# Brigham Young University 2000–2001

# Speeches

## Light, Visions, and Dreams

MERRILL J. BATEMAN

19 September 2000

Complete volumes of *Speeches* are available wherever LDS books are sold.

Publications & Graphics BYU, 218 UPB, Provo, UT 84602-1919 (801) 378-4711 http://speeches.byu.edu speeches@byu.edu

### Light, Visions, and Dreams

### MERRILL J. BATEMAN

**D** efore I begin the formal part of my talk, **D**I wish to express appreciation to Sister Bateman for the wise counsel given today and for the extraordinary companion she has been to me through four decades. While I have tried to fulfill my dreams, many of which pertained to a temporal setting, she has focused solely on matters of eternal consequence. Her time and energy have been given to supporting a husband, raising children, befriending neighbors, visiting those with special needs, and creating a wonderful, peaceful home. She is a quiet, self-effacing woman—one who does not seek the limelight. Her life is one of devotion to the Master. It is one of unselfishness. I cannot thank her enough. Although my words are embarrassing to her, I pay tribute to a remarkable friend and companion and hope that many of you will come to know her personally.

The semester is more than three weeks old, and this is Sister Bateman's and my first opportunity to welcome you to campus. We are grateful for all of you assembled. You are an incredible student body gathered to learn from a world-class faculty and staff. This is a marvelous campus. We hope you appreciate living each day in one of America's most beautiful settings. The beauty of the flowers, the treelined walkways, and grass-covered quads

create a peaceful atmosphere accented by the mountains, blue skies, and exceptional facilities. The setting created by the Lord and the board of trustees establishes a standard for our purpose and dreams. The purpose of Brigham Young University is to educate the minds and spirits of students in a learning environment that increases faith in God and the restored gospel. Our dream is the fulfillment of President John Taylor's prophecy, in which he stated:

You will see the day that Zion will be as far ahead of the outside world in everything pertaining to learning of every kind as we are to-day in regard to religious matters. You mark my words, and write them down, and see if they do not come to pass. [JD 21:100]

Today my thoughts are centered on the dreams and visions that inspire temporal and spiritual progress and the principles that produce growth and achievement. Scientific discoveries during the last 100 years exceed the cumulative findings of all the centuries that preceded it. I do not believe that the increase in knowledge is happenstance. It is part of the

Merrill J. Bateman is the president of Brigham Young University. This devotional address was given on 19 September 2000 in the Marriott Center. Lord's plan as He bestows additional light upon the earth's inhabitants. The Lord told Joseph Smith that the restoration of the gospel would be but a beginning to the light that He would pour out upon the earth—not only spiritual light but also light that pertains to this temporal world (see D&C 121:26–32).

During the preparation of a recent talk given to the faculty and staff, I became fascinated with the nature of light and its characteristics. All of us are aware of the natural light that emanates from the sun, which provides the heat and light that sustains temporal life on earth. In contrast, few of the earth's inhabitants are aware of the spiritual light that emanates from a different Son—our "bright and morning star" (Revelation 22:16). Even fewer people appreciate the close relationship between spiritual and natural light.

Physicists have studied light for many years, fascinated by its dual nature. Photons of light behave like streams of particles in some circumstances and like waves in others. In a diffraction experiment, light appears to be a wave. When light is used to bombard certain materials, it appears to be composed of particles. The German physicist Max Planck developed a theory in the early 1900s that "helped explain how tiny particles, such as photons, behave like waves. His theory . . . helped scientists accept the idea that light behaves like both particles and waves" (World Book Encyclopedia, 1974 ed., "The Nature of Light," s.v. "Light").

Another form of light not studied by physicists is light in the spiritual dimension. At Brigham Young University we are privileged to know about, access, and benefit from a more refined light that emanates from Christ. It, too, is the source of life—eternal life. This light, the Light of Christ, is the source of truth. In speaking to Joseph Smith, the Savior said:

For the word of the Lord is truth, and whatsoever is truth is light, and whatsoever is light is Spirit, even the Spirit of Jesus Christ. And the Spirit giveth light to every man that cometh into the world; and the Spirit enlighteneth every man through the world, that hearkeneth to the voice of the Spirit. [D&C 84:45–46]

In the study of light, physicists have discovered that light has a spectrum. The visible portion of that spectrum displays many colors. The light spectrum has proven useful as physicists and engineers have designed equipment that allows each color to be used as a conduit, thereby multiplying the carrying capacity of light.

The visible spectrum of light has a spiritual counterpart. The spiritual spectrum pertains to various levels of intelligence, beginning with animal instinct and moving to more refined forms of light and truth. The higher gradations include man's reasoning ability and conscience, the light that comes through the Holy Ghost prior to baptism, and the light one receives through the gift of the Holy Ghost after entering the Lord's kingdom. Finally, a fullness of light is received when one has proven worthy of the Second Comforter and receives the "more sure word of prophecy" (2 Peter 1:19; D&C 131:5). (The spiritual spectrum of light is based on statements by Parley P. Pratt in Key to the Science of Theology, 9th ed. [Salt Lake City: Deseret Book, 1965], 46-47; and Charles W. Penrose, *JD* 26:21–22.)

More than 100 years ago, President Charles W. Penrose, citing section 88 of the Doctrine and Covenants, stated that the physical and spiritual spectrums of light are related and belong to one continuum. Speaking of the Light of Christ, the Spirit of God, he said:

It is the light and the life of all things. It is the light and the life of man. It is the life of the animal creation. It is the life of the vegetable creation. It is in the earth . . . ; it is in the stars . . . ; it is in the moon . . . : it is in the sun, and is the light of the sun, and the power by which it was made; and these grosser particles of light that illuminate the heavens and

enable us to behold the works of nature, are from that same Spirit which enlightens our minds and unfolds the things of God. As that light comes forth from the sun, so the light of God comes to us. [Charles W. Penrose, JD 26:21]

Brigham Young University is part of the miracle of the Restoration. The goal of the university is to be filled with light and truth—both temporally and spiritually. In order for this to occur, all of us assembled must be diligent and obedient in pursuing truth if we are to be conduits of the full spectrum. Brigham Young University is unique in that it is the only university that can develop curriculum in the context of the restored gospel. This is our core competency. We will fulfill John Taylor's prophecy if we are worthy to abide the influence of the Lord's Holy Spirit.

Centuries ago the Old Testament prophet Joel spoke of our day and of the events preceding the Lord's second coming in the following words:

And it shall come to pass . . . that I will pour out my spirit upon all flesh; and your sons and your daughters shall prophesy, your old men shall dream dreams, your young men shall see visions. . . .

And I will shew wonders in the heavens and in the earth. [Joel 2:28, 30]

The Lord promised Joel that he would pour out His Spirit upon young people, that your generation would see visions that would light the way and provide insights to increase faith and improve life. Sometimes in thinking of visions, dreams, and revelation, we think of an epiphany—an extraordinary event like Joseph's vision in the Sacred Grove or the appearance of Moroni. Generally, however, that is not the way the Lord works with us. More often, revelation comes quietly in the form of thoughts and ideas that seem to be pure intelligence flowing into us and teaching us things we did not know. The Prophet Joseph Smith, in speaking of revelation, said:

A person may profit by noticing the first intimation of the spirit of revelation; for instance, when you feel pure intelligence flowing into you, it may give you sudden strokes of ideas, so that by noticing it, you may find it fulfilled the same day or soon. [TPJS, 151]

I received a letter from a young BYU student describing such an experience. A portion of the letter reads:

Recently I sat in a physics class and had the Holy Ghost teach me. We were discussing fiber optics and how light travels perfectly through strands of [glass] without losing energy. I realized as the lecture proceeded that all things point to Christ. Christ has all power and never "loses energy" as He influences our lives. I sat in awe at the understanding that came to me; not a physical understanding but a spiritual enlightenment filled my soul. I came out of that lecture on a spiritual high. [Letter from Patricia Farr, 7 August 2000]

The young woman's insight is profound. As an infinite source of all power, the Savior does not lose energy as He assists us in the learning process and in our quest for eternal life. The student's connection to the Spirit and her insight illustrate the power of learning when temporal understanding combines with faith to produce a spiritual confirmation.

I ask, "What are your visions and dreams for the 21st century? What are your goals and aspirations?" You represent the doctors, lawyers, scientists, artists, writers, and business leaders of the future. Are you living worthy to experience the light that the Lord wishes to bestow upon you? You stand at a critical juncture in life. You have just crossed the threshold into adulthood. Your dreams and choices will determine not only your future but the destiny of untold generations to come!

The prophet Joel also indicated that old men would dream dreams. This statement caused me to reflect on the experiences that have changed my life. Such an experience occurred

when I was about your age. In my late teens a bishop called me to be a Sunday School teacher of eight-year-olds. I will always remember the trepidation I felt prior to the first class and the wonderment that someone believed in me enough to trust young people to my stewardship. I put my heart and soul into preparing for the class. I studied the scriptures as well as the manual and enjoyed the beauty and cogency of the Lord's word. One day as I was preparing a lesson, a thought came to me regarding the importance of the Lord's teachings and the scriptures and their applicability in my life. A strong, warm sensation saturated my being as the thought passed through my consciousness. That day I felt the swellings of the Holy Spirit within me, and I sensed the power that comes when one searches the scriptures. It was the beginning of a personal testimony.

Years later, as the dean of the business school, I had another dream. It was more mundane. I remember leaving my office and entering the secretarial area. Four secretaries were at work on IBM Selectric typewriters. The noise was deafening as the keys struck the paper. If OSHA had been around, a citation would have been issued. In my mind's eye I saw the day when silent typewriters would replace the noisy ones. I dreamed of a typewriter that had a screen where the typist could see what was being typed, and the printer would be across the hall in a soundproof room driven by an electrical connection. Before I left the dean's office, an early form of the desktop computer was installed, and a wire was run from the typists' pool to a noisy printer on the other side of the building. Today the desktop computer is much faster, the screen is in color, and the laser printer is silent. I learned that one's dreams can be fulfilled by the genius of others. And the end is not in sight. Computer and other forms of technology will continue to improve.

Professors at BYU and at other institutions are working on a technology called configurable logic that has the potential of speeding up com-

puters by orders of magnitude. Professor Brad Hutchings and his colleagues have developed new ways of designing computer chips that increase computer speeds by 10 to 100 times. Where did their ideas come from? I wonder what their dreams were when they were students! What an opportunity to learn from them.

About 20 years ago a new dream entered my consciousness. It is ongoing and is concerned with noninvasive medical treatments. At the time, my father in his seventies underwent open-heart surgery. I learned that the operation consisted of a large incision from his throat to his midsection followed by the cutting of his sternum with a saw that allowed doctors to open his chest, connect his blood supply to a machine, stop the heart, and perform bypass surgery. Following the operation I stood in the intensive care unit and touched my father's body as they wheeled him to a recovery room. The body was cool and, in some ways, reminded me of a corpse. I had a sense of the trauma that had taken place. From that day onward I have dreamed of less-invasive methods to solve medical problems.

In the intervening years I have watched with interest the progress made by the medical community. Angioplasty is a relatively new procedure for correcting diseased arteries—a method that did not exist 20 years ago. Small balloons attached to catheters can be advanced over a wire from a small incision in the groin and placed within the arterial and venous system to remove blockages. A small metal tube called a stent can also be placed within the arteries to keep them open. In many cases major surgery is prevented. Another development involves thrombolytic therapy or the ability to dissolve clots. New medicines placed in arteries and veins via catheters are able to dissolve clots, restore blood flow, and prevent amputation. This new therapy also aids stroke patients. Another procedure developed within the last few years is called embolization. A catheter is placed within an artery and chemicals are

injected to stop blood flow to tumors or to vessels that are bleeding from trauma. Often tumors that are not surgically removable can be treated in this manner, prolonging the patient's life. (This information is based on a discussion with Dr. John Collins, an interventional radiologist at Utah Valley Regional Medical Center, 16 September 2000.)

My dream is for the day when doctors will be able to perform medical procedures inside the body using ultrasound or lasers that are relatively noninvasive. Have you ever been to a doctor and wished that she or he could wave a device over you, determine what was wrong, and administer the remedy without invading the skin? Noninvasive medicine is wonderful. Is this an area in which you will have a role? As a student at BYU, you might be involved in the work of Professor William Pitt, who is developing ways of releasing chemotherapy drugs to specific locations in the body through ultrasound. Chemotherapy can be a miserable experience because, at present, the drug must be administered to the entire body. In Dr. Pitt's work the drug is bound in inert packages that do not release the drug until ultrasound is administered, and then the drug is confined to a local area. The illness associated with the procedure is thereby reduced.

Another area of the university in which you might fulfill your dream includes the work in micro-electro-mechanical systems. This interdisciplinary field produces miniature mechanisms the size of a human hair that can travel inside the human body to clean plaque from veins, monitor one's health, or perform microsurgery through remote control. Small microswitches can also be designed for the field of optics, where they are used to drive the small mirrors in a projector to refine the picture and increase the number of pixels used for each color. Another product might be a microsensor used to measure movements of buildings during an earthquake.

Perhaps one's dream might be fulfilled in BYU's Earth Remote Sensing Center, where professors are developing technology and information systems to gather data regarding the earth. Using various forms of radar and other scanning techniques, professors and students are able to locate icebergs, determine wind speeds in storms, produce more accurate weather models, and penetrate the earth's crust to find ancient cities. You might become a part of this effort because at BYU we believe that scholarly activity is an integral part of the learning process, and a significant portion of undergraduates as well as all graduate students are involved in scholarly endeavors.

Every discipline at this university represents a possible vision or dream. What is yours? Please be aware that it is normal for people's hopes and dreams to shift over time. The choices and opportunities available today may change as time passes. How do you prepare for the opportunities ahead?

To acquire temporal truths, one must be diligent in pursuing an education. We encourage you to take seriously the opportunity afforded here. Do not waste time. Study daily—at least three hours for every hour in class. That still leaves more than 100 hours per week for other things. Recently I spoke to a small group of freshmen who indicated that they did not need to study in high school to obtain A's. One indicated that he was doing well here even though he had not studied thus far. There are two problems with his thinking. The first is his belief that he will do well at exam time. The second is that he could be learning so much more if he applied himself.

To receive spiritual truths, one must be obedient as well as diligent (see D&C 130:19). Spiritual light is received when one follows the doctrine of Christ—that is, the first principles and ordinances of the restored gospel. I challenge you to increase your faith by living gospel principles more precisely, by repenting when you fall short, by taking an active role in

your ward, by rendering service to others, and by making prayer and scripture study a part of your everyday life. In this manner you will find true joy.

In closing I turn to the words of the Prophet Joseph Smith, who wrote about the connection between heaven and our intellect as follows:

We consider that God has created man with a mind capable of instruction, and a faculty which may be enlarged in proportion to the heed and diligence given to the light communicated from heaven to the intellect; and that the nearer man approaches perfection, the clearer are his views, and the greater his enjoyments. [TPJS, 51]

May each of us take advantage of the unique opportunity offered by this university to educate both our minds and our spirits I pray in the name of Jesus Christ, amen.