We have the privilege of learning the arts and sciences that the
learned among the Gentile nations understand. We have the privilege
of becoming classical scholars, of commencing at the rudiments of all
knowledge, we might say, of perfection. We might study and add know-
ledge to knowledge, from the time that we are capable of knowing any-
thing until we go down to the grave. If we enjoy healthy bodies, so
as not to wear upon the functions of the mind, there is no end to man's
learning. This compares precisely with our situation pertaining to
heavenly things, because this is what we're going to do hereafter, too.
So we might as well get used to it, we might as well get in the habit.
As long as your health will allow it, push yourself; drive yourself.
You see, students don't do that. They never think of endangering their
health any more. Well, unless you're endangering your health, you're
not doing a good job at all. Every seven years I go away from BYU on
sabbatical, and I have to learn all over again what studying is like.
We haven't the remotest conception around here what studying is like.
Students will not push themselves, they will not exert themselves; I've
never heard of anyone breaking down his health studying at the BYU.
But it's quite normal at good institutions, you push yourself to the
limit. You see, only if you reach the boundary will the boundary recede
before you. And if you don't, if you confine your efforts, the boundary
will shrink to accomodate itself to your efforts. And you can only
expand your capacities by working to the very limit. You must live on
the border, on the very limit of your capacity, to the breaking point.
Then the limit will retreat before you, you can see that. But as I
say, if you contract your abilities and do less than you can, it will
shrink to accomodate itself to your efforts. Our weaknesses are like
dogs, you see: If we walk toward them, they will run away from us.
But if we run away from them, they'll chase us. So, let's push it.
And Brigham was full of that. He never wasted any time at all. We
may live here year after year and store up knowledge and yet not have
the opportunity to exhibit it to others. But you don't acquire it for
ostentation. He says, though I have not the privilege of exhibiting
it to other people, it is on hand, whenever the time comes that it
should be used. And time and again, the strangest odds and ends of
knowledge came to his rescue and to his use. He showed amazing ability
in all practical things, and in theoretical things, too, and in politics,
government affairs, and so forth. Time and again he was able to pull
the chestnuts out of the fire or rescue a bad situation, because he
possessed knowledge nobody even dreamed he knew at all. There it was,
it had been stored in his memory all this time, just for such a situa-
tion as this, because, as I said, he fit it all into the pattern, so
it would just fit in like a brick, and it wouldn't be out of place,
and he knew how to get it up again.

"Remember, too, the great principle of improvement," he said,
"Learn, learn, learn. Continue to learn and study by observation and
read good books. This was his message to the saints. This was just the month
before he died. Learn, learn, learn, he says. We are made expressly
to dwell with those who continue to learn, that's going to be our
eternal fate, and who receive knowledge on knowledge, wisdom on wisdom;
we belong to the family of heaven, and that's the way it's going to be.
"The greatest and most important labor we have to perform is to cultivate
ourselves," he says. "Every accomplishment, every polished grace, every
useful attainment in mathematics, music, and in all science and art
belongs to the Saints, and they should avail themselves as expeditiously
as possible of the wealth of knowledge the sciences offer to every dili-
gent and persevering scholar, and that's our duty. We should cease to
be children, and become philosophers, understanding our own existence,
it's purpose and ultimate design. Then our days will not become a blank
through ignorance. It is the duty of the Latter-day Saints, according
to the revelation, to give their children the best education that can be
procured, both from the books of the world and the revelations of the
Lord." It is the duty of the Latter-day Saints, according to the reve-
lations, to do that, not neglect our children.

"I wish this people to pay particular attention to the education
of their children. If we can do no more, we should give them the facili-
ties of a common education, that they can mingle with the best society
and intelligibly and sensibly present the principles of truth to mankind." You see, it all had to do with building up the kingdom. All this is of
value in the mission field. In presenting the principles of truth to
mankind, you can't do it as a dunce or an ignoramus. And because the
Lord has given us the means of acquiring the necessary information, he's
going to hold us accountable if we don't. We simply can't say, well, I
have the Spirit, I'm full of the Spirit, I won't have to work at that
sort of stuff, that's just seedy stuff; I'm going to have straight inspi-
ration, no.

After all, what did the Lord do when he came back, after the
Resurrection, the risen Lord? He opened the scriptures to them, and
beginning with Moses and the prophets, he explained all the scriptures
to the apostles. There he was, the living Lord who had dictated those
scriptures. He did the same thing with the Nephites. He went through
the books with them, the whole thing, to see that there was nothing
left out, that everything was in correct order. He rebuked them for
some things they had overlooked. He examined all these books very
carefully, and then, it said, he explained them to them in one, as
if they were one book; it's all the same story, all the same picture.

Now, we have to acquire this, this is a necessity. We cannot, if
the world won't excuse us, the Lord won't, either. He says, we should
give them the facilities of a common education. They can mingle with
the best society and intelligibly and sensibly present the principles of
truth to mankind. We should not only learn the principles of education
known to mankind; he expects the Saints not only to work, but to work
time and to work doubletime on this project. We should not only
learn the principles of education known to mankind, but we should reach
out further than this, learning to live so that our minds will gather
information from the heavens and the earth, until we can incorporate
in our faith and understanding all knowledge. You see, we gather, gather,
gathering information from the heavens and the earth.
I was just talking to Bro. MacNamara upstairs in 278, he's giving a talk on astronomy. I think we should all go up there, is what I frankly do, because nobody's interested in astronomy, apparently. Well, this is a commandment, we'd better find out about these things. We have books on these things, we have the Pearl of Great Price, you know. If I had my way I'd be there now, instead of listening to this. But fortunately, it's not me you're listening to, it's Brigham Young. So we're vindicated there. Otherwise, I'd be the first to lead an exodus from here, I assure you.

"Put forth your ability to learn as fast as you can, and gather all the strength of mind and principle of faith you possible can. Then distribute your knowledge to the people. The Lord has bestowed great knowledge and wisdom upon the inhabitants of the earth, much truth and knowledge in the arts and sciences. Those nations that deny their God and Savior will have those principles of intelligence taken away from them. Now he's looking into the future.

Yes, excuse me. "Where are you getting this information?" I can give you a specific reference to any one of these. If you want it, I can give it to you. If there's one you particularly like, stop the train. Stop the music, then. Which one? Wait, now here's a good one. He's talking about the future, see. There is great wisdom in the world. their knowledge and mechanisms and exact science is very great. This wisdom will be taken from the wicked, it will perish in time; and it has, you see. Now we realize that, through reading Santayana's stuff, some of these new science histories; or Coomb, Thomas Coomb, or Karl Popper. They talk about this. The Greeks achieved a level in science that we didn't achieve in our time in 1911, you see. But they lost it, the whole thing was taken away. And before that, there was a scientific level that was just as high as that, tremenously high, achieved by the Egyptians. We don't realize that they were just beginning to see it, but it was lost. And so we think of those people as living in barbaric ignorance. They were nothing of the sort. We haven't been able to read their books because their successors weren't able to read them. But now we realize they had it. These things can be taken away. And Brigham Young says they're going to be taken away from the world, too, in our time, if we don't look out. We can loose these things. We have already lost in certain departments. We've gained strength in others.

But actually, you read many articles on this subject. Here's one by an old buddy of mine, Glenn Sieberg, of all people. We were friends in graduate school at Berkeley, years ago. He was a big, tall, seedy fellow that always wore a very heavy turtleneck sweater that had been knitted by his mother, the heaviest in the world. He always looked half shaved, he just looked like something out of a grab-bag. But now he's the head of the atomic energy commission. He was chancellor at Berkeley some years ago, as you know. He's written a very interesting article here, which we won't have time to refer to, on this very sort of thing. They're worried about these computers because it's crippling our minds. We're not remembering anything. We're not thinking any more. And what's more, you can find a few people that can feed a computer, that know how to program and process the darn stuff, but they're fewer and fewer, and almost nobody who works with computers could make one to save his life. Very few men on earth could make an entire computer. It's all departmentalized, broken up like any assembly-line sort of thing today, and the
result is that the computers are having actually a crippling effect, and we may end up drooling idiots, because these machines are thinking for us. Well, this is what they're talking about, at any rate. But he's saying here, so it's not impossible, what he's talking about here.

He says, "Their knowledge and mechanism and exact science is very great. This wisdom will be taken from the wicked. Who will receive it? My faith and my desires are that there should be a people upon earth prepared to receive this wisdom. It should not be so forfeited as to be taken from the earth, for I question whether it would return again." It could be forfeited, this knowledge, and taken away. Now, he's not saying the Latter-day Saints are going to pick up the ball, or anything like that. He's saying, it would be a nice idea if there was somebody who could do it. "What will satisfy the mind?" he says. "Will gold, will silver, will houses, lands, and possessions? Search the world over, and you will at once discover that they will not. Will power and influence over their fellow beings satisfy? They will not. What would satisfy the children of men, if they had it in their possession? What could you give men to make them happy?" he says. "Only truth and true principles, and the conduct flowing from its observance. True, certain classes of the inhabitants of the earth are pretty well satisfied with themselves, through their researches in the philosophies of the day, and especially through the science of astronomy, which gives greatest scope to the mind. And yet they are not fully satisfied. What will satisfy us? We must be perfectly submissive to Him. Then we shall rapidly begin to collect the intelligence that is bestowed on the nations, for all this intelligence belongs to Zion. All the knowledge, wisdom, power and glory that have been bestowed upon the nation of the earth from the days of Adam until now must be gathered home to Zion sooner or later. When are we going to start? I do not wish to be understood as throwing a straw in the way of the Elders storing their minds with all the arguments they can gather in defense of their religion; nor do I wish to hinder them in the least in learning all they can in regards to religions and governments—the more knowledge the Elders have, the better."

So, he was impressed by the general ineptness of the people he had to lead. He saw what kind they were, and the first thing he said was, "We're the poorest of the poor, we're taken from the cities of northern Europe and from the farms and peasants, and so we're pretty far behind. You take the Latter-day Saints as a whole," he said, "they have but very little good, sound, worldly sense. We gather together a class of men with little or no judgment in taking care of themselves. What causes poverty among this people? It is want of discretion, calculation, sound judgment. Yet, when we examine the feelings, views, wishes, desires and aspirations of this people, we see them wandering after almost everything but what they should possess. The neglect, the idleness, the waste and extravagance of men in our community are ridiculous. I have watched our mechanics here, and their ways, if not stewed to strangers, are stewed to nonsense. I hire the best gardeners I can find, and they are ignorant of their business. I pray the Lord for you; I pray for you to get wisdom, worldly wisdom. Do not love the things of the world, but take care of what you raise. We may look upon ourselves with shamefaced, because of the smallness of our attainments in the midst of so many great advantages. In things pertaining to this life, the lack of knowledge manifested by us as a people is disgraceful. Your knowledge should be as much more than that
of the children of the world with regard to the things of the world as it is with regard to the things of the kingdom of God." There are no excuses. Yes. That's in the Journal of Discourses, Vol. 10, p. 293, in 1864.

Now, so accordingly, Brigham Young is impatient with this general sloth and indolence where things of the mind are concerned. "We are trying to teach this people to use their brains," he said, "to govern, manage, legislate, and sustain themselves, their families, and their friends. There are hundreds in this community who are more eager to become rich in the perishable things of this world than to adorn their minds with the power of self-government and with the knowledge of things as they were, and as they are, and are to become. All is before them, yet they have nothing to do but enjoy themselves. And yet their spirits are unhappy, uneasy, discontented. They want more; they are inclined to retain what they do have unlawfully. Rather, let us not be children all the days of our lives. Let us increase to a great extent our capacities that we may become men and women before the Lord. The great mass of the people neither think nor act for themselves, but are acted upon, and act accordingly, and think as they are thought for. It is, as with the priest, so with the people. I see too much of this gross ignorance among this chosen people of God. It is mortifying that the children of this world should know more about these things than the children of light. They can teach kings, queens, statesmen, and philosophers, for they are ignorant of these things, but in things pertaining to this life, the lack of knowledge manifested by this people, by us as a people, is disgraceful."

So he pleaded with them not to be afraid to use their minds. Try to improve your minds. Enrich them with every kind of true knowledge known on earth. By faith, so live as to enjoy the Holy Ghost. Learn the object of the creation of man, of the formation of the earth, of what it is composed, of what it is for. Why is gold made, for us to worship it? No, it is made to be useful for domestic and other purposes. When you come to meeting, bring your minds with you, he used to say. "I want your minds here as well as your bodies. Whatever duty you are called to perform, take your minds with you, and apply them to what is to be done." You see, he was not a pragmatist. He was just the opposite of John Dewey, as we'll see. He was not a pragmatist. You do not. Practical, successful, practical living is not the end of knowledge, but knowledge is the end of this practical living." He says, we have to do these practical things, we must do them, so make a mental exercise of it and bring your mind with you whenever you do something, and you'll find it goes much better, and you can improve as you go, and he certainly practiced it. He was the most ingenious craftsman, one of them, that this country has seen. It is unbelievable the ingenuity he displayed in anything he did, whether it was cabinetmaking or putting in a staircase or something like that: Always different, always fresh, always something original. "Ladies and Gentlemen, I exhort you to think for yourselves, and read your Bibles for yourselves, and get the Holy Spirit for yourselves, and pray for yourselves, that your minds may be divested of false traditions and early impressions which are untrue." He wanted the broadest possible curriculum, of course, for everyone. It's a very natural education, and non-specialized, in all branches, you see.
This is exactly what Sieberg is calling for here. "What I look for from the universities is the development of an education which turns out individuals of the intellectual and broadest outlook, able to understand man and the machine, and live creatively with both." Sounds like Brigham Young speaking, see. "Able to understand man and the machine," this was Brigham Young, "able to understand the mechanisms and the own purposes of our life," and so forth. Such an education could not be expected in a four year curriculum, or even a six or eight year one. It would start early, at the beginning of school, or sooner, and involve continuing education or one type or another throughout a person's life. Again, exactly what Brigham Young preaches. It should go on forever, go on continuously, and he says we should begin early. As Robert Theobald indicates, education in the age of cybernetic revolution would not be directed toward earning a living, but toward total living. Well, see what Brigham has, this is his concept also, a hundred years ago, almost a hundred years ago to the day, 1867, when he said that.

"If an elder shall give a lecture on astronomy, chemistry, or geology, our religion embraces it all. It matters not what the subject be, if it tends to improve the mind, exalt the feelings, and enlarge the capacity. The truth that is in all the arts and sciences forms part of our religion. Faith is no more a part of it than any other true principle or philosophy. Let us not narrow ourselves up for the world in all its variety of useful information and its rich hoard of hidden treasures is before us, and eternity, with all its sparkling intelligence, lofty aspirations, and unspeakable glories is before us and ready to aid us in the scale of advancement and every useful improvement. See that your children in the rudiments of their mother tongue, and let them proceed to the higher branches of learning. Let them become informed in every department of true and useful learning than their fathers are. When they have become well acquainted with their language, let them study other languages, and let them become fully acquainted with the manners, customs, laws, governments, and literature of other nations, people, and tongues. We also wish them to understand the geography, habits, customs, laws of nations and kingdoms, whether they be barbarians or civilized. This is recommended in the revelations given to us. In them we are taught to study the best book that we may become as well acquainted with the geography of the world as we are with out gardens, and as familiar with the people, so far, at least, as they are portrayed in print, as we are with our families and neighbors. Search after truth in all good books, and learn wisdom of the world and the wisdom of God, and put them together, and you will be able to benefit yourselves."

You will almost invariably find that people who are industrious in common pursuits are industrious in improving their minds, as far as they have opportunity. It's the workers that will do it, the ones who you think would be most preoccupied with other things. But those are the ones that you will find, that has always been the case among the leaders of the Church. The great, the most influential, the most, I was going to say driving, but the most active-minded of them were always the ones that cultivated their minds, were always the ones that were the best educated, too. Remarkable thing.

"Being educated is not a profession," he says, in the broadest sense, as Sieberg says. It has to be, we're not educating specialists
without patenting it. He was so inventive he never bothered to patent anything. But he was a man like Benjamin Franklin, and he would get that—anything that would save his wives work, labor, drudgery. He believed that what a machine can do, a machine should do, and people shouldn't do. Of course, this is the problem. And consider Norbert Weiner's statement that the computer is a slave, and those who would compete with slaves accept the conditions of slavery. If a computer can do your task, don't you do it: You're trying to compete with a slave. Don't do it, you're doing slave's work. You see, that's what machines do, they do slave's work, automatic stuff that a machine can do, as I say, as Brigham says. What a machine can do, a machine should do. That's what it's for. And we shouldn't, because doing what a machine can do is nothing to be proud of, is it?

The necessity that the Latter-day Saints were forced to give, first condition, of course, to practical education, and he recognized that. If any man was practical, it was Brigham Young, the great colonizer. "Where is the man who knows how to lay the first rock in the temple, or get out the first stick of timber for it, Where is the man or woman who knows how to make a single part of an interior decoration? That knowledge is not now here; and unless you wisely improve on your privileges day by day, you will not be prepared, when called upon, to engage to the best advantage in building up Zion." It's very interesting how, and this I don't think you'll find at many schools in the country, how many of our men here at the BYU are competent in so many things. Now, here's Bro. MacNamara, or well, say, the mathematician, I can't think of anybody, so many of them have built their own houses, but I know at least four or five, and they're among our best, our really intellectual best, who built their own houses. Bob Cundick, one of the finest musicians, a tremendously creative mind, you know he's Tabernacle organist now, but he's still connected with the staff down here, and he composes constantly—marvelous stuff, and a tremendous musician, teaching all the time. He built a wonderful house up here on the bench. Every stitch of it he did himself, imagine that. I couldn't do that, my land! Hales Gardner, all that terrific stone work around his house, a mathematician doing that sort of thing. It is still in our tradition, and it's a marvelous thing, it's a good thing to have, isn't it?

"I never saw a stonemason who thoroughly understood his trade. We have not a quarryman who fully understands getting out rock for the temple walls." Well, evidently, by Brigham's keeping after him, he made some impression, didn't he? "Let both males and females encourage within them mechanical ingenuity, and seek constantly to understand the world they are in, and what use to make of their existence." But he didn't mean a trade school, practical type of education. The most practical education, he said, was the broadest, and the most liberal here. As I say, it was the very opposite from the John Dewey concept. John Dewey says, "The end of knowledge is an effective, practical activity." Brigham Young says then end of all this effective, practical activity is that you learn, knowledge, you see—it's the other way around. "It is very desirable that all the Saints should improve every opportunity of securing at least a copy of every valuable treatise on education: Every book, map, chart or diagram that may contain interesting, useful and attractive matter
to gain the attention of children and cause them to love to learn, to read, and also every historical, mathematical, philosophical, geographical, geological, astronomical, scientific, practical, and all other variety of useful and interesting writings for the benefit of the rising generation. We wish to introduce into our schools every useful brand of learning that is now taught in the highest schools and colleges in the new and old worlds, and thus prove to God and mankind that our object is improvement in the knowledge of all truth and in heaven and on earth that is possessed by Gods, angels, and men. If we can have the privilege, we will enrich our minds with knowledge filling these mortal tenements with the rich treasures of heavenly wisdom. Make railroads, build colleges, teach the children, give them learning of the world and the things of God. Elevate their minds, that they may not only understand the earth we walk on, but the air we breathe, the water we drink, and all the elements pertaining to the earth. And then search other worlds, and become acquainted with the planetary system, the dwelling of angels and heavenly beings, that they may ultimately be prepared for a higher state of being, and finally be associated with them."

"We prefer to have scholars. Everybody," he said, "should get a foundation well advanced in arithmetic, writing, reading, and grammar." Of course, those are still the kingpins and the weakest points in education. If you read a few compositions, you realize that, that grammar, spelling, and the math, we're still weak in those things.

He himself had great reverence for things of the mind, unaffected, just as a pure appetite, and this is an important part of his whole philosophy of education. It is not ulterior at all. That's why I say he's not a pragmatist, not by any means. He doesn't believe, like John Dewey, that this life ends here, and that's the end. No, "there's a divinity in each person, male and female," he says. "It is the human that shrinks from the presence of the divine. And this accounts for our man-fearing spirit, and all there is of it. This intelligence which is within you and me is from heaven. In gazing upon the intelligence reflected in the countenances of my fellow beings, I gaze upon the image of Him whom I worship, the God whom I serve." Can you find a more beautiful expression than you have here in Brigham Young, of respect for his fellow man, and reverence? "I see His image, and a certain amount of His intelligence there. I feel it within myself. My nature shrinks at the divinity we see in others. It is seldom that I rise before a congregation without feeling a childlike timidity. If I live to the age of Methuselah I do not know that I shall outgrow it. There are reasons for this that I understand. When I look upon the faces of intelligent beings, I look upon the image of the God I serve. This mortality shrinks before that portion of divinity which we inherit from our Father. This is the cause of my timidity, and of all others who feel this embarrassment when they address their fellow beings." He felt over-awed in the presence of his fellow beings. Notice it wasn't the idea of the master man, the leader, he had no obsessions with that at all. He was as overwhelmed in the presence of children, as he says here: "I inquire, where is this intelligence which I see more or less in every being, and before which I shrink when attempting to address a congregation? Where is the man who can arise to address children without feeling this same modesty?" It's nothing to feel superior about,
it's wonderful respect for the people he was leading.

Here's more of his behavior, and we talked about his leather couch the first time. He says, "You let a man talk, and he'll tell you who he is." He says, "You act out what is naturally in you, and I can tell by the acts, by the faces, by the doings of men what is in their hearts." He certainly could; he was a great psychologist. This is behaviorism, you see: You act out what is naturally in you. The most practical of men, as I say, was the least pragmatic. And this is his principle—again, what do you love truth for? Is it because you can discover beauty in it, because it's congenial to you? Or because you think it will make you a ruler or a lord? If you can see that you will attain to power on such a motive, you are much mistaken. It is a trick of the unseen power that is abroad amongst the inhabitants of the earth that leads them astray and binds their minds and subverts their understanding to think they can gain knowledge because knowledge is power. Suppose that our Father in Heaven, our Elder Brother, the risen Redeemer, the Savior of the World, or any of the Gods of eternity should act upon this principle: To love truth, knowledge, wisdom, because they are all powerful. They would cease to be Gods, and as fast as they adopted and acted upon such principles, they would become devils and be thrust down in the twinkling of an eye. The extension of their kingdom would cease, and godhood come to an end, if they sought knowledge for any other reason than that it was lovely to them. Of course, this is a basic principle with Brigham Young. It's the same thing as Aristotle, in the first book of metaphysics, it's much the same thing. You don't seek knowledge because you need it, because you die without it, any more than you drink because you'll die if you don't drink or eat because you'll die if you don't eat, and you breathe because you'll suffocate if you don't breathe. That isn't why you breathe, and that isn't why you drink. You drink long before you're in danger of dying of thirst, don't you? And if you had to wait until you were in danger of dying of thirst until you drank, you wouldn't be alive very long. It's your nature to drink and eat and enjoy this process. This is the process of living—it's wonderful! You live in it, you bask in it, it's a pleasure to breathe. So you breathe long before things begin to go black, you see. And Brigham Young says the same thing about learning. It's just as natural there. And if you don't have that naturally there, you're going to be in danger, because this has great survival value, you see. He proved that time and again. And if you wait until it has to be shown you that you must learn this in order to survive, you've had it. You might just as well not bother. You learn it long before, because that's the way you're built.

"Truth, wisdom, power, glory, light and intelligence exist upon their own qualities. They do not, neither can they exist on any other principle. Truth is congenial with itself, and light cleaves unto light. It seeks after itself, and clings thereto. It is the same with knowledge and virtue and all the eternal attributes, they follow after and attract each other. If not applied to this purpose, but to the groveling things of earth," the practical education, "it will be taken away and given to one who has made better use of the gift of God. When the spirit of revelation from God inspires a man, his mind is open to behold the beauty, order and glory of the creation of this earth and its inhabitants, the object of its creation, in peopling it with his children. We are so organized that we can learn but a little at a time. And the little we do learn should be
that kind of knowledge which will bring us, as individuals and as a community, temporal and eternal salvation. "Truth cleaves unto truth," he says, "because it is the truth. It is to be adored because it is an attribute of God, for its excellence, for itself." (He underlines that.)

"Will education feed and clothe you?" I think this should be put on a bronze plaque and put up in the halls of the McKay building, probably. Well, it reads this way: "Will education feed and clothe you, keep you warm on a cold day, or enable you to build a house? Not at all." It will benefit, at any rate. "Should we cry down education on this account? No. What is it for? To improve the mind; to instruct us in all arts and sciences, in the history of the world; in the laws of nations; to enable us to understand the laws and principles of life and how to be useful while we live." So the whole principle here, you see, is the acceptance of the other world, and this is a very important thing, too. He was not a naturalist, you see. All our present-day educational philosophy, beginning with John Dewey, is naturalism. Man is an organism reacting to an environment, and nothing else. That's even taught here. Brigham Young gives a completely different interpretation of that. He says, here, "Instead of considering that there is nothing known and understood only as we know and understand things naturally" (that's naturalism, you see—-that knowledge is all we would ever find out about things), he says, "I take the other side of the question, and believe positively that there is nothing known except by the revelation of the Lord Jesus Christ, whether theology, science, or art." It's just the other way around. There is nothing known but what you can learn by natural principles, as an organism reacting to its environment—no, it's not that way at all. It's surprising how many scientists are coming around to his way of thinking today. Not the educators, but lots of good scientists are.

It would be very profitable, we've quoted Newton standing by the ocean, and he meant that very seriously, and so did Socrates, when he said the one thing he learned was that he knew nothing. To be aware of your ignorance is very important. Of course, Brigham Young was. He was keenly aware of it, it was brought to his attention all the time, of course. And so he means it when he says things like this: "It would be very profitable to the inhabitants of the earth to learn one fact, which a very few of the world have learned: that they are ignorant, that they have not the wisdom, the knowledge, and the intelligence outside of what is called the wisdom of man. For persons to know and understand their own talent, their own strength, their own ability, their own influence, would be very profitable to the inhabitants of the earth, though but few learn it. It may be asked, shall we go to the world for wisdom? They have none, so far as pertains to the Plan of Salvation. To be sure, they have considerable knowledge of the arts and sciences, but in those, do they understand all that has been formally been understood?" This is what Santillana is asking today, and he says "no."

Santayana

"In many points, pertaining to mechanism, men have, in modern times, been instructed by revelation to them, and this mechanical knowledge caused them to almost boast against their Creator." This is a thing often being commented on, and it sounds like a quotation from Whiteshead,
doesn't it? Because they get so "high and mighty" because the gadgets work. The success of science has turned our heads. But this was over a hundred years ago that he says this. "This mechanical knowledge causes them to almost boast against their Creator, and to set themselves up as competitors with the Almighty, notwithstanding they have produced nothing but what has been revealed to them." This is the position that is being taken by others since Whitehead pointed that out. Brigham Young points out the crippling effect of assuming that we already know the answers. That can be very damaging. The human family frames certain ideas or notions in their minds, this is what they call the paradigms, today, what Thomas Cooms calls the paradigms. We get these paradigms, every scientist has to work with paradigms, and within them. They are only temporary, though, and then they change. And when they get them arranged to suit themselves, it seems impossible to induce them to give them up. He says that's true. You get stuck with these paradigms, and they become a permanent heritage.

Well, when the most learned and scientific among men scrutinize, this is true, too—you're getting some very revealing articles, almost confessions, coming out today, by men like Quiziref, or Popper, people like that, when the most learned and scientific men scrutinize their own lives and experience they are under the necessity of acknowledging that they are faulty, weak, ignorant; that they are strangers from the covenants of the promise, having no hope, without God in the world. But, even in their own knowledge, they're the great ones, I mean, those who deal with cosmology, likely words at the end of Max Planck's autobiography, almost heart-rending, we really know nothing after all: the necessity of acknowledging that they are faulty, weak, and ignorant. Well, we must acknowledge that; we are not going to make progress unless we do.

A major problem in Brigham Young's society was communications, you can well imaging that. It necessarily had priority in his educational system, because here were all these people from many countries who spoke different languages and different dialects. They were living among the Indians, too, and it was a day dream; it really was, to a surprising degree. Well, I can remember when I first came to Provo, here, which wasn't long ago, when I came to BYU, it was after World War II, there were five churches in Spanish Fork where they still spoke Icelandic, and I used to go down and learn Icelandic. Mr. Johnson, they still spoke Icelandic, and there were some old people who spoke almost nothing else. You see, and this is in our generation, mind you. So you can imagine what it was to Brigham Young, when they started coming over here, all these people from all these countries, still speaking, Pleasant Grove up here was a Swiss colony, they spoke Swiss with an accent that no German could understand, you could cut it with a knife, and so it was. All sorts of dialects and languages. So he's always after the people to communicate. "Use good language, wear common clothing, and act in all things so that you can respect yourselves and respect each other. We wish to remember and carry out these counsels. We can improve the language we use; I want my children to use better language than I sometimes use. Still, I have thought, as the Prophet Joseph has said, when you speak to a people or a person, you must use language to represent your ideas so that they will be remembered. When you wish people to feel what you say, you have got to use language that they will
remember, or else the ideas are lost to them." Consequently, in many instances, we use language that you would rather not use. But for its vigor, its power, he uses these things, and they are memorable. He said if he had his choice he wouldn't put it that way, but he does, so they will talk about it and remember it.

"How precious is the gift of communication. How delightful it is to a person whose mind is stored with rich ideas to have power to communicate them to his fellows, to his family, friends, and acquaintances with whom he associates. I thought while Brother Rich was speaking upon certain principles who beautiful, how satisfactory it would be to the Saints." Now Brigham Young speculated on this idea of communications much along the lines they are speculating today, and he had some very advanced ideas, and devised the Brigham Young alphabet. Incidentally, I just learned today, up in Salt Lake, they have just discovered an entire Bible in the Deseret Alphabet. We never realized, they didn't know before that the entire Bible had been got out in the Deseret Alphabet. And Edward Meyer said that was the greatest cultural achievement of the 19th century, was that Deseret Alphabet, for all it signified, and so forth. It was a very good phonetic alphabet. Brigham Young tells us here why he devised it. It was excellent; it would have been very much to our advantage to have kept it. But of course, there were various reasons why we couldn't. He says here, "I thought while Brother Rich was speaking on certain principles how beautiful, how satisfactory it would be to the Saints could they converse in a pure language, if they could have the language of angels with which to communicate with each other." He talks on, when you could reduce the cues, when a simple gesture would express a sentence, and so forth. He has very sophisticated ideas about that. "We are bound to use the English language, which is scarcely a similitude of what we want. I long for the time when the point of the finger or the motion of the hand will express every idea without utterance." He recognized that language is a hindrance to communication, and not a means. Actually, people do not use language as a means of communication. This is an interesting thing. You can see that you can cut down language to one percent of the words and gestures we use, and it would be just as effective. We don't do that; it's a means of expressing yourself. There have been a lot of books written on that, most recently a very interesting one by Walter Otto, on that subject, called . But if you could reduce your cues, you see, in Arabic they have a principle called the , the permutative. If you know what I'm talking about, it doesn't make any difference what words I use, does it? If we're talking about a horse, and I use the word "dog" or "cow" instead of "horse," it doesn't lead you astray at all. And they do that all the time in the permutative, you see. And so you get talking in what you might almost call "kennings" in which they use language, way, what on earth are they talking about? As long as they know, that's all that matters. If I say, "I saw a dog" and it means "I milked the cow, and you know what I mean, that's all that matters. It takes two to communicate; and once you get this called an , then it's as between very old couples who've lived together all their lives. Then you get to the point where a mere nod, a mere wink or gesture will speak words.

Well, Brigham used to meditate about these things, a lot of time he had for meditating; nevertheless he thought about everything, and this
problem of communications did interest him very much. "I hope to see
the time when we shall have a reformation in the orthography of the English
language," (this was what Bernard Shaw worked for all the time, you know)
"among this people, for it is greatly needed. Such a reformation would be
of great benefit, and would make the acquirement of an education much easi-
er than at present." And he's right, too. "I should also like our school-
teachers to introduce phonography into the schools, too, shorthand and
phonetic writing. This is a delightful study. In these and all other
branches of science and education we should know as much as any people
in the world. We wish to introduce this alphabet into our schools," and
it was introduced, and throughout the eighties it was used, "and conse-
quently we give this public notice. We have been contemplating this for
years. The advantage of this alphabet will soon be realized, especially
by foreigners. Brethren, it's very quick to learn. In ten minutes you
can learn this alphabet, and it is a phonetic alphabet, so you never have
any spelling difficulties at all." It was marvellously efficient, and it
would have saved millions of man hours, but of course, it was used by only
a small minority, and it did not spread because it bore the stigma of the
Mormons. That was the main reason. But as a practical thing, it was mar-
vellous. It was far superior to Esperanto, or something like that, the
nearest thing to it, but using English as its basis, you see. The he
says, the advantage of the alphabet would soon be realized, especially
by foreigners. "Brethren who come here knowing nothing of the English
language will find its acquisition greatly facilitated by means of this
alphabet, by which all the sounds of the language can be represented
and expressed with the greatest ease."

Well, he talks about the issue here between science and religion,
and has some very interesting, he went on a trip and discussed things
with Major Powell, down in the canyons. They discussed geology; he talks
about intellectual pride and the emptiness of learned establishments as
a rule. This is very true, I think. He says, you see, what you have in
any science or scholarship or any field, is a body of knowledge that you
take for granted and you work with in a familiar way. That's the way
you can get much more done, that way. But it is a paradigm, and it's
more or less arbitrary, and it wears out after a while and begins to creak
at the edges, and then it has to be replaced by another paradigm. It is
not replaced by building on, by gradually developing. This is one thing
that has been shown in a very interesting book, this one of Cooms, that
the whole paradigm is shoved aside, like newtonian gravity, and Einstein
takes its place.

He says here, "All the learned crow one tune, say one prayer, and
mainly act just alike." When that's true, you can tell where a professor
came from, a famous university, by his mannerisms. Without knowing it,
he acquired the high, huffy tone of Cambridge, or the didactic "Das ist
eben so, wir Ihnen gesagt haben," Berlin, you can notice that a mile away,
you see. Or the insufferable Oxford mouthful of mashed potatoes, and so
forth. But these things are inherited by scholars that spend much time
at particular institutions. As he says here, they act just alike. They
adopt the mannerism.

"The learned world, so called, is a great mass of ignorance," he
says. "But it is a conspiracy. As the old cock crows, so the young cock.
I used to think until I was 45 years of age that I had not knowledge, sense, or ability enough to associate with men of the world, until I learned that the inhabitants of the earth were groveling in darkness and ignorance, and that their professed knowledge contained but few correct principles, and that they were but a set of automatons on the stage of life following the maxim, 'as the old cock crows, so crows the young.' Tradition seizes upon the scholar when he first commences his education." This is the paradigm, this tradition you are brought up in. Of course, it is so. You are given a strictly one-sided education, because you are trained in this field with this point of view. "Tradition seizes upon the scholar when he first commences his education, and more or less clings to the human family throughout life, and we have to deal with people according to their understanding. They are only capable of receiving a certain portion at a time." And so he goes.

So isn't it wonderful to have a university named after a man with such a universal mind, a man, as I say, eleven days at school. What would he have done, if he had had some of the other opportunities? Well, he had opportunities to shine in other ways. But he missed this education, and he worked for it and he got it.

His views on recreation were revolutionary, as you know. He loved the theatre. "Upon the stage of the theatre can be represented in character evil and its consequences, good and its happy results and rewards." It's interesting, with this matter of censorship, and so forth. "The weaknesses and follies of men; the magnanimity of virtue and the greatness of truth. The stage can be made to aid the pulpit in impressing upon the minds of a community an enlightened sense of a virtuous life; also a proper horror of the enormity of sin and the just dread of its consequences." You present the evil, the seedy side of things, too, in the stage. That's part of it. You don't rule that out, just because it isn't pretty.

Well, we should have an increase. Then he talks about practical education for the young and so forth, but we won't have time to talk about that and so forth. So if there are no questions, we will break it up, and go home and study. How about that? Rafferty's

**Question:** I've read quite a bit of Dr. Max Rabet's writings lately, and it seems to me that there are several areas where he parallels . . .

Well, in the emphasis on fundamentals, yes, and that sort of thing. Brigham Young was a much more broad-minded man, though. We're not talking about that particular phase of it. Notice, he's broad and universal minded. As the leader, his first rule was, don't judge anybody, take people as they are, don't try to make them as you are, and so forth. Well, Rabet does that, see. He doesn't have Brigham Young's breadth there. And next we talked about Brigham Young as a statesman. Then, the same thing: this love, the forbearance, the wide latitude in dealing, say, with the Indians, the way he discussed the burning issues just before the Civil War.