The Meaning of the Temple

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Recently in our family night, I was supposed to talk about the meaning of the temple in light of the gospel. One of the many distinguishing features of our time is the availability of really good popular science summaries written by top men in various fields; and none of us should neglect these, no matter what our own fields are. Any field of serious study today is necessarily highly specialized, and at the same time it calls for branching out into related fields. These summaries go far beyond the popularizing of another day. Because of our marvelous processes of photographic reproduction, magnificently illustrated books on every branch of science are now available.

For example, recently I looked at P. T. Matthews's The Nuclear Apple, and before that, it was the biologist Lyall Watson's book Supernature, and before that, Nigel Calder's broad survey of recent studies of the brain called The Mind of Man. That same Nigel Calder, who works for the British Broadcasting Corporation, goes all around the world getting up television programs of very high caliber. Thus, while surveying recent astronomical developments, he consulted with major astronomers in every part of the world and so built up the programs. The last one was called the Violent Universe. It was required reading in our Honors Program (and probably still is), and he recently has put out one on the new geology, plate techtonics, which he calls the Restless Earth. The data of these books is significant. The Violent Universe, Restless Earth, and Supernature—that is not the way I heard it when I went to school.

In my day, everything was pretty well under control. At best we had a tolerant scientific smile for anything suggesting catastrophism or any dramatic or spectacular event in history or in nature; this kind of stuff smacked of the apocalyptic visions of Mormonism, things classed in the lunatic fringe, apocalyptic sensationalism. There was no place in modern thinking for that sort of thing. Yet in all these books, regardless of the fields, authors today seem to be saying much the same thing. They all come to one very interesting conclusion, which a few quotations will make clear.

First, one basic proposition receives particular attention in all of them, the well-known second law of thermodynamics: everything runs down.1 And it is stated with strong and bemused reservations, because there is something wrong with it. Let us quote Watson, the biologist (and I understand he has a great reputation in England):

Left to itself, everything tends to become more and more disorderly, until the final and natural state of things is a completely random distribution of matter. Any kind of order is unnatural, and happens only by chance encounters These events are statistically unlikely and the further combination of molecules into anything as highly organized as a living organism is wildly improbable. Life is a rare and unreasonable thing. [He belabors the point]: Life occurs by chance, and the probability of its occurring and continuing is infinitesimal.2

There is no chance of us being here at all. Furthermore, "the cosmos itself is patternless, being a jumble of random and disordered events."3 It is not just life that is improbable, but the fabric of life itself—matter. The nuclear physicist P. T. Matthews asks,

Why is the proton stable, . . . since this is clearly crucial to the world as we know it? From the atomic point of view, the proton is one of the basic building blocks. Yet from the behavior of the other hadrons, . . . there is no obvious reason why it should not disintegrate into, say, a positive pion and neutrino, which is not forbidden by any conservation law.4

(The only two stable hadrons are the neutron [n0] and the proton [p+]. The neutron has a mean life span of 3 x 103 sec [about 50 minutes]. All other hadrons have mean life spans of from 10-8 to 10-18 seconds). Matthews goes on to explain the factors that determine the stability of the proton: "The rate of decay of any particle depends partly on the strength of the interaction and partly on the 'amount of room' it has into which it can decay."5 To describe what he means by "amount of room," Matthews draws an analogy of a room full of objects: "For every object in the room, there are, of course, vastly many more positions in which it would be considered out of place. When these possibilities for all the objects in the room are multiplied together, the number of untidy or disordered states exceeds the ordered ones by some enormous factor."6

Then he moves into the domain of the second law of thermodynamics and a mathematical description of this concept. Matthews continues, "The logarithm of the number of different states in which a system can be found is called the entropy. Thus the entropy of tidy or ordered states is very much less than that of untidy or disordered ones."7 To give us an idea about the magnitudes of the numbers we are dealing with, he presents the analogy of a deck of cards:

The rate at which numbers build up in the Second Law situation can be illustrated by considering a pack of playing cards. We can define an ordered, or tidy, state to be one in which the cards are arranged by value in successive suits. There are just twenty—four such configurations which arise from the different possible orderings of suits. This is itself a surprisingly large number, but the number of different ways the fifty-two cards can be arranged is about ten thousand million, million, million, million, million, million, million, million, million (1052). The chance of finding a shuffled pack in an ordered state is the ratio of these two numbers [24/1052].8

Matthews continues:

The relevance of this to our problem is that one may think of a proton at rest as a very highly ordered condition of a certain amount of energy—the rest energy of the proton—which can exist in just one state (strictly two if we allow for two possible orientations of the proton spin). If the proton can decay by any mechanism into two or more lighter particles, these serve to define an alternative condition of the system which is relatively highly disordered, since it can exist with all conceivable orientations. The number of allowed states depends on the relative momentum of the decay products much as the number of points on the circumference of a circle depends on its radius. The decay interaction is the shuffling agent . . . If it exists and operates on a time scale comparable with the age of the universe, then by relentless operation of the Second Law, essentially every proton would by now have decayed into lighter particles . . . Clearly the opposite is the case, and there must be some very exact law which is preventing this from happening.9

Had all the protons decayed, there would be no stable atoms, no elements, no compounds, no earth, no life. When the biologist said that life was wildly improbable, a rare unreasonable

event, who would have guessed how improbable it really was? "A human being," writes Matthews, "is at very best, an assembly of chemicals constructed and maintained in a state of fantastically complicated organization of quite unimaginable improbability."10 So improbable that you can't even imagine it. So "wildly improbable" that even to mention it is ridiculous.11 So we have no business being here. That is not the natural order of things. In fact, he says that "the sorting process—the creation of order out of chaos—against the natural flow of physical events is something which is essential to life."12 So the physical scientists and the naturalists agree that if nature has anything to say about it, we wouldn't be here. This is the paradox of which Professor Wald of Harvard says, "The spontaneous generation of a living organism is impossible . . . In this colloquial, practical sense I concede the spontaneous origin of life to be 'impossible."'13 The chances of our being here are not even to be thought of, yet here we are.

So as I say, in my school days it was fashionable to brush aside Paley's watch argument with a snort of impatience. If you're walking on the beach and find a beautifully made Swiss watch, you should not with Archdeacon Paley conclude that some intelligent mind has produced the watch. It proves nothing of the sort. Finding the watch only proves, quite seriously, that mere chance at work, if given enough time, can indeed produce a fine Swiss watch or anything else. Indeed, when you come right down to it, the fact that Swiss watches exist in a world created and governed entirely by chance proves that blind chance can produce watches. There is no escaping this circular argument, and some people use it. Today Professor Matthews states the same problem more simply:

If, after seeing a room in chaos, it is subsequently found in good order, the sensible inference is not that time is running backwards, but that some intelligent person has been in to tidy it up. If you find the letters of the alphabet ordered on a piece of paper to form a beautiful sonnet, you do not deduce that teams of monkeys have been kept for millions of years strumming on typewriters, but rather that Shakespeare has passed this way.14 But to Professor Huxley or Professor Simpson this is sheer heresy or folly. It was the evolutionist who seriously put forth the claim that an ape strumming on a typewriter for a long enough time could produce, by mere blind chance, all the books in the British Museum, but did any religionist ever express such boundless faith? I don't know any religious person who ever had greater faith than that. Yet serious minds actually believed such an impossibility. They say it is impossible, but then it happens.

Remember, "the decay interaction is the shuffling agent [and] . . . by the relentless operation of the Second Law, essentially every proton would by now have decayed into lighter particles . . . Clearly the opposite is the case." Now "there must be some very exact law which is preventing this from happening."15

Kammerees new law of seriality is in direct opposition to the second law: there is "a force that tends toward symmetry and coherence by bringing like and like together."16 That is a very interesting point. We say that light cleaves unto light, etc. What is that force? Nobody knows. They say it is there because you see it working. Buckminster Fuller calls it syntropy.17 The greatest Soviet astrophysicist today, the Soviets' foremost man in that field, Nikolai Kozyrev, has been working for years on this question. He claims that the second law of thermodynamics is all right, but it doesn't work. Something works against it, something stronger. He says,

Some processes unobserved by mechanics and preventing the death of the world are at work everywhere, maintaining the variety of life. These processes must be similar to biological processes maintaining organic life. Therefore, they may be called vital processes and the life of cosmic bodies or other physical systems can be referred to as vital processes in this sense.18

We are beginning to realize with the Egyptians and the Jews that when we speak of everything, we must consider what we are not aware of, along with what we are aware of. We recognize in that principle the overwhelming rate of quantity. What we are not aware of is part of the calculation which must be used; but we've never used it before. We've just heard that anything you haven't experienced doesn't exist. Gertrude doesn't see the ghost of the King standing there. Hamlet does, yet she says she sees nothing at all; yet all that is I see."19 Granted, she doesn't see anything, but she has no right to add, "but all that is I see." if I don't see it, it is not there, because I see everything that is there. How does one know if someone else is seeing something else? The Egyptian word for everything is ntt Ãwtt: everything I know and everything I don't know. Everything we are aware of and everything we are not aware of makes up everything. So you can't say "everything," just "everything I happen to know."

Calder says in the Restless Earth, "For all who inhabit this planet, the earth sciences now supply a new enhghtenment, tantamount to a rediscovery of the earth."20 And this new knowledge has all come forth since the mid-1960s, as a result of which "suddenly geology" makes sense."21 Then what did geology make all these other years I have been at the BYU? The mid-1960s is not so far away. Calder says it is like the discovery of a new world,22 something completely different. And finally we are told by the brain specialists that "in our own time, the first attempts at . . . using computers for the translation of foreign language texts, have been an expensive failure."23 Noam Chomsky played an important part in stopping the computer people and their patrons from wasting mote effort on this hopeless task. (I used to share an office with a professor who had worked on a Russian translating machine, way back in the 1940s. He took over the project at Georgetown University, where he worked at it for thirty years and then gave it up. It just wouldn't go. Yet they were all enthusiastic: "There is no problem we cannot solve. The computer is going to solve everything for us." This hope has now gone down the drain.) We are now assured that it is only a working assumption that the mind and the brain are inseparable. Ralph Sperry, who has been doing a lot with this, says, "The brain . . . transcend[s] . . . the properties of its cells."24 There is something up and above and beyond the brain, and this is what is having a very important influence today. And now the chaos factor makes our uncertainty certain! The nuclear physicists, speaking on the same subject, say, "Between the electrical signals coming through the eye to the brain and our reaction to a tree in blossom on a fresh spring day, there is a vast gap which physics shows no signs of ever being able to bridge . . . It may even be that whatever it is that is peculiar to life and particular to thought lies outside the scope of physical concepts."25 I was also surprised to learn that in the field of the relationship of the particles within the nucleus (nuclear physics), no problem is exactly soluble: "With the present mathematical techniques, we have no idea of how to cope with this problem."26 In mathematics there is no sign that we will ever be able to solve many of these problems. We just do it by approximations—that is as near as we can get to solving them.

Two things stand out in all this. First is the awareness of an organizing, ordering force in the universe that is very active and runs counter to all we know of the laws of science. The second is the awareness of great gaps in our knowledge that may account for our failure to

discover the source of that force. This takes us directly to the subject of the temple—though you would never have guessed this from what I have said so far.

We talk a lot about the second law, but what about the first law—the law about the conservation of energy,27 which is the conservation of mass and matter, in all their forms. It is important too. With that law, the Latter-day Saints have never had any quarrel. We have always believed it. By contrast, the Christian world has its doctrine of creation out of nothing—creatio ex nihilo. Recently David Winston and Jonathan Goldstein, writing on Jewish Hellenistic thought, have shown at great length that the idea of creation out of nothing was totally unknown to the Christian or the Jewish Doctors before the fourth century A.D.28 It had no place in their doctrines. It was always taught in the early church, as the Jews teach yet, that the world was organized out of matter that was already there. This Mormon teaching was greatly offensive to the standard Christian doctrine that God created the world out of nothing. We Latter-day Saints don't quarrel with the first law of conservation of energy.

Surprisingly, we also accept the second law. In the course of nature, that law takes its relentless course. Jacob says, "This corruption [could not] put on incorruption" (2 Nephi 9:7; cf. Mosiah 16:10). There is no chance of it. As he put it, corruption is a one-way process that is irreversible: "This corruption could not put on incorruption. Wherefore, the first judgment which came upon man must needs have remained to endless duration" (2 Nephi 9:7). It could not be reversed. Incorruption can put on corruption—something can decay and break down, particles breaking down into smaller and lighter particles—but you can never reverse the process. Nevertheless, something is making it reverse. (This is what the scientists talk about. It is baffling everybody. In fact, Henry Eyring, at the University of Utah, talked about it years ago. The theory is that the universe is exploding, because it was wound up tight. But what wound it up? You have to start with that.) "This corruption could not put on incorruption," wherefore this death and decay "which came upon man must needs have remained to an endless duration." And notice how he rubs it in: "If so, this flesh must have laid down to rot and to crumble"—that is, to disintegrate into mother earth—to rise no more" (2 Nephi 9:7). That is the second law of nature, but according to Jacob, it is the first to which nature is subjected—the inexorable and irreversible trend toward corruption and disintegration; it can't be reversed. It rises no more, crumbles, rots, and remains that way endlessly, for an endless duration.

This would spell an end to everything, were it not that another force works against it. "Wherefore, it must needs be an infinite atonement" (2 Nephi 9:7), he says—in effect, a principle of unlimited application. An infinite principle is at work here. "It should be infinite"—Jacob insists on that. It can't be limited, it can't be provisional, it can't be a mere expediency; it is an infinite principle, just as much as the other principle is. Without an infinite atonement, "this corruption could not put on incorruption." We could not save ourselves from entropy. Someone else must be there to do it. Notice what atonement means: reversal of the degradative process, a returning to its former state, being integrated or united again—"at-one." What results when particles break down? They separate. Decay is always from heavier to lighter particles. But "atonement" brings particles back together again. Bringing anything back to its original state is at-one-ment. According to the law of nature (those are Jacob's words—according to the first principle), that could never happen. We noted that both the physicist and the biologist were aware of an ordering and organizing agent that opposes the second law. Matthews pays tribute to the Pythagoreans: "Why is it then that when we come to examine the inanimate world we find it controlled by laws which can only be put in mathematical terms?"29 For that matter, what do I know about it? Yet all inanimate nature conducts itself according to mathematical principles conceived of as pure theory by the human mind. Somebody must be working things out. And so we begin with the creation story.

There is matter. That is the first law: matter was always there. There is unorganized matter. Or as Lyall Watson says, "The normal state of matter is chaos."30 It always is and it always will be. The normal state of matter is to be unorganized. There is unorganized matter; let us go down and organize it into a world. That mysterious somebody is at work, bringing order from chaos. It would be easy to say we were making up a story, if we didn't have a world to prove it. Somebody went down and organized it. Matter was always there, always in its normal state of chaos; and long ago the protons should have all broken down, yet here is the world. Matter is unorganized. The temple represents that organizing principle in the universe which brings all things together. It is the school where we learn about these things. Why did the Egyptians build temples? Recently, Philippe Derchain has rediscovered a very important Egyptian temple document, the Salt Papyrus 825 (fig. 1).31 Though known for a hundred years, no one realized what it was until he discovered it again. He begins by noting that the Egyptians felt themselves surrounded by an omnipresent and ever-threatening chaos. They were intensely conscious of the second law of breaking down—it haunted them. They were hypnotized, almost paralyzed, by the terror of that breaking down; and of course you will find in no place more dramatic and uncompromising descriptions of the processes of decay and the evil of death than in the Egyptian funerary texts. They hated death, they loathed it, but they looked it in the eye anyway.

Order and security are the exception in this world. It would seem the Egyptians entered the land in a time of great world upheavals. Their own accounts are full of it; they always talked about it. They had seen nature on the rampage, and they knew man hangs by the skin of his teeth.

Scientists now tell us about the great "Permo-Triassic catastrophe."32 The great German biologist Otto H. Schindewolf calls the movement neocatastrophism, and it is indeed a different picture.33 How un-Victorian it is to give to books titles like the Violent Universe, or the Restless Earth. The earth is stability itself, as lasting and unshaken as the hills. If you but look at the daily paper, you realize that that is not the case at all.

It was the same in Babylonia. We read in the Abraham traditions that the prototemple of Babylonia, the tower of Babel, was built as a place in which to accumulate data and master the knowledge necessary to counteract—to meet, to check, to soften—any major world catastrophe. The Babylonians were scared to death—they had vivid memories of the flood and desperately determined to avoid involvement in another debacle; they thought that technical know-how could save them.

The Egyptians believed that by the mind alone, chaos is kept at a distance. This implies that the cessation of thought would ipso facto mark the end of the universe. This was the great fear of the Egyptians: the most constant preoccupation of endlessly repeated rites was to achieve unlimited, everlasting stability. It was not the earthly temple, which one could pretend to be built for eternity; eternity was static time, hierophantic time which could be attained only by constant effort of the mind. You have to work at it all the time. It was by the operation of the spirit alone that things could be effectively preserved from annihilation. I am reminded here of the marvelous book of Fourth Nephi, which describes the model society

and how it disintegrated. And you retort, "My land, they lived in a happy time, didn't they?" And, of course, happy are the people whose annals are blank. Nephi doesn't tell us anything about it, because there was nothing to report. It wasn't catastrophic; there were no crimes, no wars. But why did they lose it all? Because it was too strenuous; it required great mental exertion: they spent their time constantly in meetings and prayer and fasting—in concentrating on things (4 Nephi 1:12). The exercise of the mind was simply too exhausting. It was less wearying just to give up and let things drift, to go back to the old ways. They had to work hard to preserve that marvelous order of things.

Between the forces that create and the forces that destroy, the Egyptian saw himself as a third force, in between the other two. His business was to conserve, to preserve, to keep things as much as possible as they were. There is a force that creates and a force that destroys; humans are in between. But he could conserve only by la pensée, thought actualized by symbolic words or gestures. Along with this urgency went a feeling of total responsibility, which in return called for action.

The basic rite of the temple was sacrifice. The point that interests us here is just how the Egyptians thought they could contribute to upholding the physical world order by purely symbolic indications of thought. It was thought that really counted after all. Yet the symbols are important. They direct, concentrate, discipline, and inform the thought. To be effective, thought must be so motivated and directed. Watson's Supernature has a great deal to say on this subject.34 The one thing that all the experimenters in psychokinesis, telepathy, and ESP, and all the borderline probings into the workings of the mind (which in our day are being undertaken with such astonishing results by the most skeptical people on earth—mostly Soviets) agree on is that whenever the task is set, successful performance is directly related to the power of concentration, to the will, to the desire, to total interest and involvement. The person has to be excited; then he can do amazing things. But if the interest and concentration are not kept at a high level, nothing much goes on. When the level is high, the mind actually has a direct effect on things. The mind can do astonishing things just by thought. It is a matter of concentrating and ordering it.

This principle is illustrated in the ancient prayer circle in the temples.35 Concentration of thoughts in a single structure has a definite significance. (Much could be said about this.) For the Egyptians and the Babylonians, as for us, the temple represents the principle of ordering the universe. It is the hierocentric point around which all things are organized. It is the omphalos ("navel") around which the earth was organized (cf. fig. 39, p. 160). The temple is a scale model of the universe, boxed to the compass, a very important feature of every town in our contemporary civilization, as in the ancient world.36 (Years ago, Sir James George Frazer noticed a definite pattern among ancient religious cult practices: they all followed the same patterns throughout the whole world.37 He explained that as representing certain stages of evolution in which the mind naturally expressed itself in those forms. But since then the gaps between these various cultures have been filled in, to show that civilization was far more connected.) Civilization is hierocentric, centered around the holy point of the temple. The temple was certainly the center of things in Babylonia, in Egypt, in Greece—wherever you go. This was certainly so in pioneer Utah. This pattern descended, of course, from ancient times to the Latter-day Saint church. The pioneer Saints throughout the half-explored wastes of "Deseret" oriented their streets with reference to the temple. The street is designated first, second, third, east, west, north, or south, depending on its orientation to the temple. The temple is boxed to the compass. On the west end of the Salt

Lake Temple you see the Big Dipper represented, a very important feature (fig. 2). Like the Egyptian temple at Dendera, you had to have the Big Dipper there, representing the North Star, around which all things pivot (fig. 3).38 The main gate must face east. The sun, the moon, and the stars—the three degrees—are represented there. It is a scale model of the universe, for teaching purposes and for the purpose of taking our bearings on the universe and in the eternities, both in time and in space. And of course as far as time is concerned, we take our center there. We are in the middle world, working for those who have been before and who will come after. We are, so to speak, "transferring" our ancestors (we have their records—all quite recent; and let us remember that the genealogy records were kept in the basement of the Salt Lake Temple, where they belong) in the sense that the work for people who lived long ago makes it possible for them to project their existences into what is to come in the future.

We stand in the middle position. This earth is the Old English middan-(g)eard, the middleearth. The markas âmÃ^a u erseti of the Babylonians means the knot that ties heaven to earth, the knot that ties all horizontal distances together (cf. fig. 37H, p. 151), and all up and down, the meeting point of the heavens and the earth. It is the middle point at which the worlds above and the worlds below join. This scale model of the universe is the temple. Of course, the word for temple in Latin, templum, means the same thing as template: a plan marked out on the ground by the augur's staff, to help him determine the exact direction of the prophetic flight of birds. He sat at the cardo, the hinge or pivot around which all things turn, where the north-south line crossed the east-west line or decumanus (fig. 4). The person who was going to receive divination either by the birds or by the heavens, would sit in the center and take his bearings with regard to his carefully laid-out observatory. This was represented in the ancient stone circles. You find most of them to be of great antiquity there are over 200 of them in England and in France, in the form and model of the ancient Egyptian temple. The temple is also an observatory (fig. 5). That is what a templum is—a place where you take your bearings on things. More than that, it is a working model, a laboratory for demonstrating basic principles by use of figures and symbols, which convey to finite minds things beyond their immediate experience. There the man Adam first sought further light and knowledge. His zeal was rewarded by bestowal from above of principles and ordinances that he was to study and transmit to his children.

The temple is the great teaching institution of the human race; universities are much older than we might ever expect. A university began as a Greek Mouseion, a temple of the Muses, who represented all departments of knowledge (fig. 6). The Egyptians called it the "House of Life." It was an observatory, a great megalithic complex of standing stones (later columns and pylons), with amazingly sophisticated devices for observing and recording the motions of the heavens. A study of Stonehenge shows that it was a computer of great accuracy,39 a university set in the midst of sacred groves—botanical and geological gardens and groves; it was a "paradise," a Garden of Eden, where all life is sacrosanct. It has often been said the temple is the source of all civilization. A brief statement from a recent article explains that the House of Life in Egypt, where books (which contained some of the earliest poetry) were copied and studied from early times, was a sort of super graduate school. It was here in this part of the temple that all questions relating to learned matters were settled.

The word for poetry, poiema, means "creation of the world."40 The business of the Muses at the temple was to sing the creation song with the morning stars. Naturally, because they were dramatizing the story of the creation, too, the hymn was sung to music (some scholars

derive the first writing from musical notation). The singing was performed in a sacred circle or chorus, so that poetry, music and dance go together.41 (Lucian's famous essay on the ancient dance, among the earliest accounts, takes it back to the round dance in the temple,42 like the prayer circle that Jesus used to hold with the apostles and their wives— Jesus standing at the altar in the arms of Adam, and the apostles' wives standing in the circle with them. Some have referred to this as a dance; it is definitely a chorus.)43 So poetry, music, and dance go out to the world from the temple—called by the Greeks the Mouseion, the shrine of the Muses.

The creation hymn was part of the great dramatic presentation that took place yearly at the temple; it dealt with the fall and redemption of man, represented by various forms of combat, making the place a scene of ritual athletic contests that were sacred throughout the world. The victor in the contest was the father of the race—the priest king himself, whose triumphant procession, coronation, and marriage took place on the occasion, making this the seat and source of government. The temple, not the palace, is the source of all government. Since the entire race was expected to be present for the event, a busy exchange of goods from various distant regions took place. (This was what the Greeks called a panegyris—an assembly of the entire human race in a circle.) The booths of pilgrims served as market booths for great fairs, while the need to convert various and bizarre forms of wealth into acceptable offerings for the temple led to an active banking and exchange in the temple court. The earliest money from Juno Moneta, which had the temple on the hill in the capital, portrays the defending Juno on the coins (fig. 7). You had to bring an offering to the temple; no one came empty-handed (Deuteronomy 16:16). Coming from a great distance, you couldn't bring a pure dove, so you would exchange a token for one when you got to the temple, then make your offering. Jesus drove out of the temple the moneychangers in the courts who were changing the various monies and also dealing in goods (Matthew 21:12), as well as lambs and doves. It was the center of banking and all exchange.

Since the place served as an observatory, all things there tied to the calendar and the stars. Mathematics flourished; astronomy was a Muse. History was another Muse, for the rites were meant for the dead as well as the living. Memorials to former great ones believed to be in attendance encouraged the production of art of portraiture, sculpture, and painting. The Romans had no art, except the marvelous art of portraiture. Their ancestral busts were amazingly lifelike (fig. 8). They were cut off at the upper chest to represent the person as emerging from the earth, being rescued or redeemed from death. (It was an Egyptian custom taken over, but would have flourished anyway.) In architectural adornments, the design, the measurements, the middot of the temple structure were very significant. As a scale model of the universe, a cosmic computer, the measurements were all very important; they had to be correct. The architecture of the hierocentric structures was of prime concern.

Since from that central point all the earth was measured and all the lands distributed, geometry was essential. The writings produced and copied in the House of Life were also discussed there, giving rise to that aspect of philosophy concerned largely with cosmology and natural science. In short, there is no part of our civilization which doesn't have its rise in the temple. Thanks to the power of the written word, records were kept. And in the all-embracing relationship to the divine book, everything is relevant; nothing is really dead or forgotten. In the time of the gathering of all things together, we gather everything good that ever was—not just people—that nothing be lost but everything be restored in this last

dispensation. In an all-embracing relationship, nothing is ever really dead or forgotten. Every detail belongs in the picture, which would be incomplete without it. Lacking such a synthesizing principle, our present-day knowledge becomes ever more fragmented; our libraries and universities crumble and disintegrate as they expand. Where the temple that gave us birth is missing, civilization itself becomes a hollow shell.

The temple must be there. It is not just a myth, it is the core of all of our civilization. In 1930 this concept began to reemerge at Cambridge. The Cambridge School began calling what they taught there patternism, because they saw the ancient teachings all falling into the same pattern, which I have just described.

In the temple we are taught by symbols and examples; but that is not the fullness of the gospel. One very popular argument today says, "Look, you say the Book of Mormon contains the fullness of the gospel, but it doesn't contain any of the temple ordinances in it, does it?" Ordinances are not the fullness of the gospel. Going to the temple is like entering into a laboratory to confirm what you have already learned in the classroom and from the text. The fullness of the gospel is the understanding of what the plan is all about—the knowledge necessary to salvation. You know the whys and wherefores; for the fullness of the gospel you go to Nephi, to Alma, to Moroni. Then you will enter into the lab, but not in total ignorance. The ordinances are mere forms. They do not exalt us; they merely prepare us to be ready in case we ever become eligible.

We have been assuming almost unconsciously, note well, that our temple is of the same class as the temples of the Egyptians. Let me explain that. The ordinances of the Egyptian temple were essentially the same as those performed in ours. And that can be explained very simply: they have a common origin. The clue is given in Abraham 1:26: "Pharaoh, being a righteous man, established his kingdom and judged his people wisely and justly all his days, seeking earnestly to imitate that order established by the fathers in the first generations, in the days of the first patriarchal reign, even in the reign of Adam, and also of Noah, his father, who blessed him with the blessings of the earth" (Abraham 1:26). He sought diligently, he sought earnestly, to imitate the order that went back to the fathers of the first generation in the first patriarchal reign. The Egyptian ordinance also always had one purpose—to go back to the sp tpy—the First Time, the time of the first man, who was Adam. The Egyptians didn't have it, and they knew it. So they sought to imitate it. Interestingly, Pharaoh was worried sick about this problem. Pharaoh spent his days in the archives in the House of Life, searching through the genealogical records with the nobles of the court turning over the records, looking for some genealogical proof that he really had authority. He never found it, and it broke his heart. And "Pharaoh, being of that lineage whereby he could not have the right of Priesthood, notwithstanding the Pharaohs would fain claim it from Noah" (Abraham 1:27)—made a very good imitation, seeking very earnestly to imitate that order which went back to the beginning.

So the Egyptian result is a very good imitation of our temple ordinances (I have just finished a very large book on that particular subject).44 My book The Message of the Joseph Smith Papyri: An Egyptian Endowment takes you through the Egyptian temple without any mention of the Latter-day Saint temple at all. The latter is not necessary. It's easy to see what is going on. And all this is an open secret among scholars today, so we are not giving anything away. The ordinances do have a common origin; Abraham's comment is the clue. He said the Egyptians did imitate them. The rites of the Joseph Smith Papyri 10 and 11, known as the Book of Breathings, follow a familiar pattern. And to show that I am not reading the pattern into it, I included in the appendix of my book a number of early Jewish and Christian writings, each dealing with orthodox Jewish and Christian texts as if they were the very same ordinances, which were since lost. The ancient temple ordinances, called mysteries, are found in various degrees of preservation. If you ask what Joseph Smith knew about real temples, I reply, everything.

In this connection, there is an interesting sidelight to the word telestial, a word long considered as one of Joseph Smith's more glaring indiscretions. We know now that there are three worlds: the telestial, in which we live; the celestial, to which we aspire; and in between them another world, called the terrestrial. It is of neither the celestial nor the telestial. According to the ancients, this world is represented by the temple, the in-between world where the rites of passage take place. Indeed the root telos is a very rich word in this regard and has been treated a lot recently. It deals with the mysteries. Telos means initiation.45 Teleiomai means to be introduced into the mysteries.46 Professor Werner Jaeger of Harvard, a close friend of mine who wrote Paideia, was much exercised with that word teleiotes when he was editing Gregory of Nyssa. He claimed that Gregory was talking about the mysteries. A teleiotes is a person who has been initiated into some degree or other of the mysteries, and the completion of the degree qualifies him as complete or "perfect."47 This word root first appears as indicating various steps from beginning to end of the initiation ordinances of the mysteries. In a recent book, just out this year (1973), Morton Smith has shown at great length that the word "mystery," as used by the early Jews and Christians (taught in secret to the apostles), was nothing else than a series of initiatory ordinances for achieving the highest salvation which today are lost and unknown to the Christian world. He says we don't know what they are; but that is what Christ meant by the mysteries of the kingdom. He meant ordinances, which were necessary; and these he revealed to the apostles during his very confidential teachings of the forty days after the resurrection.48 The purpose of such ordinances is to bridge the space between the world in which we now live, the telestial world, and that to which we aspire, the celestial world. Therefore, the events of the temple were thought to take place in the terrestrial sphere. Recall that you leave the creation, and you end up at the celestial; but nothing happens in the celestial. Everything happens in the telestial and terrestrial, but not until after you leave the garden. Then the fun begins, until you arrive at your celestial rest. The whole temple represents teleiotes. It is also in the "telestial" world below, a word that nobody used but Joseph Smith. And it means that very thing—the lowest world, the world in which we are placed below the other two. Because the ordinances bridge the two worlds-the telestial and the celestial—the events of the temple were thought to take place in both terrestrial and telestial spheres, the world of the mysteries or ordinances. But the Coptic Text called the inbetween world the world of transition. This is a beautiful score for Joseph Smith. One of the most famous of all temples was that at Jerusalem. In our day there are strange stirrings as Jews and Christians begin speculating (you would be surprised by its seriousness) on the advisability of reintroducing some form of temple activity, though they are embarrassed by such basic questions as "What would we do with a temple, and who should be in charge?" But because of these new texts coming out, apocalyptic texts, all zeroing in on temples, the temple becomes the center. In Christianity and Judaism, the temple played a strangely ambivalent role; the Judaic ties have been the focus of a number of studies. The Jews like the theme, but they are afraid of it; they don't know what to do about it. They needed to exalt the temple; or else minimize it as a mere building. When the

temple stood, it was the palladium of the nation, and it came to be sort of a fetish something that we learn from Josephus. This led to the dangerous concept that as long as the people had the temple and its rites, they could consider themselves righteous and infallible; nothing would happen to them. Templum Dei, Templum Dei, Templum Dei: it is the temple of God, nothing can hurt us.

The same natural error hangs over the Latter-day Saints, incidentally, who often regard the temple as a kind of fetish. Sister Eve Nielsen, who works in the library at BYU, specializes in genealogy. She tells that when she was a small girl, she and her brothers and sisters stood at the door of their house in Manti, clinging to their mother's skirts during a terrible thunderstorm and looking at the temple, which had just been finished. Her father was up working on it. They said to their mother, "God will not let lightning strike the temple, will he?" And just as her mother was assuring them that he would not, bang!—lightning struck the east tower, which began to burn briskly. Sister Nielsen's father was in the crew that rushed up and soon put out the fire. When he came home, the children asked him what went wrong. What gives here? He explained to them that the installation of lightning rods had been discussed but not carried out. He said that God had given the means to protect the temple against lightning, and the workers neglected to use those means; they thus had no right to expect miraculous interventions. God expects us to go on the same as ever. The temple in itself is not a fetish—it is not a palladium (aegis; cf. fig. 30, p. 125); because the Jews attached their hopes in the end to a building, its destruction had the most crushing effect on them. The Christians exulted, but the Jews thought they would never be restored again because the temple had been destroyed and the Jews themselves felt utterly discouraged with the passing of the temple—it was all over with.

Everything was based on a building. Indeed, the Lord pointed this out more than once. "Destroy this temple, and in three days I will raise it up" (John 2:14). The Christian Doctors never tired of the old rhetorical clichés that discoursed on the vanity of putting one's faith in a building. Christ, we are told, destroyed the temple of stone, but the church is a spiritual temple, the only kind of temple that really counts. Do you have to have a physical temple? There we see the ambivalence of the argument. The very Fathers—Gregory of Nyssa and John Chrysostom—who inveighed against the folly and idolatry of attributing sanctity to a mere place, a mere building, were the first ones to join in the pious pilgrimage to go back to the ruins of the holy building. The church never gave sanction to pilgrimages to the Holy Land. Its leaders did not like them, but always opposed them. In no instance did the church encourage pilgrimages, but rather actually opposed them. Some people actually insisted on going back to the old order of things because they thought they could find the gospel there. This was the sense of the Crusades: the Crusaders going back to the temple to the Holy of Holies. This was in fact the project of Columbus: he wished to discover the Indies to get enough money to rebuild the temple. The Protestant pilgrims, of course, denounced the folly of going to Jerusalem, yet they have been engaged with unsurpassed vigor and passion in doing just that, especially the less ritually bound Christians, like the Quakers. They are the ones who love to make such pilgrimages. The first great modern war, the Crimean, was fought over the protection of the holy places in Jerusalem. Everybody was concerned. World history actually pivots around the temple. James T. Lowe's Geopolitics and War,49 a discussion of Halford J. Mackinder's theory, is geographically centered in that part of the world (that part of the earth where the sea penetrates the world land mass to a great distance, which makes it the geopolitical center of the world—the most strategic point for

dominating the whole world by sea or by land). But not only that, it was the ideological center. Everybody in the great seventeenth century had great schemes and plans for getting the temple back. It has been an obsession with the Christian world, and many Jews contemplate a forthcoming rebuilding of the temple. The modern world asks with lofty superiority, Why a building? Why not a spiritual edifice? Does God need gadgets? We are here in the world to familiarize ourselves with a new medium. We may neither deny the reality of solid things nor be taken up too much with them. We shouldn't become hypnotized by them. The Oriental monks went to both extremes: they utterly denied the flesh, and so as a result became obsessed with it.

We Mormons have gone all out in the past to build temples, making great sacrifices of our means. Yet we have not been attached to the buildings as such. Brigham Young nearly worked himself to death getting the Nauvoo Temple built on time. But he did not "again want to see [a temple] built to go into the hands of the wicked." After learning of the destruction of the Nauvoo Temple by fire, he said, "Good, Father, if you want it to be burned up.' I hoped to see it burned before I left, but I did not. I was glad when I heard of its being destroyed by fire, and of the walls having fallen in, and said, 'Hell, you cannot now occupy it."'50 It was just a building after all. Why then should he knock himself out? We strive to make our temples beautiful, but if in the eyes of many of us some turn out to be something less than breathtaking, that doesn't dampen our enthusiasm for what goes on in them. My favorite temple is certainly the Provo Temple, though as a building I give it very low marks indeed. We are not attached to the building as such (it is but an endowment house). Basic to all temples is their exclusiveness and isolation. The temple is something set apart. Each dispensation is marked by the return of the temple and its ordinances. The temple lies at the center of apocalyptic literature. Without a temple, there is no true Israel. For there alone is the priesthood; with the destruction of the temple, the Jews also lost the priesthood. And the rabbis rejoiced. We are told that as the temple was burning, the rabbis went to Vespasian and asked (Titus was doing the job) for permission to build the first rabbinical school at Jamnia, and they got it. They actually rejoiced in the fall of the temple. The Christian Doctors also rejoiced over the destruction of the temple, gloating over it because it meant the end of the Jews. Without the temple, there could be no Judaism; it could never come back again. This theme very much concerns them now. In 1948 President Truman's emissary had a long discussion with the Pope, who was very emphatic when he said that whatever happens, the Jews must never again build a temple. It was very important; they must never go back to Jerusalem, because the prophecy is that they can never go back. The prospect alarmed and annoyed the Christians, but it also fascinated them; they couldn't leave it alone.

The basic institutions of civilization were defined ultimately in the temple or derived from the temple. Many of those institutions became rivals—bitter rivals—of the temple, effectively displacing it. Thus the ancient Sophists took over education. When they did so, the university became an anti-temple, which it has remained ever since adopting the forms of the temple to discredit its teachings and doctrines.

In our day, as in various other times in history, the sanctity and the authority of the temple have been preempted in the religion of mammon, for example. Our banks are designed after the manner of ancient temples, with imposing fronts, ceremonial gates and courts, the onyx, the marble, the bronze—all are the substances of ancient temples. The sacred hush that prevails, the air of propriety, decorum, and dedication; the pious inscriptions on Zions Bank's walls are quotations from Brigham Young (the one man who really had it in for business). The massive vault door, through which only the initiated may pass, gleams chastely in immaculate metal. The symbol makes the reality of all that is safe and secure—that is, the Holy of Holies. For where your treasure is, there will your heart be also. This is the Lord speaking. We declare that our trust is in God, and we give ourselves away by stamping that declaration where it belongs—on our coins and bills.

As it comes and goes through the dispensations, the temple is the bridgehead for Zion preparing the way, a sort of outpost or outland. It is an alien thing in the world and as such it is resented. It is feared and envied; it lies as an intruder, the dread and envy of the world, an invader in a wicked and adulterous world. Zion is on the defensive. Our early Latter-day Saint temples were all designed as fortresses, with their buttresses, their battlements, their gates, their walls—always the surrounding wall. If the temple represents the principle of order in chaos, it also represents the foothold, you might say, of righteousness in a wicked world. Someone once asked me concerning the Egyptian ordinances contained in the Joseph Smith manuscripts, Is this stuff relevant to the modem world? My answer is no. It is relevant to the eternities. The modern world is as unstable as a decaying isotope, but the temple has always been the same. The ordinances are those taught by an angel to Adam.

The bringing of the temple into the world was a reminder in the days of Enoch, Noah, Abraham, Moses, Christ, and Joseph Smith that the world as a going concern is coming to a close. That little phase of human existence was about to pass away and give place to another. One of the lessons of the recent scientific research in these many fields is that the course of history and geology—thinking of that "Permo–Triassic catastrophe" now—is not one of slow, infinitely gradual, salutary evolution.51The Lord told the Prophet Joseph Smith in the first vision that he was fed up with the world: "There is none that doeth good, no not one."52 And he was about to remove it. We are told that the sudden, catastrophic housecleaning is to take place when the condition of saturation has been reached—when the people are ripe in iniquity.

The name of the Church will not let us forget that these are the last days. The last days of what? Of the rule of Belial, of the reign of Satan on this earth. In the temple, we first learn by what means Satan has ruled the world, and how it came about, and how he has ruled over the world these many years. Then we proceed to lay the foundation for that order of existence which God intends his children to have here. In both lessons, we deal with specifics. We are given a choice between them—to that degree we live up to the principles and laws of the temple. If we don't live up to them, we are in the power of the other kingdom. It is in the temple that God puts the proposition on the line, and he will not be mocked. The temple is there to call us back to our senses, to tell us where our real existence lies, to save us from ourselves. So let us go there often and face the reality, brethren and sisters.

We testify to the truth of the existence of these things. We ask, What did Joseph Smith know about the temple? He knew everything about it. He gave us the complete thing. So we know that the gospel has been restored, and that the temple is the center of things. So we must repair there often. I have gotten so I am almost an addict. I cannot keep away from the temple. I revel in it, the building I call an endowment house, lacking as it does in so many aspects—but that doesn't make any difference. We can see the ordinances and the endowments. It was built for practical purposes.

In a speech in the 1880s in St. George, Brother Erastus Snow said that every temple has a slightly different design, because it performs a different purpose (fig. 9). The St. George Temple was built after the pattern of the Kirtland Temple, to emphasize certain things. Our Provo Temple is built in a different way entirely. It functions with a different thing in mind efficiency in getting a lot of work done in a hurry, but also as a teaching tool. In 1897, scholars discovered a marvelous document called the Apocalypse of Abraham. In it, Abraham is shown an ordinance, as if in a moving picture projected on a screen. And an angel instructs him: "Now see this, . . . now this picture. You walk with me in the Garden. This is a picture of the Garden of Eden." And Abraham asks, "Who is the man here?" The angel replies, "That is Adam and the woman is Eve, and I will tell you about them."53 He leads Abraham through and then he takes him to the next picture, as it is projected on a screen. Any means we can use to convey the information, to convey the knowledge, will fulfill the Lord's purposes. So no two temples are built alike. Remember what Brigham Young said when they started to build the Salt Lake Temple with six towers instead of one? "Now do not any of you apostatize because . . . it will have six towers, and Joseph only built one."54 We live in Vanity Fair today, and the temple represents the one sober spot in the world where we can really be serious and consider these things. It is my testimony that the gospel has been restored, and the Lord intends to fulfill his purposes in these days. And whatever we ask him for, he will give us. This I tell my family without any reservation whatever. I have never asked the Lord for anything that he didn't give to me. Well, you say, in that case, you surely didn't ask for much. No, I didn't; I was very careful not to ask for much. We don't want to be spoiled brats, do we? We ask for what we need, for what we can't get ourselves, and the Lord will give it to us. Don't worry. But he also wants us to get in and dig for the rest. So I pray and hope that the Lord may inspire and help us all to become more engaged-more involved—in the work of these latter-days and visit the temple often and become wiser all the time, because he intends to give us more revelations through that instrumentality. I pray for this in the name of Jesus Christ, amen.

This lecture, originally delivered at Aspen Grove, Utah, on September 1, 1973, was given in this longer version in 1975.

Notes

1. Albert L. Lehninger, *Principles of Biochemistry* (New York Worth, 1982), 362. *First Law of Thermodynamics*: In any physical or chemical change the total amount of energy in the universe remain constant; *Second Law of Thermodynamics*: All physical or chemical changes tend to proceed in such a direction that useful energy undergoes irreversible degradation into a randomized form called *entropy*. They come to stop at an equilibrium point, at which the entropy formed is the maximum possible under the existing conditions.

- 2. Lyall Watson, Supernature (New York: Anchor, 1973), 8.
- 3. Ibid.
- 4. P. T. Matthews, *The Nuclear Apple* (London: Chatto and Windus, 1971), 69.
- 5. Ibid., 68.
- 6. Ibid., 69-70.
- 7. Ibid., 70 (see footnote).

8. Matthews, *Nuclear Apple*, 70; the numerator (24) is calculated from the formula P (n, k) = n!(n—k)!, where P = permutations, n = number of items involved, and k = the number of ways in which the items (suits) can be taken. Here we assume that the suits are already ordered from the highest to the lowest card, and we wish to calculate the permutations of the four suits (hearts, clubs, diamonds, and spades) taken four ways. Substituting into the equation we get P = 4!/(4-4)! = 4!/0! = 24. The denominator is calculated similarly: P = $52!/(52-52)! = 52!/0! = 8.066 \times 10^{67}$. (Note that Matthews underestimates the permutations of all 52 cards taken 52 ways by 15 orders of magnitude [subtracting the exponents, we get 67-52 = 15]. The ratio of numerator to denominator gives the following: $24/8.066 \times 10^{67} = 2.975 \times 10^{-67}$. Taking the reciprocal, we get: 1 to 3.361×10^{66} , or one chance in 3.36×10^{66} of getting the ordered suit from a randomly ordered deck of 52 cards.)

- 9. Ibid., 71.
- 10. Ibid., 142.
- 11. Watson, *Supernature*, 5.
- 12. Matthews, Nuclear Apple, 143.
- 13. George Wald, "The Origin of Life," Scientific American (August 1954): 4-5.
- 14. Matthews, Nuclear Apple, 143–44.
- 15. Ibid., 71.
- 16. P. Kammerer, cited in Watson, *Supernature*, 109–10.
- 17. Richard Buckminster Fuller, Intuition (New York: Doubleday, 1972), 82, 84, 110-11.
- 18. Nikolai Kozyrev, "An Unexplored World," Soviet Life (November 1965): 27.
- 19. William Shakespeare, Hamlet, act III, scene iv, line 133.
- 20. Nigel Calder, The Restless Earth (New York: Viking, 1972), 19, 21.
- 21. Ibid., 21.
- 22. Ibid.
- 23. Noam Chomsky quoted in Nigel Calder, The Mind of Man (London: British Broadcasting, 1970), 197.
- 24. Ralph Sperry, quoted in ibid., 260.
- 25. Matthews, Nuclear Apple, 141-42.
- 26. Ibid., 64.
- 27. For definition, see n. 1.
- 28. David Winston, "The Book of Wisdom's Theory of Cosmogony," History of Religions 11 (1971): 191-92;

Jonathan Goldstein, "The Origins of the Doctrine of Creation Ex Nihilo," *Journal of Jewish Studies* 35 (1984): 127— 35; and David Winston, "Creation *Ex Nihilo* Revisited: A Reply to Jonathan Goldstein," *Journal of Jewish Studies* 37 (1986): 88—91. See also Gerhard May, *Schöpfung aus dem Nichts* (Berlin: de Gruyter, 1978).

- 29. Matthews, Nuclear Apple, 144.
- 30. Watson, Supernature, 3.
- 31. Philippe Derchain, Le Papyrus Salt 825 (Bruxelles: Palais des Académie, 1965).
- 32. Nigel Calder, *The Restless Earth* (New York: Viking, 1972), 122.
- 33. Otto H. Schindewolf, "Neokatastrophismus," Zeitschrift der deutschen geologischen Gesellschaft 114 (1963): 430.

34. Watson, Supernature, 128-41, 273, 276-79.

35. Hugh W. Nibley, "The Early Christian Prayer Circle," *BYUS* 19 (Fall 1978): 41—78; reprinted in *CWHN* 4:45—99.

36. Mircea Eliade, *The Myth of the Eternal Return* (Princeton: Princeton University Press, 1974), 6—8; cf. I. E. S. Edwards, *The Pyramids of Egypt* (New York: Penguin, 1961), 256, 287, 290—96. Cf. Hugh W. Nibley, "Comments," in *Mormonism, a Faith for All Cultures* ed. F. LaMond Tullis (Provo: BYU Press, 1978), 22—28; reprinted as "Some Notes on Cultural Diversity in the Universal Church" in this volume, pages 541—49.

37. Sir James Frazer, The Golden Bough, 12 vols. (New York: Macmillan, 1935).

38. Edwards, *The Pyramids of Egypt*, 256—57, 259. See the comments by Truman O. Angell (temple architect), in "The Temple," MS (1854): 754.

39. Fred Hoyle, From Stonehenge to Modern Cosmology (San Francisco: Freemen, 1972); cf. Gerald S. Hawkins,

"Appendix B—Stonehenge: A Neolithic Computer," in Stonehenge Decoded (New York Doubleday, 1965), 174-81.

[For a review of more recent scholarship on Stonehenge as an astronomical computer, cf. Christopher

Chippindale, Stonehenge Complete (Ithaca, NY: Cornell University Press, 1983), 216-36.]

40. See Oxford English Dictionary, s.v. "poem."

41. See Nibley, "Early Christian Prayer Circle," 48-50; in CWHN 4:53-54.

42. Lucian, *Dance* 15 and 23; for an English translation, see A. M. Harmon, tr., *Lucian*, 8 vols. (Cambridge: Harvard University Press, 1936), 5:229, 235.

43. 2 Jeu 54 [40], in Schmidt, Gnostische Schriften in koptischer Sprache, 99, 193; cf. Carl Schmidt, ed., The Books of Jeu and the Untitled Text in the Bruce Codex (Leiden: Brill, 1978), 127, 147.

44. Hugh W. Nibley, *The Message of the Joseph Smith Papyri: An Egyptian Endowment* (Salt Lake City: Deseret Book, 1975).

45. Henry G. Liddell and Robert Scott, *A Greek-English Lexicon*, 9th ed. (Oxford: Clarendon, 1940; with supplement, 1968), 1773.

46. Ibid., 1772.

47. Werner Jaeger, Paideia, tr. Gilbert Highet, 3 vols. (New York: Oxford, 1944).

48. Morton Smith, The Secret Gospel (New York: Harper and Row, 1973), 16-17, 102-3, 140.

49. James T. Lowe, Geopolitics and War (Lanham, MD: University Press of America, 1981), 49-50, 65.

50. ID 8:203.

51. Calder, Restless Earth, 122.

52. The 1832 recital of the First Vision as dictated by Joseph Smith to Frederick G. Williams. See Dean C.

Jessee, The Personal Writings of Joseph Smith (Salt Lake City: Deseret Book, 1984), 3-8; Milton V.

Backman, Joseph Smith's First Vision (Salt Lake City: Bookcraft, 1971), Appendix A; cf. Dean C. Jessee, ed., "The

Early Accounts of Joseph Smith's First Vision," BYUS 9 (1969): 280.

53. Apocalypse of Abraham 23:9—11, in OTP 1:700.

54. *JD* 1:133.