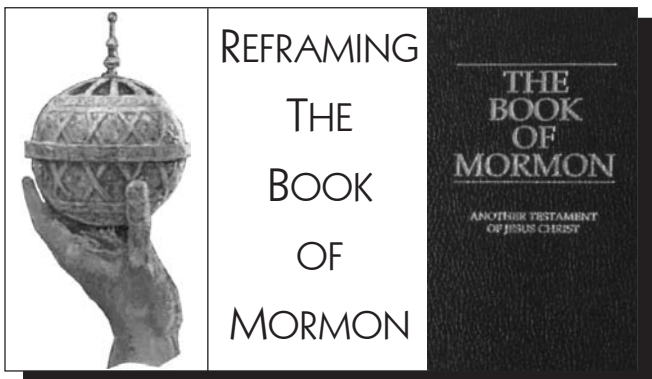


Are faith and a commitment to scientific rigor incompatible? What are some of the keys to successfully negotiating a peaceful coexistence between the two with regard to the Book of Mormon?

NOW WHAT?

By Trent D. Stephens

THE BOOK OF MORMON PURPORTS TO PRESENT A history of three major groups of people who migrated to the Americas from the Middle East. The first group, the Jaredites, apparently annihilated itself. The second group split into the Nephites and Lamanites. The third group, the Mulekites, merged with the Nephites. Shortly after his mission



in the Middle East, the resurrected Jesus Christ appeared to descendants of those people. As a result of Christ's teachings, the people became united into one group. Eventually a division again occurred, and a group referred to as Lamanites (unbelievers) split from those referred to as Nephites (believers). Ultimately, the Lamanites destroyed the Nephites and remained as the only representatives of Middle Eastern colonization in the New World.

In contrast to this account, data from numerous molecular population genetic studies suggest that the ancestors of extant Native Americans came from Siberia. No genetic evidence specifically supports the hypothesis that Native Americans descended from Middle Eastern populations. Furthermore, there is little reason to assume that additional data will reverse the current conclusions. In light of these data and conclusions,



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which challenge the keystone of our faith, many Latter-day Saints and other interested people may ask, "Now what? How do we deal with this new information?" Some have referred to this quandary as a "Galileo Event."¹

The nature of a sound scientific hypothesis is that it can be easily tested by observation or experimentation and that such tests can invalidate the hypothesis. A good scientific hypothesis relevant to the topic at hand might state that all living Native Americans descended from Middle Eastern populations. Such a hypothesis could be tested by comparing genetic markers in Native American populations to markers from Middle Eastern populations. Such a test has never actually been rigorously conducted because such a scientific hypothesis has never been advanced. Rather, an alternative hypothesis has been advanced. That hypothesis is that all living Native Americans descended from Asian populations. The test of that hypothesis, comparing genetic markers from extant Native American populations to those of extant Asian populations, has been repeated many times and supports the stated hypothesis. The most parsimonious conclusion resulting from the test of that hypothesis is that alternative, competing hypotheses, such as one proposing a Middle Eastern origin of Native Americans, are rejected by the data.

Now what? What is one to do with these results, which cast doubt on the authenticity of *The Book of Mormon*? The implications may be numerous. Most of them, not being based on the formulation of testable hypotheses, fall outside the realm of scientific investigation. In light of the *Book of Mormon* story, people might react to the data concerning Native American origins in four different ways:

- One—The data refute the historic authenticity of the *Book of Mormon*. Therefore, belief in the book is unfounded and should be abandoned.
- Two—The data may be ignored. In spite of the data, people may continue to believe that the *Book of Mormon* is true and that all pre-Columbian Native Americans were descended from people of Middle Eastern descent.
- Three—People may take a wait-and-see attitude. Future data may exonerate their belief that the *Book of Mormon* is true and that all pre-Columbian Native Americans were descended from Middle Eastern populations.
- Four. The *Book of Mormon* story is still true. However,

the data refute the notion that all pre-Columbian Native Americans were descended from people of Middle Eastern descent. Middle Eastern colonization in the Americas may have been very small compared to the remainder of the population, and, as a result of two major bottleneck events, no genetic evidence of a Middle Eastern origin is present in the extant population, nor is such evidence likely to be forthcoming.

None of those four postures constitute a scientific hypothesis: none of them can be tested by experimentation or observation. Rather, because the implications are beyond the scope of physical science, they fall into the realm of metaphysics. Metaphysical debates are of the nature to continue, without satisfactory conclusion, for centuries or even millennia. The debate resulting from the apparent conflict between the Book of Mormon story and the genetic data is likely to be one such contest.

REJECTING THE AUTHENTICITY of the Book of Mormon because its story is not supported by scientific evidence may be the most practical and rational choice. Similar conclusions have been drawn for biblical issues such as the lack of evidence that a large number of Israelites ever lived in Egypt or spent an extended amount of time on the Sinai Peninsula. Furthermore, no scientific and little historical evidence exist to support the existence of an actual person known as Jesus Christ. The trend in modern society is to reject all religious stories as myth. Indeed, had the Book of Mormon story been verified by scientific data, such verification would have placed the Book of Mormon in a class by itself relative to other religious texts.

On the other hand, holding to the notion that all Native Americans were descended from only Middle Eastern populations, and rejecting the scientific data, is the least practical and most irrational choice. The bulk of the “creationist” movement is based upon just such an approach. Such a concept doesn’t allow one to reinterpret Book of Mormon or Biblical texts in light of scientific data. Rejection of scientific evidence while holding to traditional interpretations of scripture tends to place one into the realm of religious fanaticism. Such fanaticism stoned Stephen, silenced Galileo, fueled the Inquisition, and founded creationism.

The third choice, a wait-and-see attitude, is probably not bad advice in any controversy. However, those who choose such an approach should expect that they eventually may need to capitulate. With the significant number of studies that have already been conducted concerning the genetic profiles of extant Native American populations, it does not seem likely that additional studies of this kind will present new data that differ significantly from that already accumulated.

The last reaction, not to reject the Book of Mormon, but to modify our interpretations of it in light of scientific data, seems a reasonable compromise for anyone who attempts to espouse both science and Mormon theology. This is the same compromise that may be and has been extended to the biblical account of the creation and Israelite history.

For example, shortly after his family arrived in the “land of promise,” Lehi observed,

We have obtained a land of promise, a land which is choice above all other lands; a land which the Lord God hath covenanted with me should be a land for the inheritance of my seed. Yea, the Lord hath covenanted this land unto me, and to my children forever, and also all those who shall be led out of other countries by the hand of the Lord. Wherefore, I, Lehi, prophesy according to the workings of the Spirit which is in me, that there shall none come into this land save they shall be brought by the hand of the Lord (2 Ne. 1: 5–6).

According to the hemispheric model of Book of Mormon geography, “this land” referred to the entire Western Hemisphere. While the broader prophecy may refer to the entire Western Hemisphere, it is unlikely that Lehi, the voice of that prophecy, had any real concept of the vastness of the area of which he spoke. Not until more than three hundred years later did Lehi’s descendants “discover” the land of Zarahemla, populated by a large number of people (Omni 13–14). Furthermore, more than one hundred years after that, scouting parties were still becoming lost in the wilderness separating various regions inhabited by Lehi’s descendants (cf. Mosiah 8: 7–8).

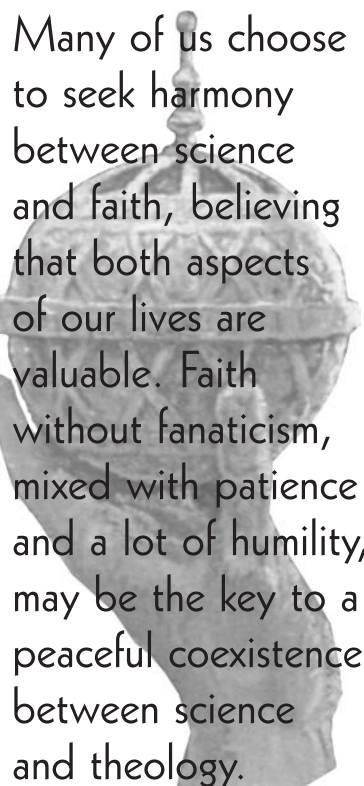
One might argue that if Lehi were a prophet, he would know about American geography. Some have argued, likewise, that if Joseph Smith were a prophet, he would know about the Asian origin of Native Americans. Such arguments propose that a prophet is omniscient, filled with a knowledge of everything. This is apparently many people’s concept of a prophet. However, such was certainly not the case for the prophet Jonah, who naïvely believed he could escape by ship from God’s calling (Jon. 1:3). Likewise the account in Exodus is clear that the great prophet Moses was not all-knowing but learned a little at a time what God wanted him to know and teach to Israel (cf. Ex. 3: 11–14).

This concept of the omniscient nature of prophets may be one of the greatest contributors to the gulf between science and religion, and has led to the death of many prophets.

Is not this the carpenter, the son of Mary, the brother of James, and of Joses, and of Judah, and Simon? And are not his sisters here with us? And they were offended at him. But Jesus said unto them, A prophet is not without honour, but in his own country, and among his own kin, and in his own house (Mark 6: 3–4).

Assuming there is a God, why does God give us what appears to be misinformation? Why do the Bible and other scriptures say that “God created the heaven and the earth” (Gen. 1: 1) when there is no scientific evidence that the earth formed by anything other than natural processes? Why does the Bible say that “the people of the children of Israel are more and mightier than we [the Egyptians]” (Ex. 1: 9) when there is no scientific or historic evidence that the Israelites were ever even in Egypt in large numbers? Why do we read in the Book of Mormon that Lehi and his family arrived in the “promised land” when there is no scientific or historic evidence that Israelite descen-

dants were ever in the New World before Columbus? Why do the scriptures insist that “God so loved the world, that he gave his only begotten Son, that whosoever believeth in him should not perish, but have everlasting life” when there is no scientific and little historic evidence that Christ ever lived?² These questions are the crux of the long-standing conflict between science and religion.



Many of us choose to seek harmony between science and faith, believing that both aspects of our lives are valuable. Faith without fanaticism, mixed with patience and a lot of humility, may be the key to a peaceful coexistence between science and theology.

The simplest answer is that all those religious stories are fables and myths, originating in the human mind and disconnected from reality. There is no scientific support for them because they are not true, they are not real, or they are the product of the human imagination. The opposite extreme is that these stories, as we understand them by tradition, are the only reality and that God has masked the truth to test our faith. Some people are comfortable with one extreme, and some with the other. Many of us, however, find ourselves somewhere in

between. While espousing the processes of science, we are not willing to reject religion.

IN taking such a position, we may recognize the limitations of both science and religion. For example, if we accept as a premise that a historical person named Lehi actually stood somewhere in the Americas when he said, “I, Lehi, prophesy according to the workings of the Spirit which is in me . . .” (2 Ne. 1: 5–6), we can examine the possibility of losing or confusing the facts of his existence and prophecy more than 2,500 years later.

First we may examine the scientific facts. If we had been present when Lehi spoke, we could have actually seen him. We would have had first-hand, eyewitness evidence. Within seconds to minutes, however, that form of evidence is gone. If no one saw Lehi, does it negate his existence? No, the absence of such data cannot refute his existence; it can only fail to support it. If within hours to days we could reach the spot where Lehi made his statement and had a bloodhound that had been sensitized to Lehi’s scent, we could present indirect evidence that he had been there. Within days, however, such a scent would be gone. Fingerprints at the scene would also

be gone within days. It is irrational to believe that because no such physical evidence exists, Lehi could not have been there. We clearly understand the limitations of physical evidence.

People are less often familiar with physical evidence that has a longer half-life. For example, what if Lehi had built a house on the site where he had made his prophetic statement? The material from which the house was built, the environment in which it was built, and subsequent use of the house or building materials can all affect the longevity of such evidence. In archaeology, there are many well-known cases in which every trace of a dwelling is gone after one to two hundred years of disuse. Lack of physical evidence does not establish that no such house existed. It only indicates that its existence cannot be confirmed.

Genetic evidence of Lehi’s presence follows the same logic. If Lehi had no children at or near the site of his prophecy, no genetic evidence would exist that he was ever there. If he had children and those children had all died without issue, again, no evidence of his presence would exist. If his family was extremely small compared to the surrounding population, say one per million, the probability would be extremely small of ever finding any genetic evidence of his presence.

This problem is confounded by the fact that at least two major bottleneck events occurred after Lehi is purported to have arrived in the promised land. First, according to the Book of Mormon account, in about AD 421, a large portion of his descendants were destroyed in a series of great battles. We have no idea how many survived. Second, in the sixteenth century, 90 percent of the pre-Columbian population died from conquest and disease. We have only some idea how the populations before and after that bottleneck may have differed.³ Although some pre-Columbian burial sites have been sampled, we have little information concerning regional genetic diversity before the sixteenth century. Obviously, if there were no other surrounding population and Lehi’s descendants proliferated, genetic evidence of his existence could persist for thousands of years. However, even in that case, the problem is somewhat like that in the bloodhound example. If we had no genetic markers that could be specifically linked to Lehi, how would we know his descendants when we found them?

The function of science in dealing with these issues is to draw rational conclusions that have a reasonable probability of being accurate. For example, with a number of large studies completed that show the same genetic markers in extant Native American populations as in extant Asian populations, it is logical to conclude a relationship between those two populations. However, it is not rational, and beyond the scope of the scientific data, to extend such conclusions to state that the data preclude the possibility that any other populations ever existed in the Americas. As Francis Bacon stated, “They are ill discoverers that think there is no land when they can see nothing but sea.”⁴

Second, we may examine Lehi’s religious experience. In order for a revelation to come from God to humans through a

prophet, many transitions often may occur. First, God either must appear to the prophet and give him a message, send a messenger (angel) to deliver the message, or send the message to the prophet's mind by revelation or inspiration. Such information transfer is not as straightforward as might appear (cf. D&C 9). The next step is for the prophet to write down the revelation, or tell the revelation to someone else, who then writes it down. The latter process may extend through generations and centuries. No matter how the revelation is transferred to readable form, at least one human mind must intervene. The human mind is wonderful and complex but far from perfect. Many exercises have been devised that show how seeing is not always believing. In the case of a prophet, the vision may be difficult to understand and explain (cf. the revelations in Ezekiel, Isaiah, and Revelations).

Once the revelation has been recorded, translations and editorial changes over long periods of time may have profound effects on the text and its meaning. The text is then read, and another mind must interpret that text into concepts related to the revelation. That interpretation is not performed in a vacuum. It is based, rather, on the person's prior beliefs and assumptions. For example, when they read Lehi saying "this land," many people raised in the Church immediately picture North, South, and Central America. The simple fact that we are a society used to looking at maps affects our thinking.

As an exercise, we can follow the term "this land" through the process just described. When God revealed "this land" to Lehi, was there any interpretation in Lehi's mind? What did he think of when the concept of this land was introduced to him through "the workings of the Spirit which is in me?" Was he thinking of North, South, Central America? Lehi had probably never seen a map of any kind, let alone one showing the Western Hemisphere. Furthermore, as Lehi's language was Hebrew, the term "this land" was clearly not given him in that precise form, if the idea came in the form of words at all. Next, Lehi apparently did not record this revelation; it was recorded by Nephi, presumably in reformed Egyptian. Then, when Joseph Smith translated the writings, he apparently did not just read them and give the English equivalent (cf. D&C 9); rather, the translation may have come to him more in the form of concepts, which process itself has been the topic of much discussion. Now, when we pick up a new edition of that translation, how certain are we that what God intended by "this land," as given by the Spirit to Lehi, is what we understand as "this land?" Should such an understanding keep us from accepting scientific evidence that does not agree with that understanding?

In the final analysis, acceptance of The Book of Mormon is founded on the challenge of Moroni:

And when ye shall receive these things, I would exhort you that ye would ask God, the Eternal Father, in the name of Christ, if these things are not true; and if ye shall ask with a sincere heart, with real intent, having faith in Christ, he will manifest the truth of it unto you, by the power of the Holy Ghost. And by the

power of the Holy Ghost ye may know the truth of all things. (Moroni 10: 4–5)

Faith remains the principal principle of religion (cf. Heb. 11). The Book of Mormon also discusses why data "proving" the authenticity of The Book of Mormon should not be expected:

Yea, there are many who do say: If thou wilt show unto us a sign from heaven, then we shall know of a surety; then we shall believe. Now I ask, is this faith? Behold, I say unto you, Nay; for if a man knoweth a thing he hath no cause to believe, for he knoweth it. And now, how much more cursed is he that knoweth the will of God and doeth it not, than he that only believeth, or only hath cause to believe, and falleth into transgression?" (Alma 32: 17–19)

As new scientific discoveries continue to challenge theology, one can choose to abandon religion, believing only that which can be proven by science, or one can ignore science and cling to traditional religious beliefs. On the other hand, many of us choose to seek harmony between science and faith, believing that both aspects of our lives are valuable. Faith without fanaticism, mixed with patience and a lot of humility, may be the key to a peaceful coexistence between science and theology, including Mormon theology. ☺

NOTES

1. I have made the comment that I do believe a "Galileo Event" is occurring today. I believe the Galileo Event is the shift from a hemispheric understanding of Book of Mormon lands to one that views it through the lens of a much smaller geographical setting and population. My comment was in response to Brent Lee Metcalfe's definition: "A Galileo Event occurs when the cognitive dissonance between empirical evidence and a theological tenet is so severe that a religion will abandon the tenet, acquiescing to the empirical data." (See Brent Lee Metcalfe, "Reinventing Lamanite Identity," this issue of SUNSTONE, page 25, footnote 39.)

Consider the situation with Galileo and compare it with the present shift in understanding Book of Mormon lands:

A. Former understanding—the geocentric universe:

- Most people in Galileo's time believed the earth to be the center of the universe. They believed the Bible required such a belief. There have been a number of papers indicating that the geocentric universe was not actually universally accepted before Galileo.
- Most Latter-day Saints today believe the Book of Mormon to be hemispheric. They believe the Book of Mormon requires such a belief. Several papers indicate that the hemispheric model has not always been universally accepted in the Church.

B. Data forces a change in both situations.

C. Effect on faith from the new understanding:

- The Galileo Event did not disprove the authenticity of the Bible.
- This new Galileo Event does not disprove the authenticity of the Book of Mormon.

2. A good source for discussion of this question is the website of the Jesus Seminar, <<http://religion.rutgers.edu/jseminar>>. Two books arguing that there is little actual evidence for much that is claimed about Jesus are: Robert W. Funk, et al., *The Once and Future Jesus* (Santa Rosa, CA: Polebridge Press, 2000) and John D. Crossan, *The Historical Jesus: The Life of a Mediterranean Jewish Peasant* (New York: Harper Collins, 1992). For counter-arguments, try: Gary R. Habermas, *The Historical Jesus: Ancient Evidence for the Light of Christ* (Joplin, MO: College Press Publishing Co., 1996) and Michael J. Wilkins and James P. Moreland, *Jesus Under Fire* (Grand Rapids, MI: Zondervan Press, 1996).

3. A good source for understanding the post-Columbian native population crash is: Tzvetan Todorov, *The Conquest of America: The Question of the Other*, trans. by Richard Howard (New York: Harper & Row, 1984).

4. John M. Robertson, ed., *Philosophical Works of Francis Bacon* (London: George Routledge and Sons, 1905), 94.