

# SCIENCE AND MORMONISM: THE HISTORIOGRAPHIC LANDSCAPE

THE SEARCH FOR HARMONY:  
ESSAYS ON SCIENCE AND MORMONISM  
edited by Gene A. Sessions and Craig J. Oberg  
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Reviewed by Erich Robert Paul



*A useful reminder that Galileo's ecclesiastical confrontation could have Mormon echoes if a neoliteralist LDS creation-science prevails.*

**I**N *The Search for Harmony: Essays on Science and Mormonism*, Weber State University professors Gene A. Sessions (history) and Craig J. Oberg (biology) have collected eighteen Mormon scholars' previously published essays on science and Mormonism, reflections of various interpretations taken throughout history on both science and religion.

## THE WARFARE METAPHOR OF SCIENCE AND RELIGION

**T**O put the Mormon experience in perspective, it is helpful to review the larger history of the debate. A century ago, discussions of science and religion were almost universally couched in terms of an adversarial metaphor that not only presumed the incompatibility of science with religion,

*The late ERICH ROBERT PAUL, who died this fall, was a professor of the history of science and of computer science at Dickinson College in Carlisle, Pennsylvania. He was the author of three books on cosmology, including one on science and Mormonism.*

but advanced the notion that the two had waged open warfare. The classic treatments of this view are John W. Draper's *History of the Conflict Between Religion and Science* (1875) and Andrew D. White's *History of the Warfare of Science with Theology* (1896).

Draper, the immigrant son of a Methodist minister, saw the Roman Catholic Church as the archvillain of enlightenment. The Vatican's persecution of scientists, he argued, was designed to smash any ideas, particularly scientific and philosophic, that differed with the received view of the church. Draper's parochial study is emotionally charged and deliberately designed to anger Catholics. In contrast, Draper argued, Protestants, with their emphasis on private scriptural interpretation, provided a receptive climate for the emergence of modern science in the sixteenth and seventeenth centuries. Whereas Catholic authoritarianism constantly thwarted science, Protestant pluralism mitigated any tendency toward undue control.

Although sharing Draper's opinion generally, White, president and founder of Cornell University, argued that theology, not religion, had become dogmatic, and that this dogma-

tism regarded the Bible as a scientific text—a mistake that caused an inevitable conflict between science and religion. The title words *conflict* and *warfare* emphasized a military battle between science and religion, with science on the side of enlightenment and religion, or at least theology, as oppressing freedom of thought and human agency.

Draper's and White's interpretative styles and historiographic orientations have cast a long shadow on virtually all subsequent discussions of science and religion. In the last several decades, however, scholars have agreed that the sciences have not inherently been at odds with the religious climate of any period before or since Draper and White. Their warfare thesis was an outgrowth of nineteenth-century thinking, and assumed an erroneous set of intellectual categories, epistemologies, and concepts of nature that have caused the issue to be cast in terms of conflict and tension. Recent scholarship views both science and religion as social enterprises in which disputes arose because individuals possessed different cultural, professional, and political goals, not because there was an inherent antagonism between science and religion.<sup>1</sup>

## OTHER MODELS FOR SCIENCE AND RELIGION

**O**NCE the historical misconceptions and intellectual biases of the warfare thesis are exposed, we still face the challenge of understanding the relationship between science and religion. In contrast to the warfare thesis, the following models have provided various, and sometimes useful, ways to understand the science-religion relationship.

Some argue that there is no inherent conflict between science and religion, that the two are fundamentally different and have nothing of substance to contribute to one another. Religion is concerned with God, values, and ultimates where the emphasis is prescriptive and extraphysical; science is nontheistic, nonteleological, nonethical, nonmetaphysical, descriptive, and terrestrial. This view has found few advocates within historic Mormonism, primarily because Mormon theology deeply interweaves the physical and the spiritual, and the existence of the one necessarily subsumes the existence of the other.

Alternatively, some have suggested that science and religion are fundamentally in harmony because science reflects the *works* of God and religion the *words* of God. This view goes back at least to St. Thomas Aquinas in

the thirteenth century and became prominent within the Mormon tradition. It holds that "true" science and revealed religion can never conflict, as both are manifestations of a providential universe. This "natural theology" view achieved wide currency, particularly from the seventeenth century through the nineteenth. For example, English theologian William Paley, in *Natural Theology*, relied on a variety of natural phenomena to establish the existence of God. Using the argument-by-"design" metaphor, Paley argued that if one were to find a watch on the ground he or she would be impressed with its mechanism and its laws of operation, and would rightly infer the existence of its architect. Drawing upon human, animal, and insect anatomy and physiology, he argued that nature provides overwhelming evidence of intricate mechanisms. Since mechanisms imply a designer, and since there is uniformity and order in nature, there must be a single (divine) intelligence at work. By the time natural theology had run its course in the middle of the nineteenth century, emphasis had shifted from observing God in nature to observing nature and declaring its motions as the will of God.

Others argue that science must always remain tentative because its very nature does not allow a completely true and undiminished understanding of ultimate reality, and therefore can never, in some ultimate sense, conflict with religion. In this view, science is in a constant state of flux—always in search of ultimate understanding, but never reaching it. Still, while many concede that science can never grasp a thorough understanding of ultimates, some claim that science is slowly converging toward some objective reality. This "convergent realism" view really begs the issue: by definition, the alleged convergence must always remain beyond our grasp.

Others avoid casting the science and religion issue in terms of compatibility or conflict, but focus on religious authority versus intellectual freedom. They find the debate over relative epistemological status largely irrelevant. They focus on who (or what) has the right to speak on doctrinal matters. For instance, within Mormonism, the Church's prophet occasionally makes doctrinally binding statements. Consequently, these pronouncements preclude additional discussion (i.e., freedom) of alternative possibilities. In this view, regarding topics upon which both religion and science ostensibly have insight, it is religion that asserts greater interpretative value.

But the question is, of course, can religion

properly deal with issues that are more accurately thought of in scientific terms? For example, one interpretation of the first two chapters of Genesis is that it provides an account of the physical creation of the world. If the account is to be taken literally—a "day" is a twenty-four hour day—then there are significant differences between this religious rendering and the scientific account of cosmology. The Old Testament is also replete with references that, if taken literally, would have us believe that the earth, orbited by the sun, is in the center of the universe. Modern science rejected this cosmology with Copernicus in the sixteenth century (a position sustained, of course, by the heliocentric references in the books of Alma and Helaman). Does one really want to sustain a literal interpretation of these scriptures? Or, using the words of seventeenth-century Cardinal Cesare Baronius, "The intention of the Holy Ghost is to teach us how one goes to heaven, and not how the heavens go."

The much deeper issue is not whether a religion can live peacefully with various scientific views; it is fundamentally with hermeneutics—the methodological principles of (biblical) interpretation. Historically, most Christian religions have understood their theologies through a literal hermeneutic. Despite the transforming events of the seventeenth century, with the challenges of a new epistemic derived from Darwinian evolution, it wasn't until the last third of the nineteenth century that Christianity largely separated into two op-

posing camps: an accommodationist acceptance of evolutionary thinking and an increasingly fundamentalist, literal, and theologically conservative rejection of science.<sup>2</sup> Although delayed until the twentieth century, this split also occurred within Mormonism.

#### THE MORMON TAKE ON SCIENCE AND RELIGION

THROUGHOUT most of its history, Mormonism has aggressively promoted the view that, properly understood, science positively complements revealed religion; that the claims of the warfare thesis are untenable because true science and revealed religion, both having God as their author, could never conflict. This view was not unique among Mormons, and indeed was affirmed during the seventeenth century by all the participants in the Galileo affair. True science was meant to be divinely inspired, and, of course, for Mormons revealed religion was Mormonism. Thus, in the nineteenth century Mormon leaders such as Parley P. and Orson Pratt, Brigham Young, Orson Hyde, Lorenzo Snow, and John Taylor, and in the twentieth century, Mormon presidents David O. McKay, Spencer W. Kimball, and even the early Ezra Taft Benson all reflected the historic position of Church leadership relative to science. LDS scholars Nels and Frederick Pack during the early years of this century, Hugh Nibley and Henry Eyring in the later decades, as well as virtually every



Mormon scientist to the present, have also strongly affirmed a positive scientism that complements their understanding of Mormonism. During the first half of the twentieth century, this positive scientism was deeply promoted by scientist-authorities and general authorities B. H. Roberts, James E. Talmage, John A. Widtsoe, Joseph F. Merrill, and Richard R. Lyman, who urged a hermeneutic that advocated the inclusion of science and scholarship into Mormon theology and religion generally. Their nonreactionary, positive scientism dominated Church thinking from Joseph Smith through the years of their tenure as Church authorities. However, as Talmage, Widtsoe, Merrill, and Lyman received some of the finest science education available, they came to realize that an *inspired* science was more fiction than reality. During the administrations of Joseph F. Smith and Heber J. Grant, the Church issued clarifications of its view on evolution. Their pronouncements were broadly conceived so that the Church's view on evolution could never be construed as either a thoroughgoing acceptance or a blanket condemnation.

But beginning in the 1920s, though not fully developing until the mid-twentieth century, an attitude arose that caused some to feel threatened by the ideas of Roberts, Talmage, Widtsoe, and Merrill of adopting as legitimate an approach that gives some credence to modern historical and scientific scholarship. During the last several decades, the emergence of a neoliteralist view has threatened a return to a severely restrictive Mormon hermeneutic.

Beginning with the publication of Apostle Joseph Fielding Smith's *Man: His Origin and Destiny* in 1954, and supported by Smith's son-in-law Elder Bruce R. McConkie's *Mormon Doctrine* in 1958, Mormon theology characterized modern science generally and biological studies in particular as deceptive, and replaced a positive scientism with funda-

mentalist Christian creation-science. Even so, they continued to support the view that there is no inherent conflict between *revealed* science and inspired religion; the only deception was with contemporary science, particularly evolution and related sciences. Thus, supported by a regiment of "science-bashing" works written by a "second tier of Mormons," Smith, McConkie, and others waged open warfare on science and on Mormonism's historic interpretation of the God-nature duality. To some degree, Smith's and McConkie's interpretative explorations of science and Mormonism reflect the ill-conceived and dangerous warfare views of Draper and White in the nineteenth century, but from the religious side of the issue. Their campaigns also illustrate that the differences are due more to personalities than to core differences between religion and science.

Fortunately, a number of encouraging signs have appeared within the last several years, suggesting the existence of an institutional retreat from this "Mormon retreat from science." The *Ensign's* "I Have a Question" section featured the query: "Do we know how the earth's history as indicated from fossils fits with the earth's history as the scriptures present it?"<sup>3</sup> The editors asked Morris Petersen, BYU professor of geology and a stake president, to provide an answer. Petersen advanced the "old-earth" view that the earth is billions of years old. His answer vehemently rejected the claims of both the six-day and the 6,000-year interpretations of the Creation advanced by Mormon neoliteralist advocates. Although Petersen's answer does not constitute Mormon doctrine, the fact that an article sympathetic to—or at least indirectly supportive of—evolution (the word is never mentioned, however) appeared in the Church's official magazine suggests that some powerful forces in the institutional Church understand fully the inherent dangers of neoliteralist thinking.

More recently, the "Evolution" entry in the

*Encyclopedia of Mormonism* clearly stated that there is no inherent need for science and religion, which are philosophically different, to engage in conflict, that the Church has not taken an official position regarding evolution, and that science is a worthwhile and productive activity.<sup>4</sup> Also, in both the "Science and Religion" and "Science and Scientists" entries, the historic Mormon view of a positive scientism is reaffirmed.<sup>5</sup> While the *Encyclopedia* does not represent a binding and official declaration, its articles were nevertheless approved by Apostles Neal A. Maxwell and Dallin H. Oaks.

#### THE SEARCH FOR HARMONY

It is that recent Mormon adoption of the warfare metaphor for science and religion that makes *The Search for Harmony* an important book. Although the editors do not treat the Church's rich historical view of a positive scientism in their introductory essay, for which one must turn elsewhere,<sup>6</sup> they briefly explore an issue they have entitled "The Mormon Retreat from Science." Focusing on developments during the last half of the twentieth century, Sessions and Oberg explain why Mormonism has adopted "in league with fundamentalist Christians . . . the whole cloth of 'creation science,' which they define as 'the notion that [mainline] geologists, biologists, and others have participated in a gross misinterpretation of the geologic and fossil record and in so doing subvert the truth of a divine creation.'"<sup>7</sup>

The seventeen essays provide Mormon case studies of the historical tension between science and religion. Eleven of the essays are reprinted from *Dialogue: A Journal of Mormon Thought*, and one each from the *Journal of Mormon History*, the *Ensign*, Utah State University Press, Signature Books, and the Church Educational System; one essay is published for the first time. Let me briefly comment on these essays *seriatim*.

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*Joseph F. Smith's and Heber J. Grant's pronouncements were broadly conceived so that the Church's view on evolution could never be construed as either a thoroughgoing acceptance or a blanket condemnation.*

Mathematician David Bailey's important essay "Scientific Foundations of Mormon Theology" and BYU scientists James Farmer, William Bradshaw, and F. Brent Johnson's "The New Biology and Mormon Theology" argue that both the physical and biological sciences have something essential and necessary to offer to the theology and religion of Mormonism.<sup>8</sup> In "The 1911 Evolution Controversy at Brigham Young University," Gary James Bergera chronicles the clash between a literal hermeneutic promoted by various institutional forces at BYU, and several Mormon scholars who had been recruited to boost the intellectual climate at the Provo university.<sup>9</sup> Not only did these newly appointed professors find the religious climate eventually irreconcilable with their science, but in the wake of their departure a legacy of mistrust and academic abuse lingered for decades. Dennis Rowley's "Inner Dialogue: James Talmage's Choice of Science As a Career, 1876-84" provides a fresh glimpse—when there was less of this doctrinal posturing—of the early years of one of Mormonism's most influential scientist-theologians.<sup>10</sup>

The deeply conflicting positions of Church leaders on the Creation are superbly treated in "A Turbulent Spectrum: Mormon Reactions to the Darwinist Legacy" by Mormon philosopher Richard Sherlock, and in "The B. H. Roberts/Joseph Fielding Smith/James E. Talmage Affair" by Sherlock and Jeffrey E. Keller.<sup>11</sup> A discussion of the positive role of science in the thinking of Mormonism's most celebrated scientists is considered in Edward Kimball's "Harvey Fletcher and Henry Eyring: Men of Faith and Science"<sup>12</sup> and in Steven Heath's "Agreeing to Disagree: Henry Eyring and Joseph Fielding Smith."<sup>13</sup>

BYU geneticist Duane Jeffery, in his now classic essay "Seers, Savants, and Evolution: The Uncomfortable Interface," begins by comparing various Mormon theological views to their corresponding positions in science and nineteenth-century Christian theology.<sup>14</sup> Noting the doctrinaire and strident effects of Smith's anti-science views as opposed to those of Roberts, Talmage, Merrill, and many others, Jeffery concludes: "The concept that God works through universal law, that he is obedient to law, is fundamental. This gives Mormonism a basis for

synthesis of the two camps that exists in few if any other Western religions."<sup>15</sup>

In the epilogue, the authors reprinted William Lee Stokes's well-known 1957 "An Official Position," in which then Church president David O. McKay reaffirmed (1) that the Church had not taken an official position on the subject of organic evolution and (2) that Joseph Fielding Smith's *Man: His Origin and Destiny* is not endorsed by the Church.<sup>16</sup>

Mormon zoologist Eldon Gardner argues, in "Organic Evolution and the Bible," for a reconciliation of science and religion by suggesting that they represent two complementary but non-overlapping areas of human understanding. Thus he sees that "the Bible is a valuable and important document with primarily religious significance, that it is not a scientific treatise, nor a complete and detailed history."<sup>17</sup> This view is supported by Morris Petersen's "Fossils and the Scriptures." While Jeffery, Gardner, and Petersen approach the science-religion discussion primarily from the science side, Keith Norman's "Adam's Navel" explores the issue from the religious side by providing a non-Mormon and theologically normative interpretation of Genesis that suggests that the various creation accounts were never intended as a lesson in science.<sup>18</sup> Rather, the creation stories were meant to address issues dealing with monotheism and polytheism, as well as the spiritual nature of humankind. A complementary argument is also presented in "Astrophysics and Mormonism: Parallel Paths to Truth" by Mormon astronomer Grant Athay.<sup>19</sup>

In "Science: A Part of or Apart from Mormonism?," Mormon chemist Richard Pearson Smith again argues that science and Mormonism can uniquely contribute to both camps' understanding of the world.<sup>20</sup> Yet he notes, with considerable fear, that the rise of the neoliteralist attitude of Smith and McConkie may continue a polarizing effect, to the detriment of the Church.

**I**N the final, previously unpublished essay, "Eternal Progression: The Higher Destiny," Weber State University English professor L. Mikel Vause argues that "seen in the light of the doctrine of eternal progression, the theology of Mormonism and the theory of evolution are not mutually exclu-

sive but could well blend together to form a harmony of faith and reason." This argument had already been noted by Roberts, Widsøe, Merrill, and many others before and since. Unfortunately, it is a position that is philosophically insecure and confuses science as truth with science as a search for truth. The history of that confusion leads to a completely untenable "natural theology," the history of which is strewn with the dead bones of discarded scientific theories.<sup>21</sup>

With only one exception (Vause's), the editors have reprinted uniformly excellent and useful essays. Their concluding "Review Essay" briefly discusses some of the recent literature dealing with science and Mormonism.<sup>22</sup> It is not clear, however, why some important reference materials dealing with their topic were not included in their bibliographic review.<sup>23</sup> The most glaring omission is Richard F. Haglund Jr.'s "Religion and Science: A Symbiosis."<sup>24</sup> Sensitive to the historical issues discussed above, Haglund's broadly conceived essay draws upon the much larger literature in science and religion generally in order to urge Mormons to re-think the assumptions upon which science stands, as well as to explore the possibilities of a mutually productive dialogue between science and Mormonism that transcends the conflict inherent in a literal hermeneutic.

**F**ROM the brief survey of this essay, it is clear that the history of science and the historic relationship between science and religion suggests two caveats. First, when religion is held to be divinely revealed, as in Mormonism, and when science has held a uniquely centered position, as throughout the history of the Mormon movement, the epistemological contributions by religion and science must be carefully—and critically—balanced. On some issues, religion is doctrinally binding, but on others religion is a matter of policy and convention. Science, which is never doctrinally binding and whose theories must always remain tentative, can still contribute with singular authority on numerous matters dealing with our physical world. It would be naive to think that no issues in science and religion will ever again result in some tension. It would be equally foolish, however, to polarize science and religion to a degree that neither can contribute to their mutual well-

being and to the larger cultural and social setting of Mormonism.

Second, the need for intellectual freedom should be preserved so that both science and religion can benefit and be beneficial. With an eye on the lesson of the Galileo affair, when a scriptural literalism advanced by the Roman church led to one of the greatest tragedies in religious history, we need to recognize that the scriptural approach advocated by neoliteralist Mormon creation-science will contribute to dynamics that, if unchecked, almost certainly will result in a similar religious travesty of monumental proportions.<sup>25</sup> The pursuit of a rigid hermeneutic could easily seduce some to feel justified in squashing the ideas of those with a differently focused perspective—for no other reason, it would seem, than defending a dogmatic adherence to a scriptural literalism. Sessions and Oberg's anthology provides us with a useful reminder of the catastrophic effects of a literal hermeneutic in the interpretation of scripture in matters dealing ostensibly with scientific issues. Informed by such reminders, we may be able to avoid repeating the mistakes of Galileo and the Roman church. ☐

## NOTES

1. See David C. Lindberg and Ronald L. Numbers, eds., *God and Nature: Historical Essays on the Encounter between Christianity and Science* (Berkeley: University of California Press, 1986); David C. Lindberg and Ronald L. Numbers, "Beyond War and Peace: A Reappraisal of the Encounter of Christianity and Science," *Church History* 55 (1986): 338–54; and Ronald L. Numbers, "Science and Religion," *OSIRIS: A Research Journal Devoted to the History of Science and Its Cultural Influences* 1 (1985): 59–80.

2. See James R. Moore, *The PostDarwinian Controversies: A Study of the Protestant Struggle to Come to Terms with Darwin in Great Britain and America, 1870–1900* (New York: Cambridge University Press, 1979); Neal C. Gillespie, *Charles Darwin and the Problem of Creation* (Chicago: University of Chicago Press, 1979); John Durant, ed., *Darwinism and Divinity: Essays on Evolution and Religious Belief* (New York: Oxford University Press, 1985); and Peter J. Bowler, *NonDarwinian Revolution: Reinterpreting a Historical Myth* (Baltimore: Johns Hopkins University Press, 1988).

3. "I Have a Question," *Ensign*, September 1987: 28–29. And recently in the "I Have a Question" section appeared the question: "Does Abraham's usage of 'time' lead us to understand that the Creation was not confined to six 24-hour days as we know them?" The answer, given by a Church Educational System institute instructor, notes that not only is the term day "used in scripture to indicate the period wherein the labor of God is performed," but also "that each 'day' may not even be of the same length." Thomas R. Valletta, "I Have a Question," *Ensign*, January 1994: 53–54.

4. William E. Evenson, "Evolution," in *Encyclopedia of Mormonism*, vol. 2 (New York: Macmillan Publishing Co., 1992), 478.

5. Erich Robert Paul, "Science and Religion," *Encyclopedia of Mormonism*, vol. 3, 1270–272; and Robert L. Miller, "Science and Scientists," *Encyclopedia of Mormonism*, vol. 3, 1272–275.

6. See Erich Robert Paul, *Science, Religion, and Mormon Cosmology* (Urbana: University of Illinois Press, 1992).

7. For a thoroughly masterful treatment of the creation-science phenomenon, see Ronald L. Numbers, *The Creationists: The Evolution of Scientific Creationism* (New York: Alfred A. Knopf, 1992).

8. David Bailey, "Scientific Foundations of Mormon Theology," *Dialogue: A Journal of Mormon Thought* 21 (summer 1988): 61–80; and James Farmer, William Bradshaw, and F. Brent Johnson, "The Biology and Mormon Theology," *Dialogue* 12

(winter 1979): 71–75. Also see Charles L. Boyd, "Forever Tentative," *Dialogue* 22 (winter 1989): 142–51; David Bailey, "Reply to 'Forever Tentative,'" *Dialogue* 22 (winter 1989): 152–55; and Erich Robert Paul, "Science: 'Forever Tentative?'" *Dialogue* 24 (summer 1991): 119–23.

9. Adapted from Gary James Bergera and Ronald L. Priddis, *Brigham Young University: A House of Faith* (Salt Lake City: Signature Books, 1985), 134–48. Also see Richard Sherlock, "Campus in Crisis—BYU, 1911," *SUNSTONE* (Jan./Feb. 1979): 11–16.

10. Dennis Rowley, "Inner Dialogue: James Talmage's Choice of Science As a Career, 1876–84," *Dialogue* 17 (summer 1984): 112–30.

11. Richard Sherlock, "A Turbulent Spectrum: Mormon Reactions to the Darwinist Legacy," *Journal of Mormon History* 5 (1978): 33–59; and *Dialogue* 13 (fall 1980): 63–78; and Richard Sherlock and Jeffrey E. Keller, "The B.H. Roberts/Joseph Fielding Smith/James E. Talmage Affair," *Dialogue* 15 (spring 1982): 79–98. The circumstances that gave rise to the conflict between Roberts and Talmage, on the one hand, and Smith, on the other, was the completion of Roberts's magnum opus, *The Truth, The Way, The Life: An Elementary Treatise on Theology* (1928), in which Roberts argued for the existence of pre-Adamites. This manuscript was not published during Roberts's lifetime, because he was unwilling to compromise his views with the objections of Smith. In the summer of 1994, however, Roberts's book was simultaneously published by Smith Research Associates under the editorship of Stan Larson, and by Brigham Young University Studies with Jack Welch as editor. Bill Roberts, *The Way, The Truth, The Life: An Elementary Treatise on Theology: The Masterwork of B. H. Roberts*, ed. Stan Larson (San Francisco: Smith Research Associates, 1994); and *The Truth, The Way, The Life: An Elementary Treatise on Theology* (1927–28), ed. John W. Welch (Provo, UT: BYU Studies, 1994).

12. Edward L. Kimball, "Harvey Fletcher and Henry Eyring: Men of Faith and Science," *Dialogue* 15 (autumn 1982): 74–86.

13. Originally published as "The Reconciliation of Faith and Science: Henry Eyring's Achievement," *Dialogue* 15 (autumn 1982): 87–99.

14. Duane Jeffery, "Seers, Savants, and Evolution: The Uncomfortable Interface," *Dialogue* 8 (autumn/winter 1973): 41–75. This essay generated a variety of responses, which in turn were addressed in Jeffery's rejoinder, "Seers, Savants, and

Evolution: A Continuing Dialogue," *Dialogue* 9 (autumn 1974): 21–38.

15. Duane Jeffery, "Seers, Savants, and Evolution: The Uncomfortable Interface," *Dialogue* 8 (autumn/winter 1973): 41–75. This essay generated a variety of responses, which in turn were addressed in Jeffery's rejoinder, "Seers, Savants, and Evolution: A Continuing Dialogue," *Dialogue* 9 (autumn 1974): 21–38.

16. William Lee Stokes, "An Official Position," *Dialogue* 12 (winter 1979): 90–92.

17. Adapted from Eldon J. Gardner, *Organic Evolution and the Bible* (Logan, Utah: Utah State University Press, 1960).

18. Keith E. Norman, "Adam's Navel," *Dialogue* 21 (summer 1988): 81–97.

19. Adapted from Grant Athay, *Astrophysics and Mormonism: Parallel Paths to Truth, Commissioner's Lecture Series* (Salt Lake City: Church Educational System, 1973).

20. Richard Pearson Smith, "Science: A Part of or Apart from Mormonism," *Dialogue* 19 (spring 1986): 106–22.

21. Paul, *Science, Religion, and Mormon Cosmology*, 1–36.

22. For a much more thorough examination of the science-Mormonism literature, see Richard F. Haglund Jr. and Erich Robert Paul, "Resources for the Study of Science, Technology and Mormon Culture," in *Mormon Americana: A Guide to Sources and Special Collections in the United States*, ed. David J. Whitaker, (Provo, Utah: BYU Press, 1994), vol. 1, chap. 31; and my "Bibliographic Essay," in *Science, Religion, and Mormon Cosmology*, 237–57.

23. The critical bibliographic reviews that one must consult to become conversant in the numerous issues dealing with the theme of science and religion are: John Hedley Brooke, *Science and Religion: Some Historical Perspectives* (New York: Cambridge University Press, 1991), 348–403; Moore, *The PostDarwinian Controversies*, 402–58; and Lindberg and Numbers, *God and Nature*, 473–84.

24. Richard F. Haglund Jr., "Religion and Science: A Symbiosis," *Dialogue* 8 (autumn/winter 1974): 23–40.

25. Two of the best sources on the "Galileo Affair" are Jerome J. Langford, *Galileo, Science and the Church* (Ann Arbor: University of Michigan Press, 1971); and Richard J. Blackwell, *Galileo, Bellarmine, and the Bible* (Notre Dame: University of Notre Dame Press, 1991).



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—C. WADE BENTLEY

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"From a copy of [the] original diary" of this secretary to Brigham Young, John Taylor, and Wilford Woodruff.

**Thomas Bullock Nauvoo Journal.** Ed. Greg R. Knight. Grandin Book, ltd. ed. (500), hb, 101 p., \$39.95.

This scribe to the Church, Nauvoo, Joseph Smith, and others "reveals the broader story of Nauvoo" and the temple from August 1845 to July 1846.

## CHRISTIAN LIVING

**Brother Brigham Challenges the Saints.** By Hugh Nibley. F.A.R.M.S., hb, 541 p., \$23.95.

This thirteenth of Nibley's collected works pre-

sents and interprets "a priceless collection of the leader's counsel . . . astonishingly relevant today."

**Brother Joseph: Lessons from the Life of the Prophet.** By Kay W. Briggs. Bookcraft, hb, 288 p., \$14.95.

True short stories are categorized "for quick reference or general reading, . . . ideal for [Church] lessons, family home evenings and Sacrament meeting talks."

**The Radiant Life.** By Truman G. Madsen. Bookcraft, hb, 136 p., \$10.95.

"Shows how greater gospel understanding can raise a person above the average to a level of higher devotion."

## FICTION

**Altmann's Tongue: Stories and a Novella.** By Brian Evenson. Alfred A. Knopf, hb, 239 p., \$22.00.

In "a devout Mormon, an unequivocal believer, a bishop in the Church . . . we have a young American writer and his fierce debut."

**The Modern Magi: A Christmas Fable.** By Carol Lynn Pearson. Gold Leaf Press, pb, 38 p., \$3.50.

"A contemporary story of faith and charity that will appeal to all ages . . . the perfect read-aloud story."

**The Ships of Earth (Homecoming Series, volume 3).** By Orson Scott Card. TOR Books: hb, 380 p., \$22.95; pb, 384 p., \$5.99.

The family group, led by Nafai, comes to the shores of a fertile land where they must prepare ships for an interstellar journey.

**The Work and the Glory (volume 5): A Season of Joy.** By Gerald N. Lund. Bookcraft, hb, 575 p., \$17.95.

The latest in this "popular, award-winning series" follows the fictional Steed family and the Church from 1839 to 1841.

## HISTORY

**Black Saints in a White Church: Contemporary African-American Mormons.** By Jessie L. Embry. Signature Books, pb, 270 p., \$18.95.

Oral histories and surveys inform "a valuable history of the experiences of black Americans in the Latter-day Saint Church."

**The Carthage Tragedy: The Martyrdom of Joseph Smith.** By Reed H. Blake and Spencer H. Blake. Cedar Fort, pb, 147 p., \$9.95.

This hour-by-hour "major revision of a 1973 book [has] some changing of material, as well as a presentation of new material."

**Contemporary Mormonism: Social Science Perspectives.** Ed. Marie Cornwall, Tim B. Heaton, and Lawrence

A. Young. University of Illinois Press, hb, 367 p., \$32.50.

"Integrates the best scholarship among contemporary Mormon social scientists and historians" on the Church's rapid growth and a wide range of issues.

**I Walked to Zion: True Stories of Young Pioneers on the Mormon Trail.** By Susan Arrington Madsen. Deseret Book, hb, 182 p., \$12.95.

Pictures and historical data accompany "the accounts of thirty young pioneers, all but one told in their own words."

**An Illustrated History of Graceland College.** By Barbara J. Higdon. Herald House, pb, 48 p., \$6.50.

"Personalities, events, and places" from the life of this RLDS institution, a century old in 1995.

**Inventing Mormonism: Tradition and the Historical Record.** By H. Michael Marquardt and Wesley P. Walters. Signature Books, hb, 244 p., \$28.95.

Uses contemporary documents and background material with recollections to create "a new and sometimes startling picture" of Joseph Smith Jr.

**The Martyrdom Remembered: A One-Hundred-Fifty-Year Perspective on the Assassination of Joseph Smith.** By Davis Bitton. Aspen Books, hb, 124 p., \$16.95.

Reactions and recollections, personal and public, on the question, "What, then was the meaning of those deaths?"

**Memories of Militants and Mormon Colonists in Mexico.** Comp. Harold W. Taylor. Shumway Family History Services, hb, 468 p., \$50.00.

"A comprehensive overview of the unique lifestyle of the rugged pioneer colonists," including Pancho Villa's "life and impact on the people of Mexico."

**Shot in the Heart.** By Mikal Gilmore. Doubleday, hb, 403 p., \$24.95.

The brother of a famous Utah murderer (Gary Gilmore) "goes] back into the family history and, finally, crack[s] open its god-awful secrets."

**The Weber River Basin: Grass Roots Democracy.** By Richard W. Sadler and Richard C. Roberts. Utah State University Press, hb, 300 p., \$26.95.

"How the Weber contributed to the settlement and development of a sizeable portion of the Watsch Front."

**When Angels Intervene to Save the Children.** By Hartt and Judene Wixom. Cedar Fort, pb, 198 p., \$10.95.

Parents of one of the hostages (many LDS) tell the "completely revised and updated" Cokeville, Wy., bombing story; basis for the movie.