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From the Editor

I am excited about possibilities. Hamlet's line "There are more things in heaven and earth, Horatio, than are dreamt of in your philosophy" (Hamlet 1.5.167–68) invites us to look for answers: What more is there? How do we find it? Probing the possibilities keeps our minds open to helpful prospects. If you thrive on such enrichments, I'm confident that you will enjoy the ideas presented in this issue of *BYU Studies Quarterly*. Let me point out just a few.

The illuminating article by David Grandy about the latest scientific understandings of the behavior of light offers insightful analogical realizations about the characteristics of the light of Christ. This article is worth the price of this journal. It offers a spectrum of surprising possibilities in approaching the phenomena of light, ultimately shedding new light on D&C 88:6–7. Grandy speaks of the "elemental graciousness whereby vision is accomplished" as "light drops out of sight to give us sight" (30). He adds that light, like the horizon, is "at the interface of two worlds," the infinite and the finite (33). In the workings of such thoughts, many perplexities dissolve into a "larger pattern of possibility," like the sunrise and sunset anticipating "multiple yet-to-be realized possibilities" while capturing "all realized possibilities" simultaneously (34, 35).

Professor Barry Bickmore teams up with Grandy to offer a possible framework for understanding science as "a powerful, but limited, path to understanding" (60). With years of teaching experience, they describe seven rules that operate in the reports or "stories" that scientists tell in giving useful explanations of observations about the natural world. As distinctions are drawn in this essay between these rules and

religion, one wonders if the idea of storytelling proffers possibilities for both science and religion. Both, after all, are fundamentally interested in embracing and recounting endless possibilities of realities yet to be encountered, and both stand eager to tell of those experiences.

Chad Richardson and Shon Hopkin offer an answer to the question, what two nations and what time should be identified with the Book of Mormon prophecy that "when the two nations shall run together the testimony of the two nations shall run together also" (2 Ne. 29:8)? While there may be other possible answers, they propose that this confluence occurred between 1816 and 1830 with the forthcoming of the Book of Mormon at the time of the emergence of Latin American nations filled with descendants of Sephardic Jews.

Disrupting the idealized scene of the pioneer trek as a completely harmonious experience—"but with joy wend your way"—David Clark introduces other possibilities of occasional violence and disruptive behavior among the Mormon pioneers. He offers several possible reasons for these outbursts under the stressful conditions on the trail, and he looks at possible reasons why such incidents were considerably less severe than among gold rushers and land grabbers headed for California and Oregon. Understanding the beliefs that united the pioneers increases appreciation for the difficulties, disappointments, and stress they suffered. Significantly, although trail deaths did occur among the Mormon pioneers, as is demonstrated by the data Melvin Bashore, Dennis Tolley, and their team have collected, few deaths were due to violence.

Joseph Spencer's essay about Professor Ralph Hancock's important book, *The Responsibility of Reason,* also opens up further possibilities. As Spencer summarizes, Hancock argues that it is necessary to recognize that the world of concrete practices bears within itself a set of organizing forms that are governed by "the good," such that the material world bears a unified moral topography. While finding Hancock's argument plausible, Spencer proposes that it may not be the only possibility. He offers instead a revitalization of the idea of a pluralistic and inconsistent cosmos, using the modern French philosopher Badiou as a model. Leaving much still to be explored, Spencer concludes: "To understand what Mormonism has to say in the history of thought, it will be necessary to decide how to conceive of a materialism that nonetheless affirms (whether within consistent or inconsistent realms) the existence of a moral order" (73).

I am happy to open this issue to your inspection and introspection. May these prospects offer you more than you have dreamed.

The scriptures are filled with images of light, the most memorable being Christ's simple declaration, "I am the light of the world." Ivan Aivazovsky, *Jesus Walks on Water,* 1888 (public domain).

Physical Light and the Light of Christ

David A. Grandy

A religiously minded science teacher once told me that the special theory of relativity could not be correct because, if true, it would keep God from moving or communicating at superluminal speeds. Even though I knew little about special relativity at the time, I sensed that the theory was less limiting than my teacher believed. After all, for photons moving at light speed, "there is no passage of time," as Hermann Bondi has put it, owing to complete time dilation.[1] Wouldn't the disappearance of time open up alternative travel and communication possibilities for God?

This question becomes particularly compelling when we consider scriptures that suggest God's capacity to transcend time and his deep association with light.[2] Passages from all four standard works portray light as a principle of truth, intelligence, creation, and divinity. And while science, with its predilection for naturalistic explanations, would seem to have little to say about matters of religious import, it has in the last century chastened us with a fresh awareness of light. I say "chastened" because before 1900, physicists assumed that light could be understood according to Isaac Newton's laws of mechanics. Newton did not accord

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1. Hermann Bondi, *Relativity and Common Sense: A New Approach to Einstein* (Garden City, N.Y.: Anchor Books, 1964), 108. Note that when Bondi talks about light, he is referring to the entire electromagnetic spectrum (all the way from radio waves to gamma waves), not just the small portion of the spectrum to which the human eye is sensitive. This also is my definition of light.

2. See, for example, Doctrine and Covenants 38:1–2 and 130:7 for passages connoting God's transtemporal existence.

David A. Grandy

I first took an interest in physical light as a young missionary. Passages from all four standard works, but particularly the Doctrine and Covenants, led me to wonder whether the light of everyday experience might be understood as an expression of God's love. Later, while serving in the military, I became interested in modern physics, and this interest impelled me to take night-school classes at Harvard University and then to pursue a PhD in history and philosophy of science at Indiana University. After landing a job at BYU–Hawaii and teaching for several years, I decided to study light more rigorously, an endeavor that bridged into my work at BYU–Provo and that resulted in the publication of several articles and one book (*The Speed of Light: Constancy and Cosmos*). My sense is that, like all things sacred, light is inexhaustibly deep.

special status to light, believing it to consist of particles whose behavior mimicked the action of particles composing material bodies. Celebrating Newton's prism experiments not long after his death, James Thomson wrote:

> E'en Light itself, which every thing displays,
> Shone undiscover'd, till his brighter mind
> Untwisted all the shining robe of day;
> And, from the whitening undistinguish'd blaze,
> Collecting every ray into his kind,
> To the charm'd eye educed the gorgeous train
> Of parent colours.[3]

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3. James Thomson, "To the Memory of Sir Isaac Newton," in *The Poetical Works of James Thomson* (Boston: Houghton, Mifflin, 1863), 48–49.

In this poem, Thomson finds Newton's mind brighter than light itself. But no scientifically minded poet would offer this kind of tribute today. Light has proved too puzzling. As Ralph Baierlein puts it, "Light, it seems, is always ready with another surprise,"[4] and for the last century the surprises have repeatedly upended older understandings of light. What is more, these surprises have, among scientists and nonscientists alike, triggered a great deal of philosophical and theological commentary. In this article, I argue that physical light—the light that science investigates and the agency by which we see the world—resonates metaphysical overtones, some of which may be considered theological or spiritual. To be specific, I propose that special relativity's portrayal of light breaks the frame of mechanistic thought and thereby allows for a reconsideration of the reverential view of light that prevailed in the West prior to the early modern era. Implicit in this older view is the thought that physical light is in some ways indistinguishable from spiritual light, or the light of Christ.

This is not to suggest that Albert Einstein, the architect of special relativity, would agree with what follows or even take an interest in my argument. His god, he stated, was Baruch Spinoza's, a god intimately allied with nature but oblivious to human affairs.[5] All the same, no scientific theory pronounces for or against God; nor can a theory be said to categorically sanction a particular definition of God. All theories, however, may be mined for spiritual insight, just as literature, art, and music may be so mined. Here I offer an analogy for bridging from one domain to the other—from religion to science—to prompt further discussion, without insisting that my ideas are conclusive. If light teaches us anything, it is that there is always another surprise around the corner.

Additionally, science enjoins intellectual modesty, both as a guiding principle and as historical fact. What compels scientific assent in one era may strike the next generation of researchers as misguided and unrealistic. But this is to put the matter too pessimistically, for scientists do not simply cycle through hypotheses ever hoping to find the right one. They learn from their errors, revising hypotheses as they grow to see nature in new ways. Special relativity is one such new way, and my submission is that it offers a fresh perspective on how God interacts with his creation.

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4. Ralph Baierlein, *Newton to Einstein: The Trail of Light* (Cambridge, UK: Cambridge University Press, 2001), 95.

5. Banesh Hoffmann, *Albert Einstein: Creator and Rebel* (New York: Viking, 1972), 94–95, 195.

First, however, let me make a general statement about methodology and motivation—what assumptions inform my attempt to interrelate scientific and religious understandings of light and why I feel the question of light is religiously important.

Guiding Assumptions and Significance

One reviewer of an early draft of this article rightly stated that "the word 'light' is often used in a symbolic fashion in the scriptures." I certainly agree, but it strikes me that behind its symbolic meanings, light is something in and of itself. At least that is the intuition that motivates this article, and if this intuition is correct, it would seem that the study of light should be spiritually rewarding, particularly in view of the profound significance that scripture ascribes to light. For example: "The glory of God is intelligence, or, in other words, light and truth" (D&C 93:36).

Now, should we just let the word "light" here function as a symbol for glory, intelligence, and truth, or may we also wonder about light itself as we know it, or fail to know it, in familiar, everyday settings? My inclination is to wonder, and to do that, I turn to science, which is the only endeavor I know of that rigorously studies physical light. I do not believe that science knows everything there is to know about light, but if one is prompted by the scriptures to study light, there is no other place to start.

The danger here, according to many observers, is that those who aim for this kind of interdisciplinary understanding of light will take religious or poetic liberties with science while working up outlooks that most scientists then regard as idiosyncratic at best and simply false at worst. To be sure, such an approach is always a concern, but to the degree that it lives from the premise that science is a world apart from other human endeavors, it is, in my view, overstated and misleading. Drawing inspiration from science (an incorrect understanding of science, as it turned out), the logical positivists attempted to ground all human knowledge to absolutely secure foundations—that is, to propositions that no sane person could contest—but this attempt, by their own admission, failed. What they came to realize is that "there is no escape from metaphysics,"[6] no escape from philosophical, religious, and poetic predispositions, even as we engage in the careful analytical work of science.

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6. E. A. Burtt, *The Metaphysical Foundations of Modern Physical Science* (Amherst, N.Y.: Humanity Books, 1999), 227.

Not only that, but pure science attracts thinkers by reason of its grand speculations, which is not a knock against it but merely an acknowledgement of its vast explanatory reach. As Levi R. Bryant, echoing Bruno Latour and Adam Miller, explains:

> Science is properly understood as an exploration of the transcendent. . . . Science guides our prodigious voyage through the realm of what is remote. Science introduces us to black holes at the center of each galaxy, subatomic particles beneath our threshold of perception, the appearance of things within the wavelengths of infrared and ultraviolet light, and the perceptual universe of the great white shark where the world is sensed in terms of electro-magnetic signatures. Science brings us before the genuinely foreign.[7]

Although theology and the philosophy of religion are also remote and speculative, pure religion ultimately directs or redirects our gaze back home—back to family, neighbors, coworkers, widows and orphans, and those who suffer. So I think the old characterization of science as a non-speculative, facts-only, ground-level endeavor leaves a lot unsaid, as does the criticism that religion is otherworldly and overly concerned with unseen and possibly nonexistent agencies. The two domains of thought interpenetrate more freely than we generally recognize, I believe. This article is an attempt to step beyond the merely symbolic understanding of light to see if "the glory of God" might be found in a familiar setting, at least provisionally.

"Easter in ordinary," as one scholar has put it, suggesting that the sacred may be inscribed in the commonplace.[8] This, of course, is not just a religious sensibility but a poetic one as well. Where others see discontinuity between poetry, religion, and science, I tend to see continuity, which tendency makes me partial to Ralph Waldo Emerson's assertion that "never did any science originate, but by poetic perception."[9] Toward the end of this article I introduce some poetic images, both to advance the argument and to mark the truth of Einstein's claim that "physical [scientific] concepts are free creations of the human mind, and are not, however

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7. Levi R. Bryant, foreword to Adam S. Miller, *Speculative Grace: Bruno Latour and Object-Oriented Theology* (New York: Fordham University Press, 2013), xvii–xviii.

8. Nicholas Lash, *Easter in Ordinary: Reflections on Human Experience and the Knowledge of God* (Charlottesville: University of Virginia Press, 1988).

9. Ralph Waldo Emerson, *The Complete Works of Ralph Waldo Emerson*, 12 vols. (Cambridge, Mass.: Riverside Press, 1903–4), 8:365.

it may seem, uniquely determined by the external world."[10] To be sure, the events of nature spark our wonder, but we are the ones who creatively connect the dots, and there is no uniquely right way to do so, just as there is no uniquely right way to constellate the stars.

With that as prolegomena, we now consider some historical background.

The Lull before the Storm

In 1900, Lord Kelvin, a prominent British physicist, stated that just two problems marred the "beauty and clearness of the dynamical theory [of heat and light]."[11] Both problems reached back to Thomas Young's 1801 observation of wave interference fringes on a backdrop after he let light pass through a two-slitted barrier. The alternating dark and bright fringes (see fig. 1) indicated that, contra Newton, light consists of waves, not particles. Letting the behavior of sound and water waves guide his thinking, Young insisted that when light waves meet in phase (crest meeting crest), bright fringes or bands appear, signifying constructive interference; when they meet out of phase (crest meeting trough), dark fringes appear, signifying destructive interference. The resulting pattern, the array of alternating bands, seriously challenged Newton's model of light, for it would seem that if light consisted of particles, we would see on the backdrop something very different—just two longish regions of light opposite the slits.

By 1830, the entire physics community had migrated over to the wave theory of light. But when physicists thought of light waves, they were obliged to think of something else as well—a material medium through which those waves propagated. Unlike particles, which were imagined to be self-existing entities, waves could not be imagined to be anything

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10. Albert Einstein and Leopold Infeld, *The Evolution of Physics: The Growth of Ideas from Early Concepts to Relativity and Quanta* (New York: Simon and Schuster, 1961), 31. Elsewhere Einstein alluded to the creative aspect of science by stating that while scientific theories may end up looking as if they were powered into existence by nothing more than logical deliberation, they in fact reach back to "child-like thought"—at least his special theory of relativity originated from such. He then concluded, "Discovery is not a work of logical thought, even if the final product is bound in logical form." Cited in John D. Norton, "Chasing the Light: Einstein's Most Famous Thought Experiment," in *Thought Experiments in Philosophy, Science, and the Arts,* ed. Mélanie Frappier, Letitia Meynell, and James Robert Brown (New York: Routledge, 2013), 130.

11. Lord Kelvin, *Baltimore Lectures on Molecular Dynamics and the Wave Theory of Light* (London: Cambridge University Press Warehouse, 1904), 486.

light source

double-slit
screen

photoplate

photoplate
(front view)
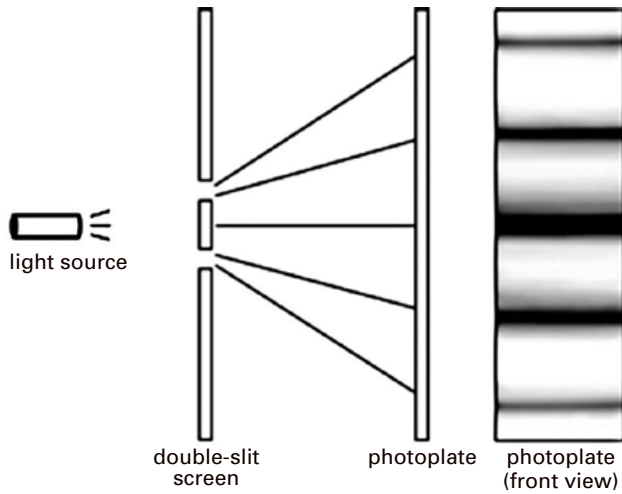
FIGURE 1. Light is directed toward a two-slitted barrier and then blocked by a backdrop, in this case a photoplate or light-sensitive film. If light consists of particles, two particle clusters should show up opposite the slits. Instead an interference pattern registers, signifying light's wave nature.

more than the wave action of some physical substance. How, after all, could water waves exist without water or sound waves without air? Or light waves without a comparable supporting medium? The trouble was—and this was the first problem Lord Kelvin had in mind—that no such medium had been found, despite much hard theoretical work and careful experimentation.[12] The situation was a bit absurd, or at least difficult to explain. Some have compared it to the incident described in Lewis Carroll's *Alice in Wonderland,* where the grin of the Cheshire cat hangs in the air without the cat.[13]

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12. The hard theoretical work consisted of determining the properties of this presumed medium, the ether. For ether to function as assumed, it had to be (among other things) subtle or ethereal and rigid: subtle so that material bodies could pass through it without being affected by its presence; rigid because only an incredibly rigid substance (calculated to be at least a million times more rigid than steel) could support waves moving at light speed. Merging these and other properties into a single hypothetical substance taxed the ingenuity of many first-rate thinkers. The careful experimentation involved researchers' attempts to physically detect the ether, an endeavor elaborated later in the body of this article.

13. Daniel Kleppner and Robert J. Kolenkow, *An Introduction to Mechanics* (Cambridge, UK: Cambridge University Press, 2010), 450.

Lord Kelvin's second problem concerned the failure of the wave theory of light to correctly predict the emission of blackbody radiation at high frequencies. Max Planck solved this problem in 1900 but only by reintroducing a particle or quantum model of light. This solution, which it seems Planck viewed as merely a stopgap measure,[14] was a harbinger of the even bigger surprise of wave-particle duality.

As for the first problem—that of the missing material medium—this was solved by Einstein in 1905 when he published papers that introduced his special theory of relativity. But to say Einstein "solved" the problem is not to say that he cleared up all the conceptual difficulties relating to light's motion. Along with others, I argue that Einstein's solution—particularly his postulate of light-speed constancy—opens new horizons of thought by challenging the mechanistic metaphysics that characterized science after Galileo, Descartes, and Newton. Of course, special relativity does not address the question of God's existence, and so it cannot be said to decide anything of theological import. Nevertheless, for those inclined to think along a scriptural wavelength while tracking the trajectory of scientific thought, it offers fresh perspectives on the question of how God as a being of light might interact with his creation. At the very least, its helps us realize that Newton's laws of mechanics do not tell the whole story of physical reality. Other factors figure into that story, so that in the coarsely mechanistic fabric of things there is always surprise, the expression of which is often bound up in light.

For Christians, God's command "Let there be light" opened the Creation with its vast expanse of possibility. Whether viewed from a religious or scientific perspective, light still awakes us to new possibility. It is not just the agency that illuminates the present world but also a principle that may be said to intimate realms of being beyond our normal ken. One such realm is implicit in the view of light found in Christian scripture.

A Christian View of Light

In the Gospel of John, Jesus Christ is introduced as the *Logos*; that is, the Word of God by which the cosmos was created and rendered intelligible. It appears that John is responding here, at least in part, to the Greek belief that the universe is a place of reason, beauty, and harmony,

14. Thomas S. Kuhn, *Black-Body Theory and the Quantum Discontinuity, 1894–1912* (Oxford, U.K.: Oxford University Press, 1978).

and he is tracing those qualities instead back to Christ. Striking a note that would appeal to both Jew and Gentile, he states that in Christ the *Logos* "was life; and the life was the light of men" (John 1:4). Christ was "the true Light, which lighteth every man that cometh into the world" (John 1:9). Here light could almost trade places with life, for light is not simply a pleasant addition to reality, a nice extra. Rather, it shines or burns with life-combusting radiance.

The Gospel of John is filled with other images of light, the most memorable being Christ's simple declaration, "I am the light of the world" (John 8:12). For those attuned to biblical echoes, this affirmation reverberates with "Let there be light," the first great creation formula of the book of Genesis. Although God will later create the lights of the heavens (the sun, moon, and stars), he does not, according to Michael Welker, work in darkness and so first calls into existence an ambience of brightness. Welker insists that an understanding of Genesis begins with the realization that "Creation connects diverse processes and domains of life and orders them in such a way that they can be known by human beings and that human beings can enter into communication with God."[15] The circumambient light-realm enables this ordering, integrating activity; it is a matrix that engenders life, understanding, and communion with God.

Not only that, but light as a principle of creation seems to remain eternally operative in the cosmos. The circumambient light-realm timelessly informs what comes thereafter, so that now physical light may be said to participate in the moment of creation. In section 88 of the Doctrine and Covenants, we read:

> This is the light of Christ. As also he is in the sun, and the light of the sun, and the power thereof by which it was made. As also he is in the moon, and . . . the light of the stars, and the power thereof by which they were made. . . . Which light proceedeth forth from the presence of God to fill the immensity of space—The light which is in all things, which giveth life to all things, which is the law by which all things are governed, even the power of God who sitteth upon his throne, who is in the bosom of eternity, who is in the midst of all things. (7–13)

Consistent with other LDS scripture, this passage challenges the spirit-matter dichotomy that informs mainstream modern thought.[16] Most

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15. Michael Welker, "Creation: Big Bang or the World of Seven Days?" *Theology Today* 52, no. 2 (1995): 186.

16. See Doctrine and Covenants 29:34–35; 131:7–8.

contemporary Christians and even many LDS believers, I suspect, do not regard the light of the sun, moon, and stars as the light of Christ and the power by which they were made or created. But long before modern physicists began to probe the mysteries of physical light, Christians found in physical light intimations of God's presence in the world. Augustine of Hippo wrote that the Father had sent forth the Son not as the earth sends forth water but as light sends forth light: "For what is the brightness of light if not light itself? And consequently, it is co-eternal with the light of which it is the light."[17] This brief declaration reflects Augustine's conviction that the Son is coeternal with the Father, and just as light is able to grace the finite world while retaining its aboriginal purity, so the Son descended into a cramped, finite sphere without compromising his Father's unbounded benevolence. Of all the elements of the world, Augustine insisted, light alone never suffers corruption.[18]

The inclination to appreciate light for its propensity to be at once a part of the world and yet apart from it lived on for centuries. Otto von Simson states that throughout the Middle Ages light was regarded as "the most noble of natural phenomena, the least material, the closest approximation to pure form."[19] This belief figured into the development of the Gothic cathedral, which has been described as embodying "an architecture of light."[20] Pointed arches and flying buttresses allowed builders to construct a material edifice that seemed almost to dissolve into ambient light and space. This tendency toward etherealization mirrored a universal property of matter. Sand and ashes, Bonaventure noted, become glass when handled properly, coal gives way to fire, and dull stones become bright when rubbed. In each case, light shines through the dark veil of matter, refining and clarifying it in the process.[21]

Living in the thirteenth century, Robert Grosseteste viewed light as the seed crystal of creation. The universe, he insisted, began when God created a dimensionless point of light containing both form and matter. As the single point expanded, differentiation ensued to produce the

17. Saint Augustine, *The Trinity*, 4:20, trans. Stephen McKenna (Washington, D.C.: Catholic University of America Press, 1963), 165.

18. Augustine, *Letters*, ed. Wilfrid Parsons, vol. 3 (Washington, D.C.: Catholic University of America Press, 1953), 26.

19. Otto von Simson, *The Gothic Cathedral: Origins of Gothic Architecture and the Medieval Concept of Order* (New York: Pantheon Books, 1962), 51.

20. Daniel J. Boorstin, *The Creators: A History of Heroes of the Imagination* (New York: Vintage, 1992), 246.

21. Simson, *Gothic Cathedral,* 51–52.

material multiplicity of the cosmos.[22] The first moment of creation, the moment of first light, hence lives on in all later moments, and this fact expresses itself in the splendor of the physical universe. Given this, light for Grosseteste was "the natural essence outside the soul which most completely imitates the divine nature and links the soul with God."[23]

Dante Alighieri, another late medieval student of light, ends his *Divine Comedy* by paying homage to eternal light. "In its profundity," he writes, "I saw—ingathered and bound by love into one single vol-ume—what, in the universe, seems separate, scattered."[24] So densely packed with reality was this light that a moment's contemplation thereof weighed more heavily on him, and slipped more easily from his memory and understanding, than twenty-five centuries of recorded history. But despite his inability to hold on to the vision, Dante came away knowing that eternal light embraces the miracle of harmonizing the upper and lower worlds. Therein two seemingly incommensurable magnitudes—divine perfection and human imperfection—are brought into relation.

This reverential attitude toward light died out in the early modern period, particularly after Newton seemed to reduce the action of light to mechanistic principles. It revived in the early twentieth century with the development of relativity theory and quantum mechanics, though by then the intellectual landscape had changed so radically that light-related puzzles were more likely to inspire flights of philosophical fancy than acclamations of God's love. Still, at least two Christian theologians have drawn religious inspiration from the new physics and its revela-tions about light. Thomas Torrance and Iain MacKenzie both argue that Einstein's universe—a universe built around the unfailing constancy of the speed of light—restates the unfailing constancy of the love of God toward his creation.[25] Further, light speed constancy preempts any

22. Robert Grosseteste, *On the Six Days of Creation*, trans. C. F. J. Martin (Oxford, UK: Oxford University Press, 1996), 97–101.

23. R. W. Southern, *Robert Grosseteste: The Growth of an English Mind in Medieval Europe*, 2d ed. (Oxford, UK: Clarendon Press, 1992), 218.

24. Dante Alighieri, *Paradiso*, canto 33, lines 85–87, in *The Divine Comedy of Dante Alighieri, A Verse Translation: Paradiso*, trans. Allen Mandelbaum (Berkeley and Los Angeles: University of California Press, 1982), 294.

25. Thomas F. Torrance, "The Theology of Light," *Christian Theology and Scientific Culture, comprising the Theological Lectures at The Queen's University, Belfast, for 1980* (Eugene, Ore.: Wipf and Stock Publishers, 1998), 78–87. Tor-rance proposes that the "reliability and trustworthiness of the universe" may be grasped "through reference to the constancy of light, for it does help us,

suggestion of cosmic favoritism or privilege, a fact which echoes the biblical declaration that "God is no respecter of persons" (Acts 10:34).

In Einstein's universe, no reference frame is privileged, and while this fact implies the relativity of all reference frames, it also points back to a universal constant—the speed of light—that regulates the interaction of those frames. Thus there is a deep coherency to the world that, once understood, gives the lie to the shallow secular view that truth is situational and subjective. "The vision," writes Stanley Jaki in rehearsing Einstein's aspiration, "was that of a cosmic reality, fully coherent, unified, and simple, existing independently of the observer; that is, not relative to him, and yielding its secrets in the measure in which the mathematical formulas, through which it was investigated, embodied unifying power and simplicity."[26]

For Torrance and MacKenzie, the miracle of this deep coherency is that no single part of the vast unity is eclipsed by any other part, or even by the cosmic whole, which they understand to be light integrated. Owing to God's capacity to bestow his elemental love "in the same free, invariant and equable way"[27] on all creation, to let the sun "rise on the evil and on the good" (Matt. 5:45), he remains mindful of the smallest and seemingly most insignificant details (the fall of a sparrow, say), even while attending to the entire universe.

One is reminded here of Galileo's comment that "God and Nature are so employed in the governing of human affairs that they could not apply themselves more thereto if they truly had no other care than only that of mankind." To secure this thought, Galileo notes the action of light: "And this, I think, I am able to make out by a most pertinent and

I believe, to appreciate in a new way the constancy or faithfulness of God" (81). Iain MacKenzie, *The "Obscurism" of Light: A Theological Study into the Nature of Light* (Norwich, UK: Canterbury Press, 1996), 49–61. MacKenzie states: "The constancy of the speed of light irrespective of whether its source is moving or static and without regard to the physical disposition of its observer, whether moving in any direction or static, points to the unqualified constancy of the God who has created all things by that Word made flesh" (60).

26. Stanley Jaki, "The Absolute beneath the Relative: Reflections on Einstein's Theories," in *Einstein and the Humanities,* ed. Dennis P. Ryan (New York: Greenwood Press, 1987), 10. Torrance puts it this way: "The universe is profoundly intricate and mysterious and full of surprises, but far from being arbitrary it manifests everywhere throughout all change and fluctuation an integrity and trustworthiness which are to be associated with the invariant properties of light." Torrance, "Theology of Light," 80.

27. Torrance, "Theology of Light," 85.

most noble example, taken from the operation of the Sun's light, which, . . . in ripening that bunch of grapes, nay, that one single grape, . . . does apply itself so that it could not be more intense, if the sum of all its business had been the maturation of that one grape."[28] God focuses his entire attention on each detail of the world *as if it were the whole world*: this is both the everyday lesson of light, according to Galileo, and an idea growing out of the foundations of modern physics, according to Torrance and MacKenzie.

It is also Dante's idea, at least insofar as it suggests a light-integrated universe whose primordial intrigue is love: "what, in the universe, seems separate, scattered," is in fact "ingathered and bound by love" through the agency of light. The unitary, indivisible action of light brings the seemingly separate and scattered parts of the world into a coherent whole. This is an idea with many variations in modern physics, one of which I now address. Again, my aim is to offer suggestive rather than definitive understandings of light.

Einstein's Light

Now recall that the story of special relativity begins with the discovery that light has a wave nature. The classical and still commonsensical understanding of waves requires a material medium through which waves pass, for it is the medium itself that vibrates and thereby gives birth to light waves. But in the late nineteenth century, physicists sought without success to experimentally detect the medium—the universal ether—which they felt must support the propagation of light waves.

For most researchers the idea of self-existing light waves—light undulating with nothing to support the undulation—was well-nigh unthinkable. But for the young Albert Einstein, the universal ether was an even more problematic notion, and his inclination was to give it up altogether—never mind that its dismissal left physicists floundering for something to grab onto.[29] The problem reached back to Newton's

28. Galileo Galilei, *Dialogue on the Great World Systems,* in the Salusbury translation, revised, annotated, and with an introduction by Giorgio de Santi- llana (Chicago: University of Chicago Press, 1953), 378–79.

29. Martin J. Klein, "Thermodynamics in Einstein's Thought," *Science* 157 (August 4, 1967): 509–16. Also see Albert Einstein, *Relativity: The Special and the General Theory*, trans. Robert W. Lawson (New York: Crown Publishers, 1961). The presentation above is historical and therefore differs from what one generally encounters in physics texts whose expositions routinely begin with a

assertion that inertial (nonaccelerated) motion is indistinguishable from rest. Imagine someone—let's call her Alice—in a railway car moving at a constant speed in a constant direction; that is, moving inertially. As she watches the surrounding countryside glide by, she is absolutely certain that she is moving and the scenery outside her window is stationary. But this she cannot prove, for, according to Newton, no experiment performed in one inertial setting will yield a different result when performed in another. It is possible, therefore, to imagine another person—we'll call him Bob—standing on the ground, looking at the train, and insisting that he is moving while Alice is stationary. We now have two opposing narratives of the same event, and no scientific experiment can break the deadlock. If, for instance, Alice and Bob each toss a ball straight up and then watch to see whether it falls straight down, each will observe the same result. So neither person can win the argument as to who is moving and who is stationary.

Einstein unreservedly embraced this no-win principle because it dissolved the apparent distinction between rest and inertial motion. In the spirit of science, it streamlined our understanding of nature by describing rest as just another instance of inertial motion. And upon thinking through the implications of the proposed ether, Einstein realized that the experimental detection of the ether would undo the no-win principle by turning rest into a distinctive state of motion. As it was imagined, the ether pervaded every nook and cranny of the cosmos. Moreover, it did not move, though, owing to its ethereality, things like rocks and planets moved through it with the greatest of ease. It was, therefore, a universal rest frame, a vast, motionless expanse of extremely subtle matter that, if detected, could serve as a backdrop for determining whether a body was at rest or in inertial motion.

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statement of the two postulates upon which the special theory of relativity is based: (1) the laws of physics are the same (yield the same experimental results) for all inertial observers, a proposition that is sometimes called the "principle of relativity"; and (2) the speed of light in an inertial reference frame is independent of the motion of the light source—is, in effect, the same for all inertial observers. The difficulty with starting out this way in my mind is that it offers no insight into why Einstein developed the highly counterintuitive second postulate. But Einstein explains his arrival at this idea as a matter of getting the speed of light to agree with the first postulate, as evidenced by the title of chapter 7 of the aforementioned book (*Relativity: The Special and General Theory*): "The Apparent Incompatibility of the Law of the Propagation of Light with the Principle of Relativity" (17).
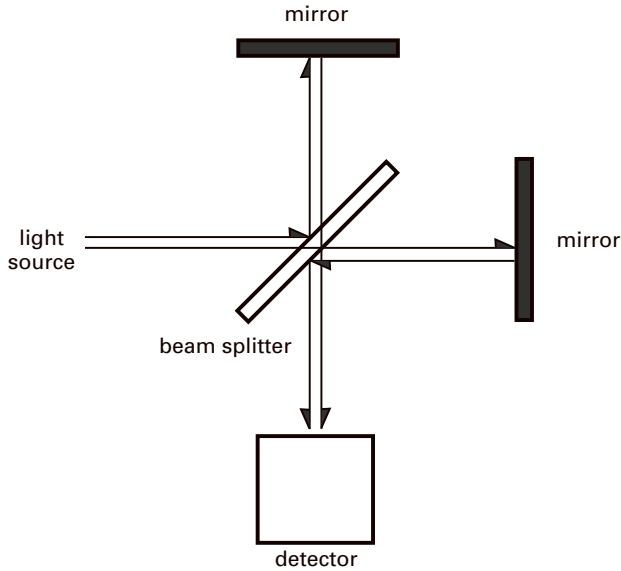
FIGURE 2. With the earth thought to be moving through the universal ether, a light beam is split in half and the two halves travel the same distance along perpendicular paths. After bouncing off the mirrors, the beams reunite at the beam-splitter and travel together to the detector. Theory indicated that one beam would be slowed relative to the other (because of ether wind) and therefore destructive interference would occur as the beams reunite out of phase. The detector, however, revealed no such interference and, by implication, no slowing.

Simply put, if a body were stationary with respect to the motionless ether, it would be at rest in the universal rest frame. That is, it would be at rest relative to the ultimate touchstone of motion, the reference frame coincidental with the universe itself. If, however, a body were moving inertially relative to the ether, it clearly would not be at rest from the vantage point of someone cosituated with the ether. So, in principle, it would seem to be easy to distinguish between rest and inertial motion— once, of course, physicists detected the ether.

To detect the ether, researchers sent two light beams moving along perpendicular paths and compared their speeds (see fig. 2). They surmised that the earth moved through the stationary ether to create an ether wind, just as one can create a wind on a windless day by moving through the air. Physical objects would be unaffected by the wind, owing to the ether's subtlety, but light waves would necessarily be affected by

virtue of their dependence on the ether for their existence. Consequently, if they had to travel into the ether wind, their speed would be retarded, just as a headwind retards the speed of an airplane. If, however, they traveled perpendicular to the wind (crosswind), they would suffer less retardation. One beam, therefore, should move slower than the other, given the ninety-degree difference in orientation. Even if one beam did not move directly into the wind, it would move more directly than the other and therefore undergo a greater slowing effect.

As noted, researchers could find no evidence of ether wind because neither beam was slowed relative to the other. This result challenged the ingenuity of physicists, but only Einstein stepped forward with a startling new idea. In his first paper on special relativity, he wrote, "We shall . . . find in what follows that the velocity of light in our theory plays the role, physically, of an infinitely great velocity."[30] The elaboration of this role is one of modern physics' first intimations that light is not just another phenomenon in the mix of material reality. To be sure, it is in the mix of material reality (as is evident from its everyday ubiquity), but its ontological significance is elemental. It is associated with the world's structure and may be said to express the world's space-time unity. A striking consequence of this unity is light speed constancy.

Imagine driving on a freeway with your cruise control set at 60 miles per hour. This is a constant speed relative to the earth's surface, but it is a variable speed from all other vantage points. Relative to a jackrabbit running alongside the road at 20 miles per hour, you are moving at 40 miles an hour—if the rabbit is running in the same direction. If it is running in the opposite direction, you are moving at a relative speed of 80 miles per hour.

This is the stuff of everyday experience. We all know instinctively that speed is a matter of arithmetic. The effective impact speed of two soccer players, for example, is greater if they are running toward each other than if one overtakes the other from behind. In the first instance, we add the two values; in the second, we subtract one from the other. If the two players are running at the same speed in the same direction, their relative velocity is zero and no impact occurs.

As a young man, Einstein puzzled over light's motion. The wave theory of light indicated that light would move at a constant velocity

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30. Albert Einstein, "On the Electrodynamics of Moving Bodies," in Arthur Miller, *Albert Einstein's Special Theory of Relativity* (Reading, Mass.: Addison-Wesley Publishing, 1981), 401.

relative to the universal ether. This theory, however, would make the speed of light variable from all other vantage points or reference frames, just as a vehicle's constant speed relative to the earth is a variable speed from other vantage points. But if this were true, Einstein reasoned, Isaac Newton's postulate regarding the equivalence of rest and inertial motion would be violated. Newton insisted that the laws of physics are the same for all inertial situations (rest included), and so no experiment can distinguish between a situation where inertial motion is said to be occurring and one that is said to be at rest.

Einstein said he found the prospect of violating Newton's postulate "unbearable."[31] In his mind, the wave motion of light through the ether, which was considered inertial motion, had to be a constant or invariant speed from *every* vantage point. Any observer would, in other words, always measure the speed of light at a given value, irrespective of the speed of the light source and irrespective of one's own speed relative to the light beam. No adding or subtracting of speeds.

This move validated Newton's postulate for all phenomena, optical as well as mechanical, but it led to the cognitive dissonance one experiences when trying to imagine a light beam moving at the same speed for every differently moving observer. To follow N. David Mermin: "How can this be? How can there be a speed c with the property that if something moves with speed c then it must have the speed c in any inertial frame of reference? This fact—known as the *constancy of the speed of light*—is highly counterintuitive. Indeed, 'counterintuitive' is too weak a word. It seems downright impossible."[32]

Mermin goes on to explain that light-speed constancy implies the plasticity of space and time: the space-time values of material bodies are keyed to the finite speed of light so as to ensure that no material body ever reaches that speed. Whereas before (in Newtonian physics) speed was the variable quantity and space and time were unchanging, now with respect to light the roles have been reversed. Light, or the speed of light,

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31. Albert Einstein, "Fundamental Ideas and Methods of the Theory of Relativity, Presented in Their Development," in *The Berlin Years, Writings, 1918–1921,* trans. Alfred Engel, Collected Papers of Albert Einstein, Writings series, 7 vols. (Princeton, N.J.: Princeton University Press, 1987), vol. 7, doc. 31, p. 135.

32. N. David Mermin, *It's About Time: Understanding Einstein's Relativity* (Princeton, N.J.: Princeton University Press, 2005), 25, emphasis in original. Although I indicate this later in the body of the article, it is important to note that the speed of light as a universal constant is realized only in a vacuum. When light encounters material media, it slows down.

is determinative of the speed of other phenomena. This is because light expresses or manifests the metric within which all bodies move. Hans Reichenbach put it this way: "Clocks and yardsticks, the material instruments for measuring space and time, have only a subordinate function. They adjust themselves to the geometry of light and obey all the laws which light furnishes for the comparison of magnitudes. One is reminded of a magnetic needle adjusting itself to the field of magnetic forces, but not choosing its direction independently. Clocks and yardsticks, too, have no independent magnitude; rather, they adjust themselves to the metric field of space, the structure of which manifests itself most clearly in the rays of light."[33]

Material bodies stand under the kinematic sovereignty of light. We live in a "universe of light," says Torrance, because light is a universal ordering principle.[34] Nothing can exceed its immense velocity,[35] and,

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33. Hans Reichenbach, *From Copernicus to Einstein*, trans. Ralph B. Winn (New York: Philosophical Library, 1942), 67–68. Strictly speaking, this statement refers to Einstein's general theory of relativity, which posits that all motion (noninertial as well as inertial) is relative. "Relative" here implies that motion is always a two-body affair (at least) and that it is always possible to insist without fear of experimental contradiction that the other body is moving (or stationary), as in the case of Alice and Bob above. General relativity embraces special relativity as a special case—limited to inertial motion and so-called flat spacetime—and bridges into considerations of space-time curvature. Reichenbach, who took classes from Einstein shortly after the latter had published his general theory, explains how light assumed a greater ontological role in Einstein's thinking as he generalized special relativity: "Whereas in Einstein's original theory [special relativity] light served merely to determine simultaneity, it became clear in the later revision of theory [general relativity] that light may be used for all measurements of time, and even for the measurement of space. One may construct a geometry of light in which light determines the comparison of spatial distances. Thus light comes to serve as the ordering net of physics, which gathers within the meshes of its rays all the events of the world and puts them in a numerical order" (67). I would like to add that to my way of thinking this statement (and others within the body of the article) portrays light as something much more than a nice extra or pleasant addition to reality. The light we witness on an everyday basis specifies a principle of cosmic unity, a primal integrity that permits the emergence of plurality and difference within a single context that never shatters under the weight of multiplicity.

34. Torrance, "Theology of Light," 76.

35. Earlier I observed that science enjoins intellectual modesty: no theory is so secure as to be beyond the reach of disconfirmation. Accordingly, I note that some scientists believe that particles other than photons (gravitons, for example) move at light speed. Also, the speed of light may have changed since

more cogently, the speed of light regulates the behavior of all material bodies in an absolutely impartial way. Scientifically, this impartiality gives us a world, a cosmos, by bringing all within the embrace of a single law or principle that never suffers contravention. Theologically, it may be regarded as an earnest or witness of God's unfailing love and faithfulness toward his creation.

"The speed of light is really not like other speeds," writes Harald Fritzsch; "it is the quantity that has the most fundamental implications for the structure of space and time, or, better yet, of space-time."[36] These implications track back to Einstein's decision to subordinate the space and time values of material objects to the speed of light. As Alan Lightman puts it, "Einstein calculated quantitatively how the ticking rates of clocks and the lengths of measuring sticks in motion with respect to each other must differ so that both sets of instruments measure the same speed for a passing ray of light."[37] As they move at differing rates through space, clocks, yardsticks, telescopes, and all other scientific devices undergo varying degrees of change, all of which ensure they never reach the speed of light. These changes, known as the relativistic effects of time dilation, length contraction, and mass increase, mark an abrupt departure from Newtonian physics. For one thing, they compromise the classical ideal of perfect metrical rigidity. This is not a decisive blow to science, since we can calculate the degree of compromise and work that into our descriptions. It is, however, a reminder that as our instruments measure the material world, they dance—that is, adjust themselves—to the tempo of light. The speed of light is quietly resident in their physicality.

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the big bang. While these hypotheses lack the kind of confirmation that compels widespread assent, they serve to remind us that the arguments developed here with respect to the speed of light are provisional.

36. Harald Fritzsch, *An Equation That Changed the World: Newton, Einstein, and the Theory of Relativity* (Chicago: University of Chicago Press, 1994), 118. A. S. Eddington writes: "The speed of 299,796 kilometres a second which occupies a unique position in every measure-system is commonly referred to as the speed of light. But it is much more than that; it is the speed at which the mass of matter becomes infinite; lengths contract to zero, [and] clocks stand still. Therefore it crops up in all kinds of problems whether light is concerned or not." *The Nature of the Physical World* (London: J. M Dent and Sons, 1964), 64.

37. Alan Lightman, "The Contradictory Genius," *The New York Review of Books* 44 (April 10, 1997): 18.

What is more, our everyday assumptions about reality are staggered upon contemplating the world from the vantage point of the only thing we know that does achieve light speed, which is light itself. From our perspective, light requires about eight minutes to travel from the sun to the earth. But from the perspective of a photon undergoing complete time dilation and therefore forever on the brink of the next instant, no time elapses at all. This is why John Wheeler writes, "Light and influences propagated by light make zero-interval linkages between events near and far."[38] Or, to follow Sidney Perkowitz: "To the best understanding we can muster, . . . the universe is made so that light always travels its own distance of zero, while to us its clock is stopped and its speed is absolutely fixed. These sober conclusions read as if they come out of some fevered fantasy. Light, indeed, is different from anything else we know."[39]

To the same effect, Bernard Haisch asks "how the universe of space and time would appear from the perspective of a beam of light." His response:

> The laws of relativity are clear on this point. If you could ride a beam of light as an observer, all of space [in the direction of the beam's motion] would shrink to a point, and all of time would collapse to an instant. In the reference frame of light, there is no space and time. If we look up at the Andromeda galaxy in the night sky, we see light that from our point of view took 2 million years to traverse that vast distance of space. But to a beam of light radiating from some star in the Andromeda galaxy, the transmission from its point of origin to our eye was instantaneous.[40]

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38. John Archibald Wheeler, *A Journey into Gravity and Spacetime* (New York: Scientific American Library, 1990), 43. Elsewhere, Wheeler and Edwin Taylor explain that in space-time geometry the space-time interval is calculated by subtracting the time factor from the space factors. They then emphatically remark with regard to two events A and B, which are separate from the point of view of everyday experience but which lie along the path traveled by light through space-time, "*The interval vanishes when the time part of the separation between A and B is identical in magnitude to the space part of the separation.*" Further, "*The interval between two events is zero when they can be connected by one light ray.*" *Spacetime Physics* (New York: W. H. Freeman, 1966), 38, emphasis in original.

39. Sidney Perkowitz, *Empire of Light: A History of Discovery in Science and Art* (New York: Henry Holt, 1996), 76.

40. Bernard Haisch, "Brilliant Disguise: Light, Matter, and the Zero-Point Field," *Science and Spirit* 10, no. 3 (1991): 30–31. I have added the bracketed qualifier to guard against the inference that all of space is collapsed to a dimensionless

For light, one moment is indistinguishable from another; or as J. T. Fraser puts it, "All instants in the life of the photon are simultaneous."[41] And, perhaps in some sense, evocative of the moment of creation. Consider that both modern cosmology and Christianity regard light as a first principle or primal reality. In the Judeo-Christian tradition, God calls forth light before initiating any further physical creation. Similarly, the big bang—modern science's creation narrative—is a flash of light within whose expansion physical bodies eventually coalesce.[42] This comparison, however, embodies only a broad similarity. Of greater import is the idea that whatever happens first, in an originative sense, defines what is possible thereafter. Thinking in this vein, Fraser traces the constancy of the speed of light back to the big bang, insisting that this first velocity "has retained a unique and invariant relation to all

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point within light's reference frame. Length (spatial) contraction, according to Einstein, occurs only in one's direction of motion. Even with this caveat in place, however, the idea of spaceless (and timeless) travel in a given direction remains startling. J. Ward Moody, relying on Einstein's notion of relativity of simultaneity (a principle derived from special relativity and one which subverts the Newtonian assumption that events in the universe have the same temporal sequence for all observers, no matter how different their states of motion may be), explains the experience of a hypothetical light-speed traveler vis-à-vis that of an earthbound observer: "Suppose someone on Earth experiences two events at the exact same time. Call the moment these events occur 'now.' Someone moving rapidly past Earth would not see these events taking place at a single specific time. For this traveler, the events, will separate more and more with increasing speed until at the speed of light one event happens instantaneously and the other event is infinitely distant in the future. If this person were traveling at the speed of light when time began, then we can say their existence between those events— which now stretches from the beginning of time to the infinite future—will be played out in what is perceived to be a single instant on Earth." Moody notes that this scenario obtains only as the traveler moves "toward the location of one event and away from the other"—that is, along a given direction of motion. He adds, however, that this qualifier does not "weaken the principle." J. Ward Moody, "Time in Scripture and Science: A Conciliatory Key?" in *Converging Paths to Truth: The Summerhays Lectures on Science and Religion*, ed. Michael D. Rhodes and J. Ward Moody (Salt Lake City: Deseret Book, 2011), 104–5, 120.

41. J. T. Fraser, *The Genesis and Evolution of Time: A Critique of Interpretation in Physics* (Amherst: University of Massachusetts Press, 1982), 39. See also J. T. Fraser, *Time: The Familiar Stranger* (Amherst: University of Massachusetts Press, 1987), 222–42.

42. For more on how light might instantiate or symbolize the interrelationship of God and humanity, see David Grandy and Marc-Charles Ingerson, "The *Perichoresis* of Light," *Theology and Science* 10 (August 2012): 259–80.

other states of motion that have subsequently become possible."[43] Nothing can exceed the speed of light because that primitive flash of light set bounds on all future states of motion, and it did this by being the defining moment of creation. By reason of its ontological primacy, it frames future possibilities.

Viewed this way, the ontological primacy of that first moment lives on light, which may help explain light's unaging nature. After all, as Bondi insists, light "cannot change once it has been produced, owing to the fact that it does not age, and therefore it must remain the same."[44] Brian Greene similarly explains that "light does not get old; a photon that emerged from the big bang is the same age today as it was then. There is no passage of time at light speed."[45]

I hasten to add that this outlook needs to be rounded out by other considerations. Science, in fact, does not permit the claim that we see any of the photons associated with the big bang. Even so, the photons which we do see now (I am using the verb "see" rather loosely here, for reasons to be explained shortly) are not unlike the big bang singularity itself, which is routinely (though not unanimously) described as the event marking the origin—the zero point, as it were—of space and time. If, as Fraser contends, light speed constancy is a throwback to the big bang, it might be that light itself conserves in some tracelike way that moment when, as Stephen Hawking puts it, "all the laws of science" were as yet unrealized owing to the infinitesimal smallness and infinite density of a universe on the brink of inflationary space-time expansion.[46]

Photons, traveling "their own distance of zero" both spatially and temporally, may be said to mark that instant, or the brink of that instant as a zero-dimensional embryonic cosmos exploded into space-time being. This is as much a poetic as a scientific image—tiny photons mirroring the moment of creation—but for some, it inspires religious belief. J. N. Findlay, for instance, writes that "we may see . . . a remarkable naturalization of Eternity in the physical phenomenon of Light. For the photons which bind the universe together, everything, without loss

43. Fraser, *Genesis and Evolution of Time*, 39.

44. Bondi, *Relativity and Common Sense*, 108.

45. Brian Greene, *The Elegant Universe: Superstrings, Hidden Dimensions, and the Quest for the Ultimate Theory* (New York: Vintage Books, 2000), 51.

46. Stephen W. Hawking, *A Brief History of Time: From the Big Bang to Black Holes* (New York: Bantam Books, 1988), 8.

of order, will collapse into something like instantaneousness."[47] John Wheeler pays similar tribute to photons, though in the register of quantum theory. After describing how photons circumvent space and time in scientific experiments, he proposes that each photon constitutes an "elementary act of creation" when it finally strikes the human eye or some other instrument of detection. He then asks, "For a process of creation that can and does operate anywhere, that reveals itself and yet hides itself, what could one have dreamed up out of pure imagination more magic—and fitting—than this?"[48]

There is, in brief, more than meets the eye in our everyday interaction with light.

Light in the World

Implicit in the foregoing is the notion that light travels at its characteristic speed only while moving through a vacuum. When moving through a material substance—glass, water, or air, say—its speed is reduced. Thus light is very much in the mix of material reality, even though material bodies "adjust themselves to the geometry of light and obey all the laws which light furnishes for the comparison of magnitudes."[49] On the one hand, those bodies stand under the kinematic sovereignty of light, taking their cues from light as they move through space and time; on the other, they slow, block, and even extinguish light.

The first part of the foregoing statement describes light as portrayed by Einstein's special theory of relativity: pure and untouched by material bodies. The second describes light as we find it in everyday experience: dimmed and slowed by the materials through which it moves, bouncing off of surfaces, and generally at the mercy of a solid, material world whose reality is thought to subsist primarily in its hardness and opacity. One would scarcely guess from light's acquiescent action in this world that it is a principle that structures and integrates the cosmos.

I propose that despite light's seemingly subordinate role in our material world, the light of Christ is fully operational as a foundational reality in this world, just as described in section 88 of the Doctrine and

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47. J. N. Findlay, "Time and Eternity," *Review of Metaphysics* 32 (September 1978): 11.

48. John A. Wheeler, "Law without Law," in *Quantum Theory and Measurement*, ed. John A. Wheeler and Wojciech Hubert Zurek (Princeton: Princeton University Press, 1983), 189.

49. Reichenbach, *From Copernicus to Einstein*, 67–68.

Covenants. Consider light's elemental graciousness whereby vision is accomplished: light drops out of sight to give us sight. This is a point that reaches back to Plato, who portrayed light not as something seen but as the agency of seeing and therefore not fully commensurate with visible reality.[50] Augustine understood light similarly, and modern thinkers, less inclined to think about light's religious or mystical possibilities, have straightforwardly asserted that light is not an object of vision but the invisible means by which vision occurs.[51] To take a simple example, light

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50. Plato, *The Republic* 507–10, trans. G. M. A. Grube, rev. C. D. C. Reeve, in *Plato: The Complete Works*, ed. John M. Cooper (Indianapolis: Hackett Publishing, 1997), 1127–30. Someone might object that my argument here is mere wordplay because light holds no more privileged place in our perceptual experience than sound: we don't see light (photons or light waves) and we don't hear sound waves because that's not the way we generally talk: we talk about seeing objects (which reflect light) and hearing things (which produce sound waves). But there are problems with this objection. For one, sound waves and light waves are not completely analogous because, as explained above, light waves require no medium of propagation while sound waves do. This fact alone, of course, does not imply that one kind of wave would occupy a different kind of place in our perceptual experience than the other, but it does alert us to the possibility. Relying on special relativity to make his point, John Schumacher argues that light's "order of movement" is utterly different from that of sound. Acoustical events may be plotted against a backdrop of visual experience and thereby anticipated before they arrive. Upon seeing a flash of lightning, we know thunder is on its way. But, says Schumacher, there is no comparable backdrop for visual events. We cannot see them or anticipate their coming; we just see them upon their arrival. In Schumacher's words, "Any truly limit movement must occupy a unique place in our experience: we can have no news of its upcoming arrival until it arrives itself, but then it has already arrived." This fact offers insight into the puzzling postulate that the speed of light is constant for all inertial observers. "With no warning of the light that arrives at our place, we cannot resolve its movement in experience," says Schumacher. Unable to see light from afar or to step back from it to view it objectively, we are locked into its unfailing presentness, and there is no backdrop against which its speed, always a matter of arrival for any observer, can be differently parameterized for differently moving observers. John A. Schumacher, *Human Posture: The Nature of Inquiry* (Albany, N.Y.: SUNY Press, 1989), 113–14. See also David Grandy, "Gibson's Ambient Light and Light Speed Constancy," *Philosophical Psychology* 25 (August 2012): 539–54.

51. Jonathan Powers writes, "When we see an object we see patches of colour, of light and shade. We do not see a luminescent stream flooding into our eyes. The 'light' we postulate to account for the way we see 'external objects' is not given in experience; it is inferred from it." Jonathan Powers, *Philosophy and the New Physics* (London: Methuen, 1982), 4. P. W. Bridgman's comment is also

shone into the night sky does not visually announce itself, just as a movie projector beam is not seen above one's head in a theater. Illuminated raindrops or dust particles may be seen, but that is light in conjunction with something material, not light *per se*. Another example is the sun as seen from the moon. It is a material ball of light against the blackness of outer space; it does not visibly radiate light because the moon has no atmosphere to scatter light. As MacKenzie concludes, "Light has a quality of excluding us from beholding it in its most brilliant expression."[52]

If indeed we could see light, what else would we see? We would be wrapped in a cocoon of light—light would be our blindfold. Instead we are visually situated in the unbounded expanse of light's unseen presence and can therefore see things millions of miles distant. By not seeing light *per se*, we see to the farthest reaches of the universe.

With this thought in mind, Hans Blumenberg describes light as "the 'letting appear' that does not itself appear . . . , the gift that makes no demands, the illumination capable of conquering without force."[53] Given its immense cosmological significance, one might expect to see it on bright display, monopolizing the stage, as it were, and commanding our visual interest. Surprisingly, however, it shows up only as it

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apropos: "The most elementary examination of what light means in terms of direct experience shows that we never experience light itself, but our experience deals only with things lighted. This fundamental fact is never modified by the most complicated or refined physical experiments that have ever been devised." P. W. Bridgman, *The Logic of Modern Physics* (New York: Macmillan, 1927), 151. Finally, James J. Gibson writes, "A single point of light in an otherwise dark field is not 'light'; it specifies either a very distant source of light or a very small source, a luminous object. A single instant or 'flash' of such a point specifies a brief event at the source, that is, the *on* and the *off*. A fire with coals or flames, a lamp with a wick or filament, a sun or a moon—all these are quite specific objects and are so specified; no one sees mere light. What about a luminous *field*, such as the sky? To me it seems that I see the sky, not the luminosity as such. What about a *beam* of light in the air? But this is not seeing light, because the beam is only visible if there are illuminated particles in the medium. The same is true of the shafts of sunlight seen in clouds under certain conditions." James J. Gibson, *The Ecological Approach to Visual Perception* (Hillsdale, N.J.: Lawrence Erdbaum, 1986), 54; emphasis in original. Other statements to the same effect from a broad range of thinkers could be offered, but I hope these suffice to make the general point.

52. MacKenzie, *"Obscurism" of Light*, 110.

53. Hans Blumenberg, "Light as a Metaphor for Truth," in *Modernity and the Hegemony of Vision,* ed. David Michael Levin (Berkeley: University of California Press, 1993), 31.

announces *other things*. That is, it shows up only in conjunction with bodies responsible for its fall from light speed to lower speeds.

Let me venture a theological parallel here. Light "comes down" from its characteristic speed as it is slowed and blocked by material bodies, just as, in Christian thought, God the Son came down from heaven while being hedged about by earthly limitations and to be seen of mortals. This divine descent or condescension, moreover, involved a voluntary dimming of God's glory. In his epistle to the Philippians, Paul wrote that Jesus Christ, though in "the form of God," "made himself of no reputation, and took upon him the form of a servant, and was made in the likeness of men: And being found in fashion as a man, he humbled himself, and became obedient unto death, even the death of the cross" (Philip. 2:5–8). As we find it in this world, light seems to similarly retreat into nameless obscurity, notwithstanding its cosmic significance. To the extent that it announces itself, it also announces other things, thereby allowing them to become the cynosure of all eyes, the spectacle that commands our interest. Put differently, a principle of cosmic unity subserves local, mundane events, letting them appear more sovereign than they really are. That which is great—of great ontological import—becomes least as it is eclipsed by events of lesser significance. Events, one might add, that draw their intelligibility from the world-structuring principle they eclipse.

Rarely do we notice the giftlike aspect of the seeing experience. Of course we see by the agency of light, but, more fundamentally, we see because light graciously cedes its place in the visual experience to other things. It is a vanishing act of divine munificence, and one that gives us the visible world. As noted, Plato surmised this truth nearly 2,500 years ago, and he consequently called light the "offspring of the good, which the good begot as its analogue": just as the ungraspable idea of the good imparts intelligibility to all other (lesser) ideas, so unseen light imparts visibility to all physical bodies.[54] One is like the other in that neither can be reduced to the revelation it effectuates.

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54. Plato, *The Republic* 508b–509c. Later in the book (616b–d) Plato assigns to light a world-structuring function. Reporting the near-death, or after-death, experience of Er, Socrates (Plato's principal interlocutor) states that Er and other deceased souls journeyed "to a place where they could look down from above on a straight column of light that stretched over the whole of heaven and earth, more like a rainbow than anything else, but brighter and more pure. After another day, they came to the light itself, and there, in the middle of the light, they saw the extremities of its bonds stretching from the heavens, for the light binds the heavens like the cables girding a trireme and hold its entire revolution together."

Long after Plato portrayed light as having cosmological import, Einstein, working from different premises, took a comparable step. He insisted that the speed of light is not merely the rate at which light moves through space and time; instead, it is a principle that structures the space-time universe. Thus light may be said to be much more than the agency that enables vision. It is, as scripture portrays it, a font of cosmic intelligibility, or "the true light that lighteth every man that cometh into the world" (D&C 93:2; see also John 1:9). By reason of its universal relevance, it gives us a cosmic expanse in which we "live, and move, and have our being" (Acts 17:28), and, more than that, it graciously slips from view so that we can act without being overpowered by its sublime presence.

Redemptive Light at the Interface of Two Worlds

Quantum mechanics offers two views of light, each of which would appear to exclude the other: wave and particle. A similar light-related tension informs special relativity. On the one hand, light moves finitely fast, even when moving in a vacuum. On the other, according to Einstein, it "plays the role, physically, of an infinitely great velocity."[55] This role emerges from Einstein's decision to make the finite velocity of light an invariant velocity from all perspectives. Nothing we do consequently—no motion or maneuver on our part—will ever allow us to close the interval on a light beam moving *in vacuo*: it will always stay ahead of us by a speed of 186,000 miles per second. In brief, light is perfectly indifferent to the motion of material objects. As Arthur Zajonc expresses it, "The nature of light cannot be reduced to matter or its motions; it is its own thing."[56] And yet, as just noted, light is very much in the mix of material reality.

I have suggested what this might mean for those interested in religion and philosophy. I might also remark that some have found it useful to think of light as a horizon—something at the interface of two worlds.[57] Like light, horizons suggest the infinite while demarcating the finite, and they do this by being indifferent to the speed at which we attempt to overtake them. Not fully coincidental with the physical features of the world that set them off, horizons recede with our advance, thereby neutralizing

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55. Einstein, "On the Electrodynamics of Moving Bodies," 401.

56. Arthur Zajonc, *Catching the Light: The Entwined History of Light and Mind* (New York: Oxford University Press, 1993), 260.

57. David Bohm, *Wholeness and the Implicate Order* (London: Ark Paperbacks, 1983), 123.

attempts to overtake them. Absolute invariance in the face of local change, the experience of stepping off toward something without closing the interval, may prepare the mind for larger possibilities. Hugh Nibley observed that desert Bedouin reflexively assumed that life went on forever because, travel as they may, they never reached the horizon.[58]

At issue here is what L. H. Myers calls "the near and the far." In his novel of the same name, Myers describes desert travelers whose daily toil is redeemed by the sight of the setting sun. As the twelve-year-old Prince Jali watches the sun sink in the west every evening, the travail of the day is suffused with an unsuspected vastness of meaning. Hence for Jali there are "two deserts": one that is "weariness to trudge" and that makes him feel like "an insect" crawling across "a little patch of brown sand," and another, brought on by "the red glitter of sunset" whose "glory for the eye" turns "his whole body into a living arrow" ready to "flash into" the faraway vista.[59]

The near, of course, is the finite sense of being tightly circumscribed and thus cut off from other things in the space-time regime, which seems to stretch on forever in an absolutely impersonal way; the far is the sense of expansive unity, of being gathered into some widely meaningful pattern of things. The far breaks the frame of the near; that is, the frame of ordinary or myopic reality. Later in the book, Hari, contemplating the landscape at sunset, yearns for the moment when "the knot of selfhood [would] loosen" so as to dissolve him into some larger pattern of possibility.[60] Whether all people would agree with the precise description, most have at one time or another been rescued from the daily grind by sunset or some other light-related event that unexpectedly redeems their struggle.

It might be that at the end of the day light is a redemptive principle, one that brings us back home, albeit at a higher turn of the spiral. In his book *How Experiments End*, Peter Galison tells us why sunset is not quite the mirror image of sunrise: "The sunset, refracted through the dust and droplets kicked up by all that has happened, recounts in compressed form the whole story of the day."[61] If sunrise holds forth

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58. Hugh Nibley, *The Message of the Joseph Smith Papyri: An Egyptian Endowment* (Salt Lake City: Deseret Book, 1975), 80.

59. L. H. Myers, "The Near and the Far," book 1 of *The Root and the Flower* (London: Jonathan Cape, 1935), 15–16.

60. Myers, "Near and the Far," 180–81.

61. Peter Galison, *How Experiments End* (Chicago: University of Chicago Press, 1987), 278.

multiple yet-to-be realized possibilities, sunset captures all realized possibilities—all events—in a single moment. Or, to follow Sappho, sunset (announced by Hesper, the evening star) gathers together all that sunrise scatters abroad:

> Thou, Hesper, bringest homeward all
> That radiant dawn sped far and wide,
> The sheep to fold, the goat to stall,
> The children to their mother's side.[62]

First, light scatters abroad, then it gathers back home. The scattering action of light is easy to see; visually speaking, light opens up and bids us entry into a world of different, apparently scattered objects. The gathering action of light is much harder to descry. Dante's epiphany led him to understand that in light's economy all which "in the universe, seems separate, scattered" is really "ingathered and bound by love into one single volume."[63] Einstein's special relativity prompts a pared-down, naturalized realization of the same thought: light makes "zero-interval linkages between events near and far."[64]

Dante, of course, had no inkling of Einsteinian space-time, and we can be certain that Einstein was not thinking of Dante when he theorized that events lying along the path which light travels through space-time are without interval from the point of view of a photon. The two men thought along very different wavelengths. It is, nevertheless, an interesting parallelism that they came to similar conclusions about light's capacity to connect "events near and far" from our perspective in a "zero-interval" or spaceless, timeless fashion.

Keying off both Dante and Einstein, let me suggest that the two-way action of light expresses the atoning sacrifice of Jesus Christ—his exile or descent from heaven, his travail, and his ascendant return. In section 88, just before the light of Christ is identified with the light of the sun, moon, and stars, we read, "He [Christ] that ascended up on high, as also he descended below all things, in that he comprehended all things, that he might be in all and through all things, the light of truth; which truth shineth. This is the light of Christ" (D&C 88:6–7).

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62. Sappho, *The Songs of Sappho,* trans. Rennell Rodd (Mount Vernon, N.Y.: Peter Pauper Press, 1966), 57.

63. Dante Alighieri, *Paradiso,* canto 33, lines 85–87.

64. Wheeler, *Journey into Gravity and Spacetime,* 43.

The themes of descent, ascent, and comprehension are here woven together. Comprehension is integral in that it connotes understanding, which implies the gathering together or encompassing of things that once were separate, scattered, chaotic, and therefore lost, in the sense that they could not be brought into a comprehensive whole. To say that Christ "comprehended all things" is to suggest that he renders all things knowable and reachable by having brought them within the comprehensive embrace of his sacrificial love. His descent below all things and his subsequent ascent back into heaven trace an upward all-inclusionary spiral that is the physical cosmos. This originative act of truth and love is not tucked away in the past, not lost from view. It is, after all, the very act that rescues and gathers in all that is lost. It therefore registers as ever-present truth: it shines. It manifests itself in the light of the sun, moon, and stars, which is the light of Christ. Like photons moving at light speed, and like the Atonement itself, that light is undying.

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Science as Storytelling

Barry R. Bickmore and David A. Grandy

Much of our modern culture revolves around something called "science." Governments want "scientific" analysis of various problems to guide policymaking. News reports detail the latest "scientific" studies about human health. People worry about whether their religion conflicts with "science." But what is science? This turns out to be a complicated and controversial question, and whenever we try to come up with a really precise definition, we end up calling some activities "science" that we would rather exclude, or excluding some activities we would like to include.[1] For example, some people distinguish science from other activities by noting that scientists perform experiments. However, some sciences aren't particularly experimental—for example, it is hard to imagine astronomers performing experiments on stars that are millions of light-years away. On the other hand, astronomers do collect and record observations, even if these cannot properly be called "experiments." Is the collection of observations of the natural world the defining feature of science? Apparently it isn't, since astrologers have been observing and recording the motions of heavenly bodies for millennia, and most people would not classify astrology as science. Scientists typically go on to explain their observations by creating theories that might be used to predict or control future events. However, astrologers also explain their observations by creating theories, and they certainly try

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1. Larry Laudan, "The Demise of the Demarcation Problem," in *But Is It Science? The Philosophical Question in the Creation/Evolution Controversy,* ed. Michael Ruse (Amherst, N.Y.: Prometheus Books, 1996), 337–50.

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We originally wrote a version of this essay for use in introductory college science courses to address a number of prevalent issues with teaching the nature of science and how it relates to religion. Students commonly develop a simplistic view of science as "just the facts," which can lead to a tendency to dismiss scientific conclusions that challenge their preconceived notions—especially those connected with religious or political views.[1] Because all scientific reasoning includes components

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that go beyond "the facts," it is never difficult for those with naïve views of the nature of science to find reasons to dismiss a theory that makes them uncomfortable. Similarly, many scientists are not religious, and those who are tend to gravitate toward religious views that downplay the supernatural.[2] In fact, some scientists share in certain inaccurate views of the nature of science.[3]

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1. D. M. Moss, E. D. Abrams, and J. Robb, "Examining Student Conceptions of the Nature of Science," *International Journal of Science Education* 23, no. 8 (2001): 771–90; J. L. Rudolph and J. Stewart, "Evolution and the Nature of Science: On the Historical Discord and Its Implications for Education," *Journal of Research in Science Teaching* 35, no. 10 (1998): 1069–89; M. F. Antolin and J. M. Herbers, "Perspective: Evolution's Struggle for Existence in America's Public Schools," *Evolution* 55, no. 12 (2001): 2379–88; P. Farber, "Teaching Evolution and the Nature of Science," *American Biology Teacher* 65, no. 5 (2003): 347–54; R. G. Sprackland, "Teaching about Origins: A Scientist Explains Why Intelligent Design Isn't Science," *American School Board Journal* 192, no. 11 (2005): 26–30.

2. E. H. Ecklund and C. P. Sheitle, "Religion among Academic Scientists: Distinctions, Disciplines, and Demographics," *Social Problems* 54, no. 2 (2007): 289–307.

3. J. C. Pitt, "The Myth of Science Education," *Studies in Philosophy and Education* 10, no. 1 (1990): 7–17; F. Abd-El-Khalick and N. G. Lederman, "Improving Science Teachers' Conceptions of Nature of Science:

The result is that most science profes-
sors would rather avoid talking about
the science-religion interface, but their
students almost inevitably bring it up.[4]
Common responses by the professors
can be perceived as dismissive of some
students' religious views. The "science
as storytelling" approach is designed to
help science students (and professors)
gain a more productive view of both
the nature of science and the science-
religion interface. This approach has
been shown to be effective for these
purposes in multiple science courses, and at both secular and reli-
gious colleges.[5]

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A Critical Review of the Literature," *International Journal of Science Edu-
cation* 22, no. 7 (2000): 665–701.

4. Ecklund and Sheitle, "Religion among Academic Scientists,"
289–307.

5. Barry R. Bickmore, Kirsten R. Thompson, David A. Grandy, and
Teagan Tomlin, "Commentary: On Teaching the Nature of Science and
the Science-Religion Interface," *Journal of Geoscience Education* 58, no. 3
(2009): 168–77; Barry R. Bickmore, Kirsten R. Thompson, David A.
Grandy, and Teagan Tomlin, "Science as Storytelling for Teaching the
Nature of Science and the Science-Religion Interface," *Journal of Geosci-
ence Education* 58, no. 3 (2009): 178–90; Cindy S. Larson-Miller, "Chang-
ing Perceptions of Science in Undergraduate Students: A Mixed Methods
Case Study" (PhD diss., Univ. Nebraska, 2011), available online at http://
digitalcommons.unl.edu/teachlearnstudent/16.

to use them to predict things.[2] Furthermore, there is a certain breed of physicists, called "string theorists," who have not yet come up with a single testable prediction, but that does not keep them from being classed with the other scientists in the university physics departments where they work.

Even if it isn't easy to come up with a precise definition of "science," however, most people would agree that, in general, science does involve collecting observations about the natural world and coming up with explanations for them that might help us predict or even control the future. Therefore, we could propose a loose definition of science like the following:

> *Science is the modern art of creating stories that explain observations of the natural world and that could be useful for predicting, and possibly even controlling, nature.*

It may bother some readers that we used the word "stories" instead of "explanations," "theories," or "hypotheses" in our definition. It might be a bit shocking to think of science as a kind of "storytelling," because we are accustomed to thinking about science as *factual*, whereas storytelling sounds so *fictional*. After all, people have always told stories to explain natural phenomena—for example, the ancient Greeks explained the daily rising and setting of the sun using the story of Apollo riding his fiery chariot across the sky—but nobody would call such stories "science" in the modern sense. However, we chose the word "stories" to emphasize the idea that the explanations scientists come up with are not themselves facts. Scientific explanations are always subject to change, since any new observations we make might contradict previously established explanations. The universe is a very complicated place, and it is likely that any explanation that humans come up with will be, at best, an approximation of the truth. Albert Einstein emphasized the point that scientific explanations are not facts when he remarked that they are "free creations of the human mind, and are not, however it may seem, uniquely determined by the external world."[3] In other words, scientific explanations are creative products of our minds—stories—not facts that we "discover." A Nobel Prize–winning biologist, Peter Medawar,

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2. Samir Okasha, *Philosophy of Science: A Very Short Introduction* (Oxford: Oxford University Press, 2002), 1–2.

3. Albert Einstein and Leopold Infeld, *The Evolution of Physics* (New York: Simon and Schuster, 1966), 31.

explained it even more bluntly. "Scientists are building explanatory structures, *telling stories* which are scrupulously tested to see if they are stories about real life."[4]

Another point that may trouble some readers about our definition of science is that we haven't yet excluded the astrologers. A prominent philosopher of science put it this way: "The difference between science and other enterprises that seek explanations of why things are the way they are can be found in the sorts of standards that science sets itself for what will count as an explanation, a good explanation, and a better explanation."[5] This is not to say that other fields are not effective in explaining certain phenomena, but in order to clarify why scientists do not consider astrology (or history, or philosophy, or any number of other fields of study that could fit our loose definition) as "science," we must explain the kind of standards scientists set for themselves when developing their stories.

Rules for Scientific Storytelling

Just like any literary genre, scientific storytelling follows certain rules that set it apart from other genres. History, historical fiction, realistic fiction, and fantasy, for example, are all types of storytelling that follow different rules regarding how closely bound they must be to the documents, experiences, and artifacts we consider to be acceptable evidence for how life was and really is. And, of course, we have to make rules about what we consider acceptable evidence—whom to believe when sources disagree, when to dismiss eyewitness accounts as impossible, what different kinds of archaeological artifacts mean about how people lived, and so forth. However, it is important to realize that rules are chosen not because no others are possible or because they are infallible guides to "truth" but for convenience in attempting to accomplish certain goals. Remember that science is the art of creating explanations for natural phenomena that could be *useful* for predicting, and possibly controlling, nature. What kinds of rules could be designed to make science more useful in this way?

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4. Peter Medawar, *Pluto's Republic: Incorporating the Art of the Soluble and Induction and Intuition in Scientific Thought* (Oxford: Oxford University Press, 1984), 133, italics in original.

5. Alex Rosenberg, *Philosophy of Science: A Contemporary Introduction* (New York: Routledge, 2000), 21.
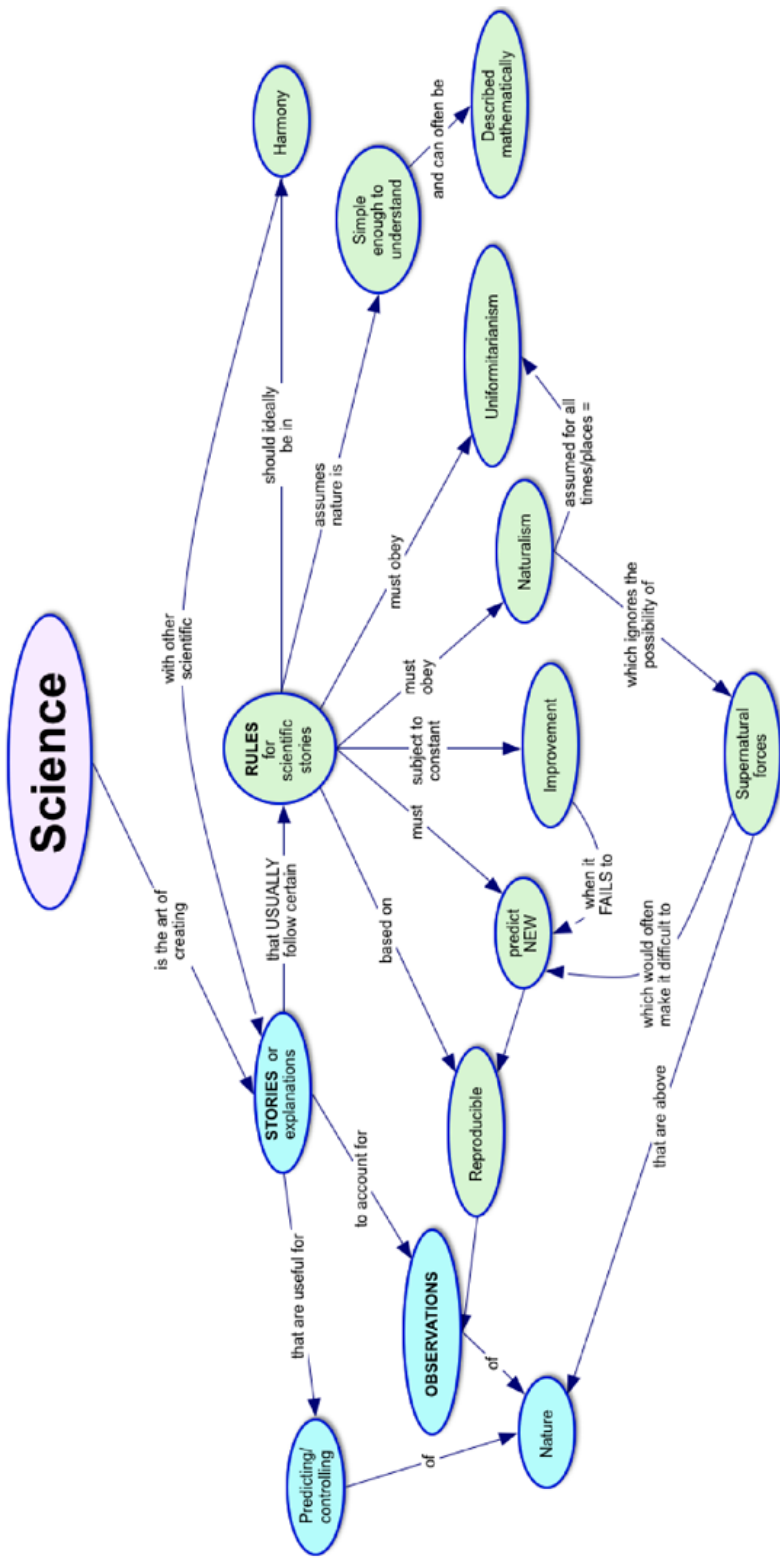
Figure 1. Concept map of the definition of science.

Reproducibility

Our first rule has to do with the kinds of observations that are acceptable as a basis for scientific stories.

> *Rule 1: Scientific stories are crafted to explain observations, but the observations that are used as a basis for these stories must be reproducible.*

For example, a chemist might perform an experiment in her laboratory and make up a story to explain her observations. If this story is to even be considered as a scientific explanation, another chemist should, in principle, be able to make the same observations when performing an identical experiment. (This doesn't mean all these observations actually will be reproduced by other scientists, only that they *could* make the same observations if they wanted to go to the trouble.) If a paleontologist creates a story to explain how life on earth has changed over time, based on fossils he has found in various rock layers, another paleontologist ought to be able to find the same kinds of fossils in those layers. Even an astronomer who observes something strange and fleeting happening in the night sky will immediately call his colleagues at other observatories and ask them to train their telescopes on the same location.

Given that scientific observations are supposed to be reproducible, scientists try to make their observations as carefully as possible. Precise measurements are often very difficult and expensive to make. Scientists are constantly trying to improve the quality of their observations, however, because precise measurements are usually much more difficult to explain. When observations are more difficult to explain, it follows that there are fewer plausible explanations to choose from.

Note well, however, that it isn't the *story* that is reproducible but the *observations* upon which the story is based. One cannot expect our paleontologist to reproduce in some laboratory how life has changed on Earth over millions of years. For one thing, most students would not want to spend such a long time in graduate school.

There are very good practical reasons for this rule—for example, people have been known to be tricked into thinking they see things that aren't really there or even to hallucinate. Sometimes people tend to "see" what they expected or wanted to see, and sometimes they even lie. Should we accept someone's personal experience as "data" that has to be explained by science? Clearly that would open up a can of worms, and most scientists wouldn't want to deal with it.

As practical as this rule is, on the other hand, it is possible that it could be a limitation on science, especially in cases where someone observes something that happens only infrequently. For example, "falling stars" are frequently observed streaking across the night sky, but it is relatively rare for them to be observed in such a way that they can easily be connected with the meteorites that are sometimes found on the ground. In the eighteenth and early nineteenth centuries, reports of "stones falling from heaven" were met with extreme skepticism among scientists because this wasn't possible according to the prevailing theories about the makeup of the heavens. When a meteorite fall was reported by two Harvard scientists, Thomas Jefferson responded, "I could more easily believe that two Yankee professors would lie than that stones would fall from heaven."[6]

In essence, the rule that observations must be reproducible to be "scientific" narrows the field of "facts" that science must explain to experiences that are, in principle, transferable from person to person. Inner religious experiences, strange phenomena that only ever occur to single observers (such as near-death experiences or purported UFO abductions), and even extremely rare (and therefore sparsely attested) phenomena are ruled out as acceptable data for anything but psychological studies. This is not to say that such observations must be hallucinations or lies. Rather, this is simply the scientist's way of dealing with the fact that personal experiences are not always reliable or reproducible.

Predictive Power

Scientific stories are usually called "hypotheses" or "theories." For some people, these words imply that scientific stories have nearly the status of facts, while for others they only imply a hunch or guess. Perhaps the truth lies somewhere in between these extremes, and a more realistic viewpoint can be gained by considering our second rule for scientific stories.

> *Rule 2: Scientists prefer stories that can predict things that were not included in the observations used to create those explanations in the first place.*

When scientists first create a story, they try to explain as many observations as possible. However, there is no way of being sure that they have considered all possible explanations, so these initial stories are

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6. Fletcher G. Watson, *Between the Planets,* rev. ed. (Cambridge, Mass.: Harvard University Press, 1956), 147.

only considered as educated guesses. We call these educated guesses *hypotheses*. A hypothesis is a sort of "*if . . . then*" statement. That is, *if* the explanation is true, *then* certain observations should follow.[7] A good hypothesis will not only explain the observations already collected, but also predict new things that have not been observed. If some of these new predictions can be tested, then we have a way to see if our story can hold up. Once a story has successfully predicted many new observations, scientists start suspecting that it might be on the right track, and start calling it a "theory" instead of a hypothesis. Therefore, even if some scientific stories are guesses, they are at least educated guesses (hypotheses). And even if we cannot really say that scientific stories are the truth, some theories have successfully predicted so many things that we think it is reasonable to believe they are at least on the right track.[8]

Another example should serve to show that the *truth* of a story is not the issue when we are deciding whether a story is *scientific*. In the nineteenth century, the great British scientist Lord Kelvin suggested that the sun might be a glowing ball of liquid, formed as meteorites coalesced by gravitational attraction and generated heat from friction. If this were true, Kelvin reasoned, it ought to be possible to calculate the sun's age, based on estimates of its annual heat loss. He estimated that the sun had been losing heat for a maximum of 100 million years.[9] Further research into the frequencies of light waves emitted by molten meteorites might also have served as a test of the predictive power of Kelvin's story. Now, it turns out that scientists since Kelvin have come up with much better ideas about what the sun is and how its heat is generated, and these new explanations can account for many more observations than Kelvin's. For example, the light waves emitted by the sun are not characteristic of molten meteorites, and radiometric dating techniques seem to support the idea that life has existed on Earth for much longer than 100 million years. In fact, heat generated by radioactivity in the Earth had not been discovered when Kelvin made his calculations, and so he failed to account for it.[10] In other words, Kelvin's explanation is now considered

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7. Eugenie C. Scott, *Evolution vs. Creationism: An Introduction,* 2d ed. (Berkeley: University of California Press, 2004), 12–13.

8. Philip Kitcher, *Science, Truth, and Democracy* (Oxford: Oxford University Press, 2001).

9. William (Lord Kelvin) Thomson, "On the Age of the Sun's Heat," *Macmillan's Magazine* 5 (November 1, 1861): 388–93.

10. Naomi Oreskes, *The Rejection of Continental Drift: Theory and Method in American Earth Science* (Oxford: Oxford University Press, 1999), 48–51.

to be wrong because its predictions failed and because it did not take into account radiogenic heat. However, it is still considered a *scientific* explanation, because it generated predictions that weren't originally used in the creation of the explanation. This kind of prediction allows science to go forward, rather than getting stuck in a rut.[11]

To this end, scientists accord special value to stories that are *mathematically precise*. Lord Kelvin, for example, was able to calculate an absolute upper bound for the age of the sun and posited a relatively precise account of the kind of material from which the sun might be composed. This kind of precision is valuable because it offers a larger target at which other scientists can shoot. In other words, if a story that generates precise, testable predictions happens to be blatantly wrong, it should be relatively easy to shoot it down and move on.

Although some "scientific" explanations don't immediately produce predictions that we can test (remember the "string theorists") and vary widely in degree of precision, it is easy to see why scientists *prefer* precise, testable stories. That is, if we allow too many explanations that cannot be tested in any way, then it becomes harder to decide whether to prefer one story over another.

Prospects for Improvement

In order to fully understand why scientists prefer testable predictions, one must first come to the realization that science is not about establishing "the facts" once and for all, but about a *process* of weeding out bad explanations of the facts we collect and replacing them with better ones.

> *Rule 3: Scientific stories should be subject to an infinitely repeating process of evaluation meant to generate more and more useful stories.*

There is no set method for scientific investigations, contrary to what some people have assumed. Scientists can obtain inspiration for their

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11. Not only that, but prediction becomes part of the success story of science. "The power of prediction," Thomas Huxley wrote, ". . . is commonly regarded as the great prerogative of physical science." Thomas H. Huxley, *Science and Hebrew Tradition* (New York: D. Appleton, 1903), 10. What he had in mind is that scientific prediction is widely regarded as much more reliable than, say, religious prophecy or psychic precognition. One need only recall the public surprise that accompanied the 1758 appearance of Halley's Comet. Comets had always elicited wonderment, but this time much of the wonderment stemmed from the *accuracy* of Edmond Halley's prediction, which enhanced the status of Newtonian science.

stories in any number of ways, all of which involve considerable creativity, inspiration, or blind luck, and it isn't always clear by reason alone which of a number of competing stories should be favored. However, a basic process for much of what passes for "science" can be outlined as follows.

1. Scientists make observations about the natural world.

2. Scientists come up with explanations that can explain these observations, or at least the ones that we are most sure about, or seem most important.

3. Other consequences of these explanations are evaluated, and scientists come up with ways to observe whether some of those predictions are true.

4. Scientists then make these other observations to test their predictions.

5. If the predictions work out, then the original explanation may be kept. If the predictions do not work out, then scientists do one of three things.

    a. They throw out their initial explanation and try to come up with another one that explains all (or at least most) of their relevant observations.

    b. They slightly modify their original explanation to account for the new observations.

    c. They ignore the new observations that do not fit with their explanation, assuming there must be something wrong with the observations. Then they either go on as if nothing had happened or try to improve the observations.

6. Whether they keep the original explanation or go with another one, scientists always return at this point to step 3 and keep repeating steps 3 through 6 over and over again.

The hope is that following this iterative process will help scientists come up with better and better stories to explain the natural world. What do we mean by "better"? In general, a better story explains more observations or generates more predictions. In other words, it is more useful and amenable to further testing. Other factors may be involved, however. For instance, a scientist may prefer one theory over another because it seems more simple, or elegant. Sometimes scientists give greater credence to observations that were collected by scientists with whom they are personally familiar or who come from the same

country.[12] Thus, scientists should never assume that their favorite stories represent "the truth," because one can never tell whether an even better explanation will pop up next week. However, by tying their stories to real observations of the natural world, scientists hope to at least come up with explanations that are *realistic*, even if they are not exact representations of reality. They try to make their stories progressively "less wrong," even if they can never tell when they have gotten them exactly right.[13]

Indeed, we claimed above that scientists are perfectly capable of ignoring observations that conflict with their established explanations. Why would they do such a thing? The fact is that sometimes observations go wrong—instruments do not work correctly, experiments are contaminated, and people can be deceived in what they think they see. Furthermore, the world is a complicated place, and even if a few observations seem to conflict with an explanation, it may still be mainly correct. And if it isn't immediately apparent how to fix the theory, that's no reason to throw out an otherwise perfectly good explanation. However, if observations that don't fit a scientific story keep piling up rather than being successfully explained away, scientists begin wondering whether they ought to look harder for a better story.[14]

Consider the example of Galileo Galilei (1564–1642). In his time, the geocentric (Earth at the center of the universe) astronomy that was in fashion at the time was in trouble—a number of observations were very difficult to explain with this kind of theory. To overcome some of these problems, Copernicus had proposed that the sun is at the center of the universe, and everything else revolves around it in circular orbits. Galileo used a telescope to produce observations that he then advertised as supporting the Copernican theory. For example, he could show that the brightness of the planets changed throughout the year, which was predicted from the Copernican idea that the Earth should be at different distances from the planets at different times of year. However, the magnitudes of some of these variations were not nearly large enough to be explained by Copernicus's model. Also, many people who looked through Galileo's telescope distrusted it, because although it seemed to work well

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12. Oreskes, *Rejection of Continental Drift,* 51–53.

13. Paul Grobstein, "Revisiting Science in Culture: Science as Story Telling and Story Revising," *Journal of Research Practice* 1, no. 1 (2005): article M1.

14. Thomas S. Kuhn, *The Structure of Scientific Revolutions,* 3d ed. (Chicago: University of Chicago Press, 1970).

when pointed at objects on the Earth, optical illusions (such as double vision) were noted when it was pointed toward the heavens.[15]

Clearly, the Copernican theory had problems of its own, and many of them were not solved for decades, or even centuries, as the Copernican theory was adjusted to accommodate things like elliptical rather than circular orbits and better theories of optics were developed. So why did it quickly become the dominant explanation of the motion of heavenly bodies, even in the face of contradictory evidence? Perhaps the answer is that even if the Copernican theory had problems, its adherents saw the *general idea* of a sun-centered universe as more promising than the idea of an Earth-centered universe, and so they were willing to try to work out those problems. It turns out that in this case their hunch was right, and even if our ideas about how the universe is structured are now quite a bit different than the Copernican model, we can look back and say that the Copernicans had one or two key ideas that turned out to be indispensable.

The idea that we hope to get across here is that, at least in our opinion, the way scientists generate and improve their stories is quite reasonable, even if it isn't exact and involves considerable guesswork. We certainly can't expect this kind of method to generate "absolute truth" on the first, second, third, or millionth try. But when we constantly try to improve our stories by testing and altering them to accommodate more observations, they are pretty much guaranteed to become more "useful." And as they become more and more successful at explaining and predicting more and more things, we at least have some justification for suspecting that they do have some connection with the ultimate truth about how things work.

Naturalism

The kind of human limitations just discussed are not the end of the story, however. It turns out that scientists also deliberately impose certain limitations on their craft for practical reasons, even beyond the limitation that observations be reproducible.

> *Rule 4: Scientific explanations do not appeal to the supernatural. Only naturalistic explanations are allowed.*

When we speak of "naturalistic" explanations, we mean explanations that appeal only to "laws of nature" that operate in a regular fashion. For example, unsupported objects near the surface of the earth always

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15. Paul Feyerabend, *Against Method,* 3d ed. (New York: Verso, 1993), 86–105.

seem to fall downward. We can use this "law of nature" to explain many things, including the directions in which rivers travel, the transport of sediment toward the ocean, and so forth. On the other hand, "supernatural" explanations appeal to the possibility that there might be forces above the "laws of nature" that can suspend those laws. For example, we might call the observation that people die and their bodies decay a "law of nature," but the Christian New Testament explains the claimed sightings of Jesus after his death by teaching that Jesus was resurrected. If this really happened, it seems unlikely to have been the result of the everyday operations of "laws of nature."

Looking back to some of the examples already discussed, it is clear that the explanation of the sun that included the Greek god Apollo is ruled out from the start, whereas Kelvin's explanation is not. Whereas the Apollo story involves a supernatural being, Kelvin appealed only to natural causes, such as the gravitational attraction between meteors and heat generation by friction. He said he favored his explanation of the sun's heat because "no other natural explanation . . . can be conceived."[16]

This distinction brings us to a rather odd problem. That is, many scientists believe in Judaeo-Christian, Muslim, and other concepts of God and spirituality along with most of the rest of the world. Many of them even believe that "supernatural" events have occurred. And yet by the year 1800, it was very rare for scientists to introduce the supernatural into scientific explanations; today it is essentially unheard of.[17] For example, Lord Kelvin not only believed in a Christian concept of God, but he even used his estimate of the age of the sun to show that there could not possibly have been enough time for life on Earth to have evolved from lower forms, as Charles Darwin suggested. He went on to propose that a relatively young solar system ruled out organic evolution, and this, in turn, implied an intelligent Creator. Here he did not use the supernatural to *explain* how life on Earth appeared—he merely argued that the naturalistic explanations that had been proposed so far were deficient. And yet Kelvin used a naturalistic explanation of the sun to make his argument. If Kelvin believed that God supernaturally generated life on earth, then why would he feel compelled to stick to "natural" explanations when offering a scientific account of the origin of the sun?

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16. Thomson, "On the Age of the Sun's Heat," 393.

17. Edward B. Davis and Robin Collins, "Scientific Naturalism," in *Science and Religion: A Historical Introduction,* ed. G. B. Ferngren (Baltimore: Johns Hopkins University Press, 2002), 322–34.

There are three practical reasons for sticking to naturalistic explanations in science. First, supernatural explanations tend not to generate precise new predictions. Not only does this stop the scientific enterprise in its tracks, but it also isn't very useful. That is, supposing the sun is Apollo's chariot, what can we then do with that information? The stories about Apollo do not specify whether his horses leave giant droppings or anything else that might help us determine whether this explanation of the sun is any more likely than others. Science operates by observing *regularities* in nature, but supernatural beings like Apollo might decide to change the natural order at any moment, and how could we predict when or why that would happen? Second, it is usually very difficult to place limits on which supernatural explanations are acceptable. For example, if it is acceptable to say that the sun is Apollo's chariot, then why not Odin's shiny helmet?

Both of these points can be overstated, however. It might well be possible for supernatural explanations to generate new predictions—even some that could easily be tested—but in order for this to be so, we usually must know something in advance about the supernatural agent in question. For example, if we say that God created the world, we can generate predictions about what the world is like only if we know something about what God *could have* and *would have* done during the Creation. And this brings us to our third reason for sticking to naturalistic explanations. Different groups ascribe different attributes to God and other supernatural agents, so if we allowed supernatural explanations in science, we would end up with various versions of Christian, Muslim, Hindu, Buddhist, and Jewish science, to name but a few. In a pluralistic society, and in an age when science is a big-money, publicly funded enterprise, most scientists would prefer that we all just try to come to some sort of compromise, for the moment, and that compromise entails keeping the supernatural out of scientific stories.[18]

Another example of the usefulness of a naturalistic approach to science is the story of the ancient Greek physician Hippocrates. In Hippocrates' day, illness was often attributed to the anger of the gods and other such causes. In that case, a physician's job was to invoke the aid of the gods (usually Asclepius, Apollo's son) to heal the sick person.

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18. It should be acknowledged that this convention in science to exclude all but naturalistic approaches has contributed to a spreading secularism in society since science tends to influence many other disciplines as well as modern culture in general.

Hippocrates challenged this practice, not because he did not believe in the gods, but because he thought that the physicians of his day were often using the gods as an excuse for their own ignorance of the causes of disease. If, on the other hand, diseases were *mostly* the result of natural causes, one might often find natural cures.[19] This sort of pragmatic attitude is very common today, even among deeply religious people. That is, when people are seriously ill, they usually check into a hospital, even though they might also pray for divine help.

On the other hand, even if the supernatural isn't allowed in scientific explanations, individual scientists may still use their religious views or other inner experiences in the creative process. For instance, Albert Einstein frequently mused about how "the Old Man" (referring to his impersonal concept of God) would have done things. However, when it came to his published scientific explanations, "the Old Man" never made an appearance. The Belgian scientist Friedrich Kekulé hit upon the idea that the benzene molecule has a hexagonal (or ringlike) structure after he had a dream in which a snake tried to swallow its own tail, but he went on to test this idea using scientific methods.[20] After recounting a "child-like thought experiment" that led to his special theory of relativity, Einstein explained, "Discovery is not a work of logical thought, even if the final product is bound in logical form."[21] In the creative process, anything goes, so long as a naturalistic and logical account can be given later.

It should be remembered that scientists exclude God and other supernatural agents from their stories *only* because there are practical reasons to do so, and not because they necessarily must. Furthermore, just because they can come up with a naturalistic explanation for something, it doesn't follow that the explanation is *true*. As discussed above, we can never be sure that we have hit upon the one and only possible explanation for our observations, and we can never be sure that more observations will not contradict our stories.

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19. Richard E. Rubenstein, *Aristotle's Children: How Christians, Muslims, and Jews Rediscovered Ancient Wisdom and Illuminated the Middle Ages* (Orlando, Fla.: Harcourt, 2003).

20. Okasha, *Philosophy of Science,* 79.

21. Albert Einstein, "Autobiographische Skizze," in *Helle Zeit—Dunkle Zeit*, ed. Carl Seelig (Zurich: Europa Verlag, 1956), 10, cited in John D. Norton, "Chasing the Light: Einstein's Most Famous Thought Experiment," in *Thought Experiments in Philosophy, Science, and the Arts,* ed. Mélanie Frappier, Letitia Meynell, and James Robert Brown (New York: Routledge, 2013), 130.

Once these points are clear, it should be apparent that once in a while there will be conflicts between science and various religious viewpoints. If we do not allow the supernatural to play any part in scientific explanations, how can we expect them to always be in harmony with religious philosophies that specifically claim there are supernatural influences on the natural order? Occasional conflicts would seem to be inevitable, and therefore such conflicts should not come as a shock to anyone.

Uniformitarianism

Most people will agree that *most of the time* the world operates in a regular manner, according to some natural laws. Therefore, they have little problem with most science as it is now practiced. On the other hand, some people believe that this has not always been the case in the past. For example, some people believe that God created the world out of nothing in the not-too-distant past and that other "miracles" occurred in the past. This poses a problem for the "historical sciences"—those that interpret the present state of things in terms of past events. For example, consider the popular TV series *CSI*. In this show, crime scene investigators (forensic scientists) examine the details of a crime scene (blood spatter patterns, angles of bullet holes, objects that seem out of place, injuries evident on a dead body, and so on) and make up stories about how the present situation might have come about. In order to test their stories, they might shoot bullets into Jell-O, try to mimic the production of blood spatters, use trigonometry to determine from where a bullet might have come, and that sort of thing. The assumption implicit in all of these activities is that the crime scene reached its present state via processes that can be mimicked in the laboratory. They do not even consider the possibility that some supernatural entity might have been involved. Why? Because if they admitted such a possibility, all their normal methods for evaluating evidence would go out the window. Furthermore, when the case reaches the courtroom, even juries packed with deeply religious people tend not to listen to pleas by defense attorneys that supernatural entities adjusted crime scenes to make the defendants look guilty. This brings us to our next rule.

> *Rule 5: Any scientific explanation involving events in the past must square with the principle of "uniformitarianism"—the assumption that past events can be explained in terms of the "natural laws" that apply today.*

How do we explain the presence of certain mountains that have a definite cone shape and are otherwise similar (in rock type and other features) to active volcanoes? The active volcanoes we know today spew out ash and

lava, building on top of themselves to make a cone shape. Is it not reasonable to suggest that perhaps our mysterious cone-shaped mountains are extinct volcanoes? Consider fossils. They look like the remains of living things. Is it not reasonable to suppose that they were once living things that were covered and preserved in sediment, just as dead organisms can be covered and preserved in sediment nowadays? The idea here is *not* that everything has always been the same in every respect or that catastrophic, out-of-the-ordinary events never happen. For example, many scientists believe that an asteroid impact led to the extinction of the dinosaurs. Rather, the idea is that the same "laws of nature" have always been in effect. Astronomers track the motions of asteroids whizzing around the solar system today, and they don't have to invoke the supernatural to suppose that a large asteroid might hit the Earth every once in a while.

Once again, this is something we cannot know in any absolute sense, because we cannot travel back into the past to verify it. And even if we could travel back into the past, we certainly could not verify that the laws of nature have always operated in the same way at every moment and in every location in the past. Furthermore, we may well discover new "laws of nature" in the future that we have never noticed before or discover that some of the laws familiar to us have exceptions.

We already mentioned that there could be supernatural agents who change how nature operates from time to time, and, in fact, many people (including some scientists) believe that this has happened on occasion. Why would scientists, even those who do not believe it, make the assumption of uniformitarianism if it can never really be verified? This question can be answered by asking what would happen if scientists assumed the opposite—that for whatever reason, the laws of nature do not always operate in the same way. In that case, how could they explain any past events? Scientists draw inferences from *regularities* they observe in nature. Therefore, if they were to assume that these regularities did not operate in the same way in the past, science would have to be shut down, at least with respect to explanations involving past events. Again, scientists make this assumption as part of the cost of doing business, rather than because they are sure it is always true. Even if it is only true *most* of the time, such an assumption is probably worthwhile.

This kind of thinking is completely normal, both in science and in everyday life. For example, when scientists perform calculations to predict the gravitational attraction between the Earth and other objects in space, they routinely assume that the Earth is spherical. They know perfectly well that the Earth isn't actually spherical—it is slightly squashed on two sides, and somewhat lumpy. However, the assumption that the

Earth is spherical makes the math involved in the calculation so much more simple that the problem becomes easily solvable, and the answers we obtain are not very far off from those we would have gotten otherwise. As another example, consider the behavior of people who live in earthquake-prone areas. They get up and go to work, assuming all the while that no major earthquakes will occur that day, and yet they know in some corner of their minds that "the big one" might happen any time. They assume something that they know might not be true because their assumption will likely be true most of the time.

Simplicity

Another practical assumption is embodied in our next rule. Once again, it is the kind of assumption that must be made in order for science to keep operating.

> *Rule 6: Scientists assume that nature is simple enough for human minds to understand.*

The assumption of simplicity seems rather arrogant, doesn't it? After all, if humans are a small part of the natural order, how can our tiny brains ever comprehend the whole? Once again, we will not have to look far to find scientists who do not actually believe in this principle, or at least recognize it as unprovable,[22] so why do they make this assumption anyway? If they assumed that nature is *not* simple enough for the human mind to understand, scientists would have to give up on all their attempts to understand things. Therefore, even if the truth is that humans are capable of understanding nature only in a very limited way, it is immensely practical to make the assumption of simplicity.

This rule could be considered a rather obvious point and not directly related to the art of scientific storytelling. However, the assumption of simplicity implies something very important about scientific stories— that is, if nature is *understandable*, then we can come up with correct *explanations* for phenomena, and not just accurate *descriptions*. It is possible to make scientific stories that are more descriptive than explanatory, but the fact is that scientists value explanations more than descriptions. For example, Sir Isaac Newton created a simple, yet amazingly accurate mathematical equation to describe the force of gravitational attraction

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22. Okasha, *Philosophy of Science,* 58–76; Naomi Oreskes, Kristin Shrader-Frechette, and Kenneth Belitz, "Verification, Validation, and Confirmation of Numerical Models in the Earth Sciences," *Science* 263, no. 5147 (1994): 641–46.

between objects, but he could not explain why such a force that acts at a distance should exist. Many of his fellow scientists were very uncomfortable with this and called gravity an "occult" force.[23] If scientists were content merely with description rather than explanation, perhaps the idea of "action at a distance" wouldn't have caused such a stir. However, the search for an explanation for gravity was continued, and eventually Albert Einstein showed that gravitational attraction could be explained as an effect of the curvature of space-time around massive objects.

If some readers are wondering what "the curvature of space-time" might mean, then it is an opportune time to point out another fact about the assumption of simplicity. Namely, even though scientists assume nature is simple enough to understand, it does not follow that nature adheres to what we might call "common sense." The fact is that people don't usually form "common sense" judgments about things based on very careful observations, and when we force ourselves to observe carefully, it often turns out that reality doesn't conform to our expectations. For instance, the ancient Greek philosopher Aristotle explained that earthly objects fall downward because their natural place is on the earth, whereas fire goes upward because its natural place is in the heavens. This is a good "common sense" story that actually explains quite a bit of what people observe on an everyday basis. However, when more careful observations were made about the acceleration of falling bodies, the motion of the planets, and so on, it soon became clear that Aristotle's physics could not do the job. The physics of Newton and Einstein were successive attempts to explain more and more careful observations that conflicted with a "common sense" view of the world.[24]

Therefore, even if nature is simple enough to understand, it does not follow that we can really understand it without an awful lot of hard work and creativity.

Harmony

Scientists generally want people to accept their stories and make use of them, but most people would hesitate to do so if they could see that different scientific explanations contradicted one another at every turn. Even if we can never be sure our explanations are correct, we don't want them to be a mass of confusion.

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23. Rosenberg, *Philosophy of Science,* 82–83.

24. Lewis Wolpert, *The Unnatural Nature of Science: Why Science Does Not Make (Common) Sense* (Cambridge, Mass.: Harvard University Press, 1992).

Rule 7: Scientific explanations should not contradict other established scientific explanations, unless absolutely necessary.

This last rule illustrates something truly grand and wonderful about science. That is, millions of scientists are continually working on creating their stories about various aspects of nature, but these should ideally not be a contradictory mass of confusion. Lord Kelvin, for example, connected his explanation of the sun to well-established principles like gravity and Joule's experiments involving motion and heat. The goal is to make one big story with a coherent plot from the millions of little stories scientists create.

Once again, when we look closely we find that scientific stories do not always fit perfectly together. However, it is by trying to resolve contradictions between different stories, and between scientific stories and observations, that scientists make progress.

This principle illustrates the fact that science really is a community endeavor. People often have the idea that big scientific advances occur when lone geniuses buck the consensus and put forward bold new ideas. There is some truth to that notion, but in fact these new ideas probably wouldn't make it very far without the rest of the scientific community. When it comes to making up a substantially different new story that explains all the relevant observations and harmonizes with other established scientific stories, it is usually just too hard for anyone to do alone.

Galileo Galilei, for example, put forward a number of good physical arguments for Copernicus's theory that the Earth and the other planets revolve in circular orbits around the sun. As we discussed above, however, there is always more than one possible explanation for any set of facts, and Galileo acknowledged that there were ways those who thought the Earth was at the center of the universe could modify their views in minor ways to explain some of the same phenomena. He thought he had one argument that was conclusive, though. This argument is too complex to recount in detail here, but in a nutshell, Galileo thought that the kind of motion posited by Copernicus for the Earth could explain the tides. If Copernicus were correct, the oceans should slosh back and forth once per day. But as others pointed out, in most places the tides go in and out twice per day. To the end of his life, Galileo held on to this argument, even though it was plainly contradicted by observation.[25]

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25. W. R. J. Shea, "Galileo's Claim to Fame: The Proof That the Earth Moves from the Evidence of the Tides," *British Journal for the History of Science* 5

None of this should be taken to mean that Galileo wasn't really a great scientist or that we shouldn't honor his lasting achievements. Even if he didn't get everything right, Galileo did exactly what good scientists do—he published his arguments so that others could read and criticize them. Nowadays, the norm is for scientists to publish their work in "peer-reviewed" journals. They send in a manuscript to the journal office, and the editors send it out to anonymous, expert reviewers, who pick it apart to find any obvious errors or bad arguments. If the manuscript isn't rejected outright, the authors must address the reviewers' concerns before it can be published. The reviewers' criticisms aren't always right, and they don't always catch all the problems, but subjecting scientific ideas to this kind of examination works well to encourage improvement and makes up for some of the personal foibles of the people involved. This is why the requirement to share data and ideas is one of the hallmarks of modern science, in contrast to many earlier systems of knowledge.[26]

The winnowing process doesn't stop once a scientific paper is published. Others then have a chance to study the data and ideas presented and to produce their own, which might reinforce, contradict, expand, or modify what has come before. Think of it as a conversation that goes on indefinitely, gradually changing topics as the parties involved reach agreement, and sometimes revisiting old topics when new information becomes available.

Even if the door is always open to revisit scientific conclusions, the conversation does tend to move on. But how? Two prominent science historians put it this way: "History shows us clearly that science does not provide certainty. It does not provide proof. It only provides the consensus of experts, based on the organized accumulation and scrutiny of evidence."[27] In a scientific context, achieving "consensus" rarely, if ever, means that 100 percent of the experts agree. As we just saw, even great scientists like Galileo can sometimes dogmatically hold on to faulty arguments. Even if nearly all the experts are convinced of a particular scientific story, it may turn out to be wrong in important respects.

(December 1970): 111–27.

26. Robert K. Merton, *The Sociology of Science: Theoretical and Empirical Investigations* (Chicago: University of Chicago Press, 1973), 274.

27. Naomi Oreskes and Erik M. Conway, *Merchants of Doubt: How a Handful of Scientists Obscured the Truth on Issues from Tobacco Smoke to Global Warming* (New York: Bloomsbury Press, 2010), 268.

Nevertheless, if we want to talk about which parts of scientific stories are "settled" in some sense, the consensus of experts is all we have.

This distinction is especially important when the public looks to scientists for guidance about policy issues. If we are trying to decide whether to restrict tobacco smoking or cut down on greenhouse gas emissions, for example, we generally want to base such decisions at least partially on what science tells us about the dangers of secondhand smoke and human impacts on the climate system. It is all too easy to find a handful of experts on any issue who will disagree even with an overwhelming consensus of their colleagues. They could be right, or they could (more likely) be wrong. Expert opinion is not altogether immune to political pressures or considerations such as the source of research funding. One reasonable response to these dilemmas would be for everyone to become experts on these issues themselves, but most of us simply don't have the time to put in the necessary work. Another reasonable response would be to determine the extent to which there is an expert consensus, and go with the majority. Perhaps there are other reasonable responses, but in a realm where absolute certainty and proof do not exist, "reasonable" is often the best we can do.

Conclusions

Clearly, science is not solely about discovering "facts" about the natural world, although scientists do spend a lot of time making observations and conducting experiments. Rather, the real essence of science is *storytelling*—creatively making up stories to *explain* what we observe in the natural world. But how is science different from other kinds of attempts to understand the world? We have listed a few rules of thumb to help make this distinction, but in some cases these rules have clear exceptions. For example, scientific stories aren't always immediately testable, and therefore aren't always amenable to the constant winnowing process that scientists employ. They also don't always mesh perfectly with other established scientific explanations. However, scientists clearly place a much higher value on stories that make precise, testable predictions about the natural world and mesh well with the other stories scientists tell. This *value system*, more than anything else, is what makes modern science so powerful. If scientists place more value on stories that predict new things, then the best scientific stories are the ones that are put at the greatest risk of failure. And when they do fail, scientists eventually try to find and fix the problems, leading to even more powerful stories. Similarly, the warning flags that go up when a scientific story doesn't mesh

well with others can lead to more progress as scientists try to resolve the apparent contradictions. By constantly subjecting their stories to this kind of scrutiny, scientists try to make their stories *realistic,* even if we can never tell whether we have hit upon a completely true description of reality.

However, some of the rules explained here represent unprovable assumptions that scientists adopt in order to make the problems they tackle in some sense solvable. If there really were supernatural entities that sometimes alter the natural order, science would be blind to that fact. If nature were really too complex for the human brain to comprehend, science would ignore it. In some other fields of inquiry (such as religion or philosophy), we can ask "why" things happen, or what "ought" to be done, but not in science. Science can help us control powerful processes like nuclear fission but cannot tell us whether to use them for peaceful or warlike purposes. Indeed, scientists mostly limit their stories to explaining only those observations that are reproducible, and this sometimes might exclude aspects of reality that are not easily transferable from one person to another. Therefore, science is a powerful, but limited, path to understanding.

When more people see science for what it is—a powerful yet limited and thoroughly human enterprise—it is our hope that they will make more informed judgments about where scientific stories should fit in their own lives and in contemporary society.

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Goodness and Truth

An Essay on
Ralph Hancock's *The Responsibility of Reason*

Joseph M. Spencer

Since Plato at least, the destiny of Western thought has been to make sense of the relationship between the ideal and the real, between the formal and the material, between the intelligible and the physical, between theory and practice.[1] One way to understand the fracturing event that, half a millennium ago, inaugurated modernity and effectively divided Western history in two, would be to see in it a shift: from widespread belief that the formal is primary and the material derivative, to widespread belief that the material is primary and the formal derivative. On the whole (but not without important exceptions), premoderns took the ideal to be metaphysically fundamental. And on the whole (but, again, not without important exceptions), moderns take the physical to be metaphysically fundamental. The shift from premodernism to modernism did not happen all at once, of course. Modernity's beginnings are difficult to establish, and its progress has been erratic and complex. Nonetheless, it makes sense to understand the past five centuries as the era in which some form of metaphysical materialism increasingly presented itself as a more natural option than its alternative.

For important reasons, the Latter-day Saint will not be satisfied with any suggestion that the premodern and the modern worldviews must amount to dichotomous options. There is no mistaking that certain Latter-day Saints see themselves as defenders of either the premodern or the modern; this situation is almost always because of what these

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1. For an analysis of the history of philosophy in these terms, see Donald Davidson, *Truth and Predication* (Cambridge: Harvard University Press, 2005).

persons take to be the ethical or moral consequences of espousing the one position or the other. Nevertheless, any strict taking of sides in this debate is problematic from a Mormon point of view.

On the one hand, Mormonism's founding scripture, the Book of Mormon, announced from its first appearance in the nineteenth century that one of its principal purposes was to contest modernity by insisting that God is the same today as yesterday, and that God remains a God of miracles.[2] To that extent, Mormonism would seem to have been aimed from the very beginning at giving premodern Christianity new life. On the other hand, Mormonism's founding prophet, Joseph Smith, provocatively preached a theological materialism so thoroughgoing—with an embodied God, even— that his religion would have a difficult time fitting comfortably into a premodern context.[3] To that extent, Mormonism would seem to have been aimed from the very beginning at organizing a distinctly modern form of Christianity. At once modern and premodern, the Mormon religion troubles the traditional categories that organize what remains the core of philosophical discussion in the West.

The intellectual history of The Church of Jesus Christ of Latter-day Saints can be recounted broadly in terms of distinct attitudes toward what I have just outlined. Much of the nineteenth century—up through Brigham Young's death and into the decade or so of serious struggle with the federal government over plural marriage—witnessed remarkable and often varying attempts to explore the implications of Joseph Smith's complex reframing of the relationship between the formal and the material (especially in the writings and teachings of Brigham Young and the Pratt brothers).[4] In the years of transition into the twentieth century, and especially as the so-called Progressive Era dawned, the balance between Mormonism's premodern and modern elements tipped in favor of the modern, and a more emphatically materialist Mormon theology emerged (especially visible in the writings of B. H. Roberts, James E. Talmage, and John A. Widtsoe).[5] As assimilation into American

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2. This is clear especially in the earliest and latest parts of the book: the writings of Nephi, son of Lehi, and the writings of Moroni, son of Mormon.

3. These teachings are most conspicuously on display in a few canonized texts, now sections 129–31 of the Doctrine and Covenants.

4. For examples of this speculative endeavor, see Brigham Young, in *Journal of Discourses,* 26 vols. (Liverpool: F. D. Richards, 1854–86), 1:46–53; and Orson Pratt, *Great First Cause, or the Self-Moving Forces of the Universe* (Liverpool: R. James, 1851).

5. The most representative works from this period are James E. Talmage, *The Articles of Faith: A Series of Lectures on the Principal Doctrines of The Church*

culture came to a kind of completion between the two world wars, the balance shifted largely in favor of the premodern, and a more distinctly spiritualist Mormon theology developed (made prominent especially by the writings of Joseph Fielding Smith and Bruce R. McConkie).[6]

Beginning in the 1960s and growing stronger in subsequent decades, theological speculation (largely undertaken by ecclesiastical leaders) was replaced by historical and textual study (largely undertaken by trained academics), with the result that the very question of the balance between modern and premodern elements in Mormonism's theological self-understanding largely retreated.[7] This last era has matured over the past decade or so with the rise of the academic discipline of Mormon studies, while theological questions have continued to be largely ignored. Theological reflection *has* begun to make a return, but it remains principally on the margins—the work of a few academically trained theologians hoping for an opportunity to speak to a broader audience than those in their own circles.[8] At any rate, recent theological reflection has begun again to turn its attention—perhaps more explicitly and directly than ever before—to the question of how the scriptures, presented by Joseph Smith to the world, might speak to the philosophical debates central to Western thought.

Deeply engaged with this reemergent theological conversation is Ralph Hancock, professor of political science at Brigham Young University. For anyone seriously committed to assessing the stakes of contemporary Mormon theology, Hancock's recent book, *The Responsibility of Reason,* is essential reading.[9] Although the book is written in

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of Jesus Christ of Latter-day Saints (Salt Lake City: Deseret News, 1899); and John A. Widtsoe, *Rational Theology as Taught by The Church of Jesus Christ of Latter-day Saints* (Salt Lake City: Deseret News, 1915).

6. The most important works to emerge from this era were unquestionably Joseph Fielding Smith, *Man, His Origin and Destiny* (Salt Lake City: Deseret Book, 1954); and Bruce R. McConkie, *Mormon Doctrine: A Compendium of the Gospel* (Salt Lake City: Bookcraft, 1958).

7. It is generally agreed that this era was launched by the publication of Leonard J. Arrington, *Great Basin Kingdom: An Economic History of the Latter-day Saints, 1830–1900* (Cambridge: Harvard University Press, 1958).

8. The most monumental theological work of recent years is Blake T. Ostler, *Exploring Mormon Thought*, 3 vols. (Salt Lake City: Greg Kofford Books, 2001–8). Announcing an important alternative approach to Mormon theology—which approach characterizes my own work as well—is James E. Faulconer, *Faith, Philosophy, Scripture* (Provo: Neal A. Maxwell Institute, 2010).

9. See Ralph C. Hancock, *The Responsibility of Reason: Theory and Practice in a Liberal-Democratic Age* (New York: Rowman and Littlefield, 2011).

a non-Mormon voice for a non-Mormon audience, it can speak quite directly to Latter-day Saints about relevant theological issues. It articulates in full rigor (1) the basic stakes of the philosophical question concerning the formal and the material and (2) Hancock's own crucial response to that question. In what follows, I both present a summary of Hancock's arguments in the book and engage with them critically in light of Mormon scripture and theology.

Reason's Responsibility

Hancock frames his approach to the question of theory and practice by considering the contrast between two often-compared experiments in modern democracy. For Hancock, the French Revolution and its aftermath were predicated on a rationalist extremism, that is, on a privileging of the theoretical over the practical. In this way, the French experiment distinguished itself from the American experiment, in which a certain balance between the theoretical and the practical was attained from the beginning. The emblems of these experiments are thus the French insistence on "absolute legislative sovereignty" and the American "doctrine of separation of powers."[10] According to Hancock, the French democratic project had as its principal aim an exclusively theoretical undertaking—"to address with full clarity the question of the essence of law"—while the American democratic project was grounded by attention to practical realities—hence the latter's preoccupation with "specific legal forms and limitations."[11] On Hancock's interpretation, this contrast suggests that the French project was built on a radical redefinition of what it means to be human, while the American project attempted nothing of the sort, effectively retaining the received Western conception of human nature. For Hancock, the latter move was by far the better, since "the human nature upon which the French founded their political theories was a nature stripped of all inherently social and transcendent dimensions."[12] Entirely divorced from practice and concrete material conditions, the merely formal or theoretical "man" of French democratic thought was ultimately without responsibility.

Guiding Hancock through his argument is Alexis de Tocqueville, whose observations in *Democracy in America* highlight the contrast just

10. Hancock, *Responsibility of Reason,* 12.
11. Hancock, *Responsibility of Reason,* 12.
12. Hancock, *Responsibility of Reason,* 13.

summarized.[13] Still more, though, Hancock draws from Tocqueville a further point of contention: that the *ultimate* consequence of every radical rationalism, every exaltation of the theoretical undertaken while ignoring the practical, is an ironic and perhaps paradoxical privileging of the material—albeit a privileging of the material as fully unformed and chaotic: brute nature.[14] In short, the idealism represented by the French Revolution amounted at the same time to the basest sort of materialism, with the consequence that its theoretical absolutism effectively undercut the value of theory itself.[15] The Tocquevillean solution to this problem was to give attention anew to the "laws of moral analogy," that is, to the startling fittedness of material realities with formal ideas.[16] In other words, the solution proposed by Tocqueville was to recognize that the apparent problems of the French experiment were rooted specifically in the rationalists' insistence on a strict divorce between the theoretical and the practical, in their insistence that there is no natural fittedness that at once distinguishes form from matter and yet allows form and matter to relate or interact. Wherever the formal and the material are taken to be fundamentally unrelated—form without material consequence, matter inherently unformed—form and matter end up being conflated in a disastrous way.

Hancock both complicates and clarifies the question of fittedness by revisiting Plato's allegory of the sun from book VI of *The Republic*.[17] Just as sunlight serves to fit objects in the world to human eyes, allowing eyes and objects to relate to one another, the form of the good fits the concepts and categories informing objects in the world to the individual intellect or mind, allowing mind and concepts to relate to one another. The good thus organizes a *primal* fittedness, one that exists between ideas and the mind—a fittedness necessary for the possibility of knowledge. On Hancock's account, however, this primal fittedness is insufficient for human knowledge, since human beings only encounter concepts and categories as they are incarnated in concrete material objects. Thus, according to Hancock, *the good* is inevitably experienced only indirectly, always in the form of derivative *goods,* emphatically in the plural.

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13. See Alexis de Tocqueville, *Democracy in America,* trans. George Lawrence (New York: HarperPerennial, 2000).

14. See Hancock, *Responsibility of Reason,* 33–34.

15. See Hancock, *Responsibility of Reason,* 39.

16. Hancock, *Responsibility of Reason,* 32.

17. For a standard translation, see John M. Cooper, ed., *Plato: Complete Works* (Indianapolis: Hackett Publishing, 1997), 1127–30.

Such goods are incarnations of the form of the good, just as worldly entities of various sorts are incarnations of relevant concepts and categories. Incarnations of the form of the good are, however, inherently distinct from other incarnations of formal concepts and categories, because the form of the good plays the unique role in the intelligible realm of fitting together disparate things (specifically, connecting concepts and categories with individual minds). Hence goods, incarnations of the form of the good, serve to fit together disparate things as well. Whereas the good itself fits together minds and concepts, concrete goods fit together the formal and the material, the theoretical and the practical.[18]

For Hancock, then, to avoid the problems bound up with the French democratic experiment—and to imitate appropriately the insight bound up with the American democratic experiment—it is necessary to recognize that there are knowable goods. Hancock explains: "The elusive cosmic good can be thought only as both other than and continuous with the goods a speaking, reasoning human being seeks to attain or preserve in the practical, political realm. To articulate this otherness and this continuity is to take theoretical and practical responsibility for what Tocqueville names 'moral analogy.'"[19] One must wonder at the fittedness between mind and concepts, and between the conceptual and the material—a knowable whole that bespeaks a fundamental, stable orderedness in things. As Hancock says, "the beginning of reason's responsibility is this reflexive awareness of wonder of the very possibility of knowing."[20]

The Form of the Good

In light of these Platonic developments of the basic Tocquevillean picture, it is possible to put a finer point on Hancock's purposes in *The Responsibility of Reason*. He argues that America's founders glimpsed, in both theory and practice, the real knowability of goods *as goods*—that is, the goods are points in material reality where matter marks its inextricability from form, where practice itself calls for theoretical reflection, where the real illustrates the ideal, and where the physical bears within itself a kind of ready intelligibility. Extreme rationalism of the sort that developed in the two centuries leading up to the French Revolution, on the other hand, conceives of material reality as inherently formless— manipulable for every rational purpose. For the rationalist, pure form

18. See Hancock, *Responsibility of Reason,* 60–63.
19. Hancock, *Responsibility of Reason,* 62.
20. Hancock, *Responsibility of Reason,* 60.

can only come into relation to pure matter through a kind of violent imposition, a technological employment of undifferentiated matter for strictly independent formal aims. For Hancock, such rationalism is not only extreme, but extremely dangerous. Ignoring the formal texture of the material world, reason without responsibility almost inevitably reshapes matter in a way that renders impotent the real forms that give it real texture.

But this is only the first moment in Hancock's argument. If he meant to argue only that the rationalist reduction of materiality to an undifferentiated store of manipulable stuff leads to existential disaster and a host of irresolvable philosophical puzzles, he would have merely reproduced his interpretation of the basic position taken by Martin Heidegger, the towering (and controversial) twentieth-century German thinker whose name still dominates European thought.[21] Instead Hancock takes Heidegger as one of his opponents, dedicating an entire chapter of *The Responsibility of Reason* to criticizing him.[22] Hancock's Heidegger fails to recognize the role played in fully formed practical reality by the form of the good. That is, if one must acknowledge that matter intrinsically bears within itself its own formal features, one does not yet confess that those formal features are organized according to a discernible moral map. In other words, to say that one must acknowledge that matter is ordered for experience by a set of concepts, one does not yet confess that organized matter amounts not simply to experienceable objects but also to real goods. Hence Hancock's verdict on Heidegger's project is that "he cannot articulate the goodness of his own activity, he cannot trace any connections between the activity of thought and the goodness of life."[23] According to Hancock, on the other hand, it is necessary to recognize both that the world of concrete practices bears within itself a set of organizing forms *and* that those organizing forms are in turn organized by the good, such that the material world bears a moral topography.

For this reason, Hancock sets himself up as an opponent of modernity (as I have defined it above). The first moment of his argument has a kind of modern cast, or at least an echo in the work of the most important materialist thinkers. The sorts of materialism that took their rise in

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21. No one of Heidegger's many books and essays captures his thought, but a helpful collection of relevant excerpts and essays has been published as Martin Heidegger, *Basic Writings,* ed. David Farrell Krell (New York: HarperCollins, 1993).

22. See Hancock, *Responsibility of Reason,* 115–76.

23. Hancock, *Responsibility of Reason,* 152.

the nineteenth century and have grown only stronger and more sophisticated since—all of them definitively modern—have worked tirelessly to establish a concrete reality that is anything but an undifferentiated mass of manipulable material. This is especially clear in the writings of the two most influential nineteenth-century materialists, Charles Darwin and Karl Marx, each of whom argued in his own way that nothing external to matter need be imposed on it to produce the variety of forms characteristic of it in human experience.[24] Whatever might in the first moment of Hancock's argument appear to side with modern materialism is undercut in crucial ways in the second moment. In his view, although much of nineteenth- and twentieth-century thought has recognized *certain* fundamental problems in extreme rationalism, it has failed to recognize *other* fundamental problems in rationalism, and it has therefore perpetuated some of the more egregious elements of that supposedly defunct worldview.

According to Hancock, then, modern materialists recognize that it was a rationalist mistake to evacuate the formal from the material, leaving the latter void of any formal content; nonetheless, they follow the rationalists in evacuating the moral from the material, leaving the inherently formed material world bereft of its inherent moral topography. Because he makes *this* critique of recent materialisms, Hancock sets himself up as a direct opponent of modernity. Indeed, the manner in which he traces his own project to Plato's allegory of the sun aligns him closely with the premodern conception of a morally ordered cosmos. By granting the form of the good both existence and sovereignty, Hancock directly contests the modern materialist predilection for ontological pluralism. The morally ordered cosmos for which Hancock contends is a unity, total and consistent. In philosophical terms, he operates within an ontology of the one. His reasoning, presumably, is that only such an ontology can allow for a robust conception of morality. Ultimately, it would have to be said that Hancock accuses a thinker like Heidegger of being unable to articulate a conception of the goodness of life because Heidegger is an ontological pluralist. For Hancock, a pluralistic ontology simply *cannot* adequately ground a moral topography. If morality is to be salvaged, it is necessary to espouse a host of essentially premodern commitments.

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24. See Charles Darwin, *The Origin of Species* (New York: Signet Classics, 2003); and Karl Marx, *Capital, Volume One*, trans. Ben Fowkes (New York: Vintage, 1977).

The Idea of the True

There is much to be admired in Hancock's argument, which is obviously worked out at greater length and in more rigor than I can reproduce in this brief essay. In chapters I have not mentioned, Hancock provides illuminating engagements with a host of thinkers, ranging from John Calvin and Martin Luther to John Rawls and Charles Taylor. Of special interest to those invested in political theory is a prolonged and extremely nuanced critique of Leo Strauss.[25] And even within the chapters to which I have given more direct attention here, Hancock provides a crucial sketch of what remains the central problem of Western thought—the problem of the relation between the formal and the material.

What is more, he simultaneously provides a sketch of at least three positions generally assumed with respect to that problem, more often implicitly or even unconsciously than explicitly or deliberately. He clarifies in helpful ways the nature of and the deep problems inherent in the rationalist position—ascendant during the seventeenth and eighteenth centuries and arguably reemergent in important and startlingly popular ways in recent decades (under the guise of "postmodernism"). He also convincingly argues that there are salient and troubling points of continuity between rationalism and the prevailing forms of materialism that have dominated Western thought for the past two centuries. Finally, he sketches the outlines of a revitalized pre- or nonmodern conception of a consistent morally ordered cosmos. All of this, I think, is done quite well.

I would nonetheless like to conclude this essay by raising a point of criticism. In the course of his arguments, Hancock seems never to envisage the possibility of a *fourth* position: one that recognizes with Hancock (and therefore against both rationalism and materialism of a certain stripe) the need for a certain moral ordering of the material world, but one that at the same time explores the possibility that such a moral ordering need not be predicated on premodern ontological commitments.

To put the point more polemically, Hancock seems to assume that it is impossible for a pluralist ontology to provide an adequate account of the good, but there is good reason to question that assumption. He is right that rationalism cannot provide an adequate account of the good (reducing goodness to a kind of abstract justice, an impracticable ideal,

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25. See Hancock, *Responsibility of Reason*, 177–252.

ultimately realized only in the elimination of every conceptual distinction). He is right that certain materialisms never even attempt to provide an account of the good (either presuming that morality is always an ideological affair or reproducing an essentially rationalist and therefore inadequate account). But he is perhaps mistaken to assume that because *certain* materialists (in particular, Heidegger) do not produce an account of the goodness of life, *all* materialisms cannot account for the moral fabric of the world.[26] Indeed, at the very least, Mormonism itself is a materialism that can account for the moral fabric of the world, ontologically modern and yet fully committed to a world in which the God of premodern times remains operative.

By so directly contesting modernity, Hancock seems motivated first and foremost by the notion that the moral order is *total* and *consistent*. I find this an undesirable commitment for at least two reasons. First, Mormonism itself seems committed to the idea that the moral order is in fact inconsistent (but it should be made clear that inconsistency does not in any way imply relativism). There are too many instances in Mormon scripture of God reserving for himself the right to make exceptions, and Joseph Smith himself insisted that God will command one thing in certain circumstances but the opposite in other circumstances.[27] The desire to secure an absolutely consistent moral order seems out of line with a Mormon cosmology that speaks of unorganized matter and intelligent beings that reject God's will. I do not mean here, however, to implicate Mormons who believe that God himself *is* the perfect moral order, but only to remind them that *other* materialist commitments exist, and from these commitments arise interpretations that make room for inconsistency.

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26. Philosophers more dedicated to Heidegger than I am would likely disagree with important points of the interpretation set forth in *The Responsibility of Reason*. There is a growing literature on the possibility of finding a robust ethics—and hence a robust conception of the good—in Heidegger's thought. It would be fruitful to see the particulars of Hancock's interpretation engaged by a defender of the Heideggerian project.

27. The most exemplary passages from both Mormon scripture and the teachings of Joseph Smith concern, somewhat uncomfortably, plural marriage. They are, nonetheless, crucial passages that have played a crucial role in the development of Mormonism's ethics. See, on the one hand, Jacob 2:29–30 and, on the other hand, Joseph Smith Jr., *History of The Church of Jesus Christ of Latter-day Saints*, ed. B. H. Roberts, 2d ed. rev., 7 vols. (Salt Lake City: Deseret Book, 1971), 5:134–36.

Second, one of the great discoveries of twentieth-century thought—and this discovery has deeply informed the most interesting material-isms of the past five decades or so—is the effective impossibility that any genuinely complex system can be at once complete (or total) and consistent.[28] Consistency is local and contrived, the product of careful construction that succeeds only because it leaves out of account what would reveal points of inconsistency. Thus, for reasons both of faith and of knowledge, it seems best to forge ahead in search of a way to conceive of the world as having an inherent moral ordering, but in a way that does not ultimately rest on coupling the totality of the world with its (supposed) consistency.

Is it possible to conceive of such a thing? I believe it is. In order to sketch its possibility, I will draw on the recent philosophy of Alain Badiou, a thinker who has played an important role in one circle of con-temporary Mormon theologians (among whom I find my own place; Adam Miller was unmistakably the first Mormon theologian to draw seriously on Badiou's work).[29] Actually, Badiou is perhaps especially appropriate to use here, since he has recently produced what he calls a "hyper-translation" of Plato's *Republic*—a modernization of the book and a reconfiguration of some of its key positions, undertaken none-theless as a translation of the original Greek text.[30] In his reworking of Plato's allegory of the sun, Badiou retranslates Plato's *agathon,* "good," as *vérité,* "truth."

Thus, in Badiou's *Republic,* what governs the realm of the forms (and thereby establishes the possibility of real relations between the formal and the material) is not the form of the good, but the idea of the true—Truth with a capital T. Badiou therefore discerns among those forms intrinsi-cally assumed by matter in the world of experience not as *goods* but *truths.* Thus, rather than recommending the pursuit of a moral order governed

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28. See Kurt Gödel, "Some Metamathematical Results on Completeness and Consistency," "On Formally Undecidable Propositions of *Principia Math-ematica* and Related Systems I," and "On Completeness and Consistency," in *From Frege to Gödel: A Source Book in Mathematical Logic, 1879–1931,* ed. Jean van Heijenoort (Cambridge: Harvard University Press, 1967), 592–617.

29. See Adam Miller, *Badiou, Marion, and St Paul: Immanent Grace* (New York: Continuum, 2008). I have drawn on Badiou's work for Mormon theologi-cal purposes in an essay published in this journal; see Joseph M. Spencer, "The Four Discourses of Mormonism," *BYU Studies* 50, no. 1 (2011): 4–24.

30. See Alain Badiou, *Plato's "Republic": A Dialogue in 16 Chapters,* trans. Susan Spitzer (New York: Columbia University Press, 2012).

by inherently discernible goods, Badiou's *Republic* recommends the pursuit of an ethics of truths—an ethics predicated on an account of being that (as with Heidegger) posits its inherent multiplicity and resists the idea that the moral order of the world is consistent or forms a ready unity. Of course, Badiou employs language that might seem to distance himself from religious thought. The lexicon of Mormonism is unmistakably saturated with words like *good* and *moral.* Certainly, it might sound a bit strange in a Mormon setting to argue that truth somehow transcends goodness—despite Joseph Smith's claim that "Mormonism is truth."[31]

Aside from these expected differences, I find most of this Badiouian picture more convincing—and more consonant with the Restoration—than a revitalized premodern conception of a unified and consistent cosmos. Of course, what makes Badiou's account convincing is the complicated philosophical machinery he has deployed in his writings: a detailed account of the multiplicity of being, a provocative investigation of how being is interrupted by occasional revelatory events, a robust theory of what it means to demonstrate real faithfulness to such events, and a rigorous formalization of the strict invariance of the truths revealed through such faithfulness.[32]

Obviously, I lack the space here to provide even a cursory overview of Badiou's project and its relevance to Mormon theology. While Badiou's account of things is not populated with any traditional conception of God, his framework remains and thus provides an important way to flesh out Mormonism's double commitment: to a strictly materialist metaphysics and to a strictly biblical faith.[33] Since Badiou is not unique in having provided what might be called a *fourth* possible position eclipsed in Hancock's book, there is no need to give attention exclusively to Badiou on this score. He serves here only as one example of the sort of account that might be provided to break the deadlock between the modern and the premodern, and in a way that looks startlingly like it would serve Mormonism well.

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31. Joseph Smith to Isaac Galland, March 22, 1839, *Times and Seasons* 1, no. 4 (February 1840): 53–54.

32. See especially Alain Badiou, *Being and Event,* trans. Oliver Feltham (New York: Continuum, 2007); and Alain Badiou, *Logics of Worlds: Being and Event II,* trans. Alberto Toscano (New York: Continuum, 2009).

33. Although Badiou is himself an atheist, he has been forthcoming about the religious relevance of his work. See Alain Badiou, *Saint Paul: The Foundation of Universalism,* trans. Ray Brassier (Stanford: Stanford University Press, 2003).

In the end, Hancock has productively and successively provided an account of the basic stakes of what remains the central question of Western thought. In my view, however, he has not provided a full account of the possible positions one might assume with respect to that question. As a result, his defense of a very premodern conception of the world, mobilized by an attempt to reveal real problems in certain modern conceptions of the world, proves to be limiting. The Restoration not only took its rise in the modern world, but it also unmistakably positions itself as a proponent of materialism in some form. To understand what Mormonism has to say in the history of thought, it will be necessary to decide how to conceive of a materialism that nonetheless affirms (whether within consistent or inconsistent realms) the existence of a moral order.

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Jade Cabbage

Wrapped in rawness
cracked, mottled, refuse
from the mines.

But knowing hands
feel deep its form
and sculpt new lines.

Rising from the rigid point
and settling dust
the once dull shines.

—Daniel Marriott

Life Revised

Martha A. Parker

I was nineteen, scared and alone, and in an ER for the first time when a nurse suggested that I might have multiple sclerosis (MS). She then proceeded to stick me with an IV of steroids to combat the inflammation in my eye, the apparent cause of my partial blindness. It was my first time in a hospital, my first time in an MRI tube, and my first time getting an IV. Saying I was scared is an understatement. I flew home to Utah (I was working for Disney World in Florida at the time) and was diagnosed with MS shortly thereafter.

Happily, I did not go completely blind, and my eye healed after several weeks, but I am not ashamed to say that I spent several years in denial that I had a debilitating disease. After a time, I found the right doctor and right medication. It worked for about four years. During that time, I never had another exacerbation (an MS version of an attack). Life was grand. I sang and danced and walked and talked and jumped and did everything a person with a regular body could do.

Then the unthinkable happened. In February 2012, I started to notice a change in my ability to walk. In April 2012, I could walk only with somebody to lean on. (I had fallen four times at home when I was left alone.) I like to say I walked like a drunk person. I've never been drunk, so I don't know for sure, but there was a lot of staggering involved. By May 2012, I had lost all ability to walk and moved back to my parents' house. I had several MRIs, and the doctors could find nothing wrong with me, but something was very wrong, and I knew it. On July 31, my doctor discovered that I was one of only 350 out of 110,000 people currently taking Tysabri worldwide who had developed a condition called Progressive

Multifocal Leukoencephalopathy (PML), a brain infection. My cerebellum (the powerhouse in your brain for all things balance related) was slowly being eaten alive. Of those 350 people, only 15 percent had survived.

I entered the hospital, blissfully unaware of what would happen to me there. I had heard of plasmapheresis before, but I didn't know it would require a PICC line in my aorta. A PICC line is simply a tube doctors stick in a vein that allows them to pump blood out of your body. The PICC line in my neck was supposed to allow them to filter the blood contaminated with Tysabri to clear the drug out of my system.

The picture plasmapheresis painted of me was not pretty. I couldn't eat by myself. I couldn't walk. I had no focus, so I couldn't read, and watching TV gave me a headache. My muscles moved in weird and unexpected ways. I flailed around so badly that I had to be seat-belted into my wheelchair and strapped to the toilet so I wouldn't fall onto the cold tile floor. I had a catheter, an IV, and leg cuffs that inflated and deflated to keep my blood circulating. They call this lack of coordination *ataxia,* which is just the scientific way of saying no muscle control.

I felt like a marionette with some unknown puppeteer pulling the strings that would make my arms, legs, and head move. "Let's make her head loll back and forth like a chicken." "Pull," said the puppeteer. "Let's make her clock herself in the face with her fist every time she tries to raise her arm." "Pull," said the puppeteer. "Let's make her legs spaz out in all directions whenever she tries to stand." "Pull," said the puppeteer. My attempt at controlling my hands and feet was to name them and call upon them whenever I wanted to move. I christened my feet Ralph and Wanda, and my hands Phoebe and Phil. I don't know if that worked very well, but it did make my life far more entertaining.

I should have been dead. Two or three times, I wished I was. All my doctors expected me to die. Who could blame them, since every other PML patient they had seen had ended up in the morgue? That just seemed easier; I had no husband or kids to worry about, and it seemed at the time that I was causing my family pain. If I died, I would walk again and dance and sing. This seemed like the better existence, but I didn't die, and I think I know why.

People around the world and of different religious backgrounds were praying for me and uniting in the spirit of fasting. My dad and brothers and even my cousins had all given me priesthood blessings. The blessings said nothing about healing from my troubles, but they gave me peace, comfort, and patience enough to wait on the Lord's timetable.

My circumstances allowed me to serve in ridiculously unexpected ways. My therapists served me most of the time, but I served them by

having a good attitude. My mom served me by coming up to the hospital on a daily basis, but I served her by smiling and holding her hand. I always thought giving service meant I was doing something for someone else. Many people served me, but I could also find a way to serve them. It was a two-way street that I had forgotten existed.

"Faith is knowing the Lord will hear my prayers each time I pray."[1] I sang those words in Primary. I sang them growing up. I probably now sing them as an adult. Those words haunted me during my hospital stay. I prayed. I prayed every day. Healing was still elusive. All of my life I had been taught about spiritual gifts. One stood out at this time, more than any others. And that was faith to be healed. There was only one explanation. I didn't like it, but it was the only conclusion I could fathom. I must not have had sufficient faith for healing to happen. This thought depressed me more than any other thought I had had in my life. The days during plasmapheresis were tedious and usually long. There was little anyone else could do to lift my spirits. Then about halfway through my hospital stay, I thought of Jesus Christ and Joseph Smith. They certainly had faith, but their troubles didn't disappear. Not that I am equating my struggles with their struggles, but just maybe they shared a spiritual gift with me and countless others. We had faith not to be healed, or said another way, when we were not healed, we could still have faith. Faith is not dependent on circumstances. I had to learn that the hard way, but at least I learned it.

I surprised everyone by continuing to live. After six weeks in the hospital, I moved to a rehab center. I thought I knew what to expect. I thought I had had enough physical therapists (by that time I'd had four) to know what to expect in therapy. I was wrong. I tried to sing songs with my speech therapist each day to work on my pitch and endurance. I certainly didn't expect that. Occupational therapy had me do word searches and make salsa. That was unexpected. The most unexpected thing was in PT. They had a gym that rivaled the hospital's any day. My physical therapist had me walking up stairs, riding every bike imaginable, and squatting on a piece of gym equipment.

The most fantastic and unexpected machine ever was the antigravity treadmill. You put on a pair of super snazzy shorts, and they zipped you into the machine. It then blew up like a balloon. The therapist could control how much of your own body weight you felt and how fast the treadmill moved. That allowed me to walk relatively unassisted. From my

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1. Beatrice Goff Jackson, "Faith," *Children's Songbook* (Salt Lake City: Deseret Book, 1991), no. 96.

new vantage point, I could see the outside world through the windows and, drum roll please . . . the parallel bars. They never stopped haunting me, even when I left the hospital. I wanted to walk between them, but I was scared to death that my hips would attack the sides like they had once before. Such a thing would not only mean I had failed in my endeavor, but it would also confirm my suspicions that I had not improved at all. I looked at the parallel bars and continued to walk on the antigravity treadmill.

On my last day of therapy, I finally built up enough courage to ask my PT if I could attempt to walk in the parallel bars. He said, "Why not?" and what was once a dream became a reality. It became a reality in a big way. I walked without crashing my hips from beginning to end. I even walked backwards. It was the finest moment of my rehab experience.

Plasmapheresis left me unable to talk. I could make my desires known more or less, but speaking in long sentences of any kind made me pant for air. Singing, once the love of my life, wasn't even on my radar. One day, a friend visited me and insisted that squawk or not, I could sing, and she wrote on my hospital daily goal board that I had to sing at least ten songs a day. My voice teacher also visited me in the hospital. She insisted that I sing any song I like. I had a hard time believing both of them. I could hear me. My mouth and throat couldn't form the words or pitches that I heard in my head. Some days I would sing to myself, but mostly I would just give up.

When darkness masked the night sky and the world was alight with stars, when the moon was shining brightly across the earth and I heard quiet footsteps of nurses and CNAs in the hallway, only then was I completely alone. I could snuggle in my blankets and feel the gentle breeze from the ceiling fan on my face. The dark of the night was the only time when I didn't have to have someone next to me (and considering I face-planted on my living room floor, that is probably a good thing). In the sweet silence of the night, sometimes I could forget that my legs didn't work and that my hands would never be still. I could forget that my hair was gone, that my eyes couldn't focus. For a moment, I could be "normal" again. And I was singing. I was dancing, and jumping, and walking. But then the darkness would cast another spell, and I would fall asleep and wake up with legs that didn't work and hands that would never be still. And I would have to wait through another day before I could feel free again.

None of us are really what we appear to be in the mortal frame. I am as guilty as the next person when it comes to judging people with a disability of some kind. I am ashamed to say I probably made judgments on their intellect and their abilities and their contribution to the world and their families. Now I can't stand it when people assume I am a certain way because I am in

a wheelchair. I hate it when they think I am stupid or don't have an opinion. What goes around comes around, I guess. I sure as heck plan on never judging others again.

After many days of rehab and after about a hundred grilled cheese sandwiches and so many hours in my wheelchair, I finally got to go home. "Home is where the heart is," and don't I know it! I could sleep in my own bed, associate with my own family, and eat my mom's home-cooked meals. Coming home was the best medicine I could possibly have asked for.

Under Medicaid, I was allowed to have occupational and physical therapists come to my home for a preapproved number of visits (I guess speech therapy had gone the way of the dodo). These were not the same therapists I had in the rehab center, but I loved these guys all the same. I remember the day when I stood up on my own with my new OT. It was surreal and kind of scary, but I stood as long as I could. When the therapist finally departed, I may have collapsed in a puddle of tears while my friend danced around the room like a crazy lunatic. It had been close to a year since I had stood up by myself. It was a very happy day.

The approved number of visits came and went. I was left without a therapist in my pursuit of regaining my abilities. I am my own therapist now. I have weights that someone else can strap to my hands or feet. I have a recumbent exercise bike, and I have a special treadmill. I use them as often as I can. It's not as good as the PT, but it's as good as I can do on my own.

I mourn my femininity. My curling iron is gathering dust. So are my hot rollers, my straightener, and my hair dryer. Even if I could wield a curling iron now, it would be beside the point because my hair is not long enough to curl anyway. My clothes are gone, sold. My sister planned three yard sales so that I could make enough money to keep credit card companies or the collection agency of their choice from calling.

I think snakes shed their skins a few times while they're alive. In some ways, I feel like I'm shedding a skin. I'm not the girl I used to be, I'm somebody different. Maybe it's a good thing, and I'm version 2.0. Good or bad, I just feel different. My hobbies have changed. How I spend my time has changed. What I wear has changed. I may still be the girl I once was on the inside, but there is so much that is different now.

Everyone I know hates this analogy, but I'll say it nonetheless. A swan's feather on an ugly duckling doesn't do much good. It's still an ugly duckling. I am an ugly duckling now—at least it feels that way with my cropped haircut and lack of anything remotely feminine.

My niece watches intently as her mom takes care of me. Then she insists on trying to help. She'll hold up my water bottle so I can take a

drink. She tries to put my shoes on when I'm not wearing them, and if we're ever putting weights on my feet or my arms, she either helps or puts weights on herself so she can be like her auntie. She reminds her mom when it's time for lunch and makes sure that I am wearing a bib to match her own. She also pushes my wheelchair. My nephew does that too, so I guess he's a nursemaid as well. Have I mentioned that my niece and nephew are two and three years old? I thought I should mention that vital piece of information. I'm being babysat by babies.

On a Wednesday in October 2013, I went to the temple with my sister. During the course of the night, she had me hold the car keys. These weren't just any car keys; they were *my* car keys—once upon a time, when I could drive. I hadn't held my keys for probably a year and a half. Needless to say, I started bawling. But it wasn't just the keys. It was everything the keys represented. If I had car keys, that meant I had a job to go to, and I made enough money to have a car, and pay rent, and live on my own. They represented everything I thought I had lost, and I wasn't getting it back anytime soon.

I had lost many things. They seemed so irreplaceable at the time. But what had I gained? I gained perspective on life, compassion, increased love, better relationships with my family, better relationships with my nephew and niece, and a personal drive to get better unlike anything I had ever seen in myself before. I gained much more than I thought I had lost.

My future is hazy at best. I don't know what will happen to me or how long I'll live or what abilities, if any, I will regain. I'm full of questions, and nobody on this earth seems to have the answers. But I have a confession: I make my own answers. My hazy future will include hours on my exercise bike, lots of listening to books on tape, lots of singing along with CDs, and lots of attempts to walk.

I could choose to be angry or bitter or helpless. Pathways fork in every direction, but I don't like where those paths lead. What does my future hold? I don't know, but I will write new editions every day and include them in my book of life. Sure, some pages will have angry outbursts or heaving sobs, but I hope even more have stories about my niece and nephew and about me defying odds. As for me, I will choose how my story in the book of life is written instead of having someone write it for me.

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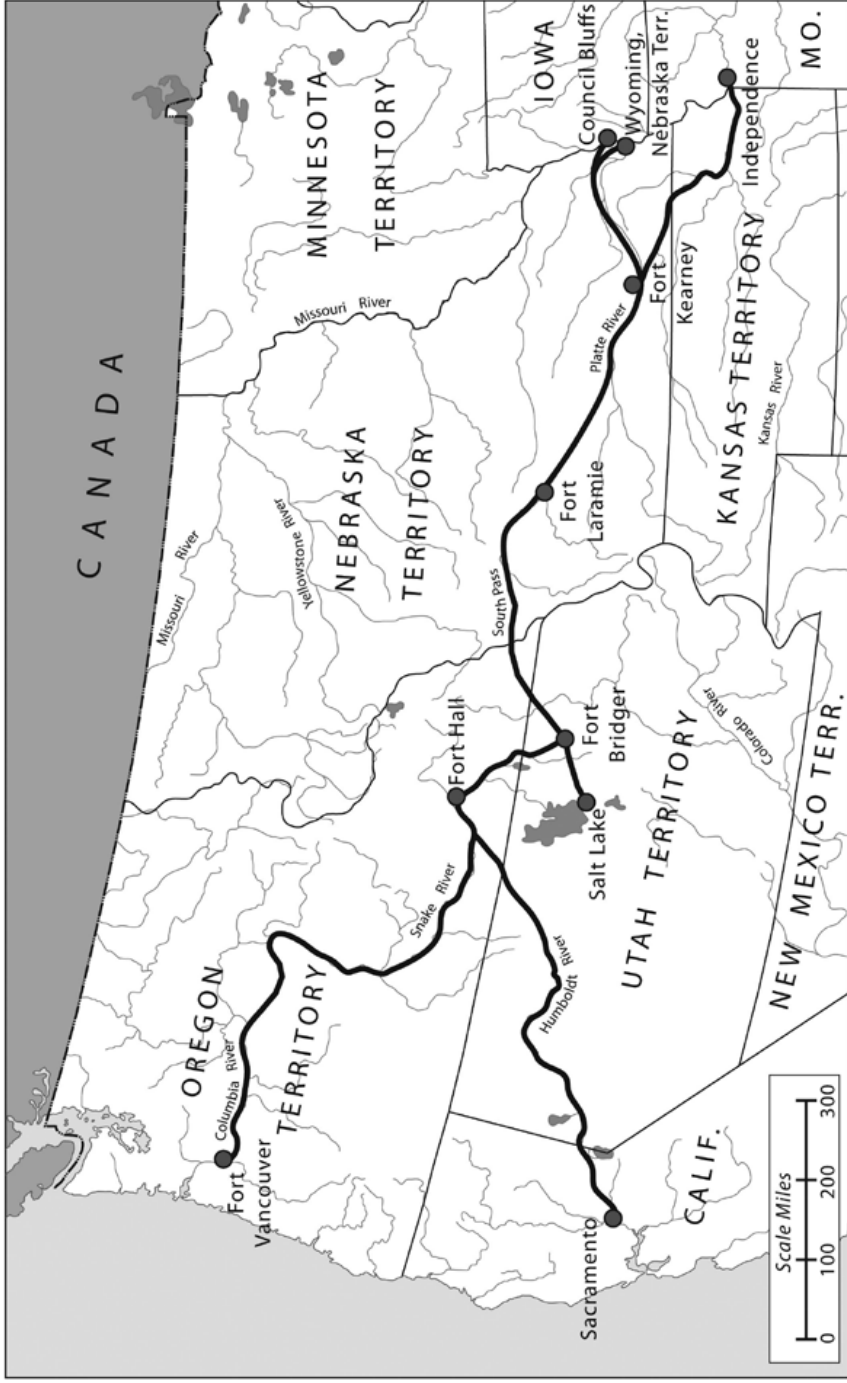
Violence and Disruptive Behavior on the Difficult Trail to Utah, 1847–1868

David L. Clark

Few if any converts to Mormonism during the mid-nineteenth century were adequately prepared for the challenge of traveling to their Zion. Most European members and many American converts had never traveled more than a few miles from their homes. European converts, after sailing across the Atlantic Ocean and traveling almost a thousand miles to staging areas in Iowa City or on the Missouri River, had to walk or ride in wooden wagons or pull handcarts another thousand miles over crude trails or, in some cases, no trail. Most American converts also had to travel long distances to get to an outfitting post. Difficulties during the final thousand miles of travel were enhanced by the anxiety of locating adequate feed for cattle and finding good water and fuel for cooking. In addition, provisions of every necessity were generally in short supply. It is easy to understand that to many, the West consisted of "trackless deserts, impassable mountains, bloodthirsty Indians and savage wild beasts—all of which the courageous little bands of overlanders had to conquer singlehandedly."[1]

A well-adjusted nineteenth-century individual could, with some effort, successfully cope with the challenge of overland travel. However, conditions on the trail were different from anything most of the travelers had experienced, and these conditions tested the basic character of each individual. This paper focuses on one result, disruptive behavior including violence, by individuals both within and external to some

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1. John D. Unruh, *The Plains Across: The Overland Emigrants and the Trans-Mississippi West, 1840–60* (Urbana: University of Illinois Press, 1993), 385.

Much of the trail to Utah, California, and Oregon was the same for all travelers in the mid-1800s. Illustration by B. J. Kowallis, showing the main routes.

of the companies. The topic of violence and disruptive behavior on the Mormon trail has not been adequately studied. Western American trail history got a boost in 1979 when John Unruh published *The Plains Across,* which was arguably the first book to provide an overall history of migration across the American West from 1840 to 1860. In 1980, John Phillip Reid published *Law for the Elephant: Property and Social Behavior on the Overland Trail* and then in 1997 published *Policing the Elephant: Crime, Punishment, and Social Behavior on the Overland Trail.*[2] These books mention that contemporary reports of violence on the trail attributed much violence to the Mormons.[3] Mormons were thought to organize into bands that preyed upon emigrants on trails to Oregon or California, especially stealing stock.[4]

It is worth trying to determine if Mormons actually had higher rates of violence while on the westward trail than non-Mormons by looking at Mormon documents. Because Mormons made up about 70,000 of the estimated 300,000 people who crossed the plains from the 1840s to 1860s, their experience specifically regarding violence deserves study.

Data regarding the occurrence of violence on the trail necessarily relies on reports recorded in company histories and personal journals. Approximately three hundred digitized diaries, reminiscences, and interviews archived in the LDS Church History Library of those who traveled to Utah between 1847 and 1869 were searched for keywords (*violence, fight, whip, shoot, murder,* and so on). Some twenty instances of violence, certainly not all of those that occurred, were added to several

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2. Unruh, *Plains Across;* John Phillip Reid, *Law for the Elephant: Property and Social Behavior on the Overland Trail* (San Marino, Calif.: Henry E. Huntington Library, 1980); John Phillip Reid, *Policing the Elephant: Crime, Punishment, and Social Behavior on the Overland Trail* (San Marino, Calif.: Henry E. Huntington Library and Art Library, 1997).

3. Reid, *Policing the Elephant,* 50–52.

4. The Mountain Meadows Massacre in 1857 certainly reinforced the perception of Mormons as violent. The massacre is not included in this study because it did not occur among Mormons on the trail to Utah. Historians generally say the causes of the massacre include high tension, zealotry, and fear caused by the Utah War; alleged violence and threats perpetrated on the Utah settlers by the Fancher-Baker company; and alleged connections of Fancher-Baker company members to the death of Parley P. Pratt. Some Mormons at the time placed blame solely on Indians, but recent scholarship acknowledges that Mormons played the lead role.

published and unpublished records of trail violence for this article.[5] These reports are certainly not a complete record of the violence that occurred but still give us a good idea. This study compares incidents of bad behavior and violence recorded in a sample of immigrant journals and reminiscences among Mormons going to Utah with the records of gold-seeking '49ers and those traveling to the Oregon Territory at about the same time and suggests that violence was much more common and more severe among those traveling to California and Oregon than it was for Utah-bound pioneers. Among Utah wagon companies, violence ranged from whippings to verbal abuse, with whippings being the most severe form of violence, while murder was surprisingly common among those traveling to California and Oregon.

What follows is not a philosophical discussion of man's proclivity for violence along Western trails in the mid-nineteenth century, but a documentation of disruptive behavior, including violence, among those traveling the Utah Trail and a brief comparison of these Utah Trail experiences with published accounts of violence among those traveling to California and Oregon. Possible reasons for the different experiences are suggested.

Rules and Regulations for Wagon Travel

Were there rules and regulations for the various wagon companies, and, if so, were there any that addressed problems of human behavior? And because both those going to Utah as well as those going to California and Oregon traveled along much of the same trail, were there different trail conditions that contributed to diverse antisocial behavior among the different travelers, or were the different incidents related to other factors?

Apparently, many of those traveling the Oregon and California trails did so with rules.[6] However, even the best conceived set of rules and regulations could not prevent all forms of misbehavior. Unruh reports, "A high percentage of gold seekers had formally organized into companies—complete with constitutions, bylaws, officers, and, most problematic for what transpired, jointly owned property. When the vagaries of human nature prevailed and the companies disintegrated in bickering and frustration—as most of them did—an equitable distribution of

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5. The three hundred documents I searched are a good sample of records. I invite further research into this topic using the newly available keyword search at the Mormon Pioneer Overland Travel database at http://history.lds .org/overlandtravels/home.

6. Unruh, *Plains Across,* 387.

property was mandatory."[7] Addressing problems of crime and punishment along the Oregon and California '49ers trail, Reid observed, "During the early years of the overland emigration, companies frequently wrote constitutions and adopted bylaws before they started out on the trail. The practice was largely discontinued after the 1850 emigration. By then most emigrants knew that few companies would remain united and rules could be made ad hoc to deal with problems as they arose."[8] Whether or not enforced rules would have made a difference, there were many murders on the Oregon and California trails: a doctor traveling from Indiana to Oregon in 1852 reported that on the overland trail there were "not less than 50" murders that year, as well as a large number of executions of murderers.[9] The year 1852 was the peak year of western wagon travel and may have been the time of the largest number of homicides and executions of the guilty occurring during any of the emigration years, but violence was common almost every year.

Similarly, for many of the Mormon pioneer companies traveling to their new Zion in the mid-nineteenth century, there were rules and regulations. These rules were tailored to the nuts and bolts of wagon travel such as time to begin daily activity, time to pray, how to handle guns, placement of wagons at night, and other specific procedural rules.

For the first company of Mormon western travelers, a written constitution was not really necessary because Brigham Young, the leader, headed the group and he was the law. When this first company to travel to Utah was organized, "It was moved & carryed that B[righam]. Young be General & Commander in Chief of the expedition."[10] At the beginning of the vanguard's trek, Brigham Young outlined rules of the camp in a short lecture emphasizing "vigalent holy & righteous" behavior and the need to pray continually.[11] On the first Sunday in camp, an official

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7. Unruh, *Plains Across,* 313.

8. Reid, *Policing the Elephant,* 103.

9. Reid is more cautious: "Whether the total even came close to fifty killings is, at best, a guess." Thomas White, "Oregon Letter," cited in Reid, *Policing the Elephant,* 76–77. Chapter 6 of *Policing the Elephant* (73–90) records accounts of murders and executions of murderers between 1849 and 1859.

10. Ronald O. Barney, ed., *The Mormon Vanguard Brigade of 1847: Norton Jacob's Record* (Logan: Utah State University Press, 2005), 106.

11. Barney, *Mormon Vanguard Brigade,* 103. Barney argues that while Brigham Young's leadership was pronounced, as evidenced by his late May criticism of the company for "idleness, card playing, and practical jokes," even when he was ill "there was hardly a pause in the voyage's momentum."

set of nine rules for the camp was formulated, but these rules were primarily concerned with camp logistics, not with disruptive behavior.[12]

1. After this date the horn or bugel shall be blown every morning at 5 a.m., when every man is expected to arise and pray: then attend to his team, get breakfast and have everything finished so that the camp may start by 7 o'clock.

2. Each extra man is to travel on the off side of the team with his gun on his shoulder, loaded, and each driver have his gun so placed that he can lay hold of it at a moment's warning. Every man must have a piece of leather over the nipple of his gun, or if it is a flintlock, in the pan, having caps and powder-flask ready.

3. The brethren will halt for an hour about noon, and they must have their dinner ready cooked so as not to detain the camp for cooking.

4. When the camp halts for the night, wagons are to be drawn in a circle, and the horses to be all secured inside the circle when necessary.

5. The horn will blow at 8:30 p.m., when every man must return to his wagon and pray, except the night guard, and be in bed by 9 o'clock, at which time all fires must be put out.

6. The camp is to travel in close order, and no man to leave the camp twenty rods without orders, from the Captain.

7. Every man is to put as much interest in taking care of his brother's cattle, in preserving them, as he would his own, and no man will be indulged in idleness.

8. Every man is to have his gun and pistol in perfect order.

9. Let all start and keep together, and let the cannon bring up the rear, and the company guard to attend it, traveling along with the gun, and see that nothing is left behind at each stopping place.[13]

Evidently, these rules were followed with little disagreement. On several occasions during the initial trek to what would be Utah, Young censured individuals for what appear to be minor deviations from his rules. And the record of violence in the vanguard company was minor.[14]

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12. Barney, *Mormon Vanguard Brigade,* 107 n. 53. For more on the vanguard company rules, see Thomas Bullock, Journals 1843–49, 4:13, 29, Church History Library, The Church of Jesus Christ of Latter-day Saints, Salt Lake City (hereafter cited as CHL), available online at http://history.lds.org/overlandtravels/trail ExcerptMulti?lang=eng&companyId=1&sourceId=4398.

13. Young, *Manuscript History,* 1846–47, 550, and Egan, *Pioneering*, 23–24, cited in Barney, *Mormon Vanguard Brigade,* 107.

14. Bullock, Journals 1843–49, 4:29. Barney, *Mormon Vanguard Brigade,* 125, 129, 151, 172, 182, are all examples of censure. In a humorous handling of

There were different rules for different Mormon companies. While on the trail, an 1854 LDS company adopted a company of Church members from Kansas, and the new group was immediately given rules and regulations and warned to obey.[15]

For some companies, there were formal written rules sustained by the company before travel began, such as these in 1853:

> 1st The camp will be called together at the Sound of the Trumpet morning and evening for public prayers When a General attendance is expected except those whose Camp duties require them to be absent.
>
> 2nd No Card playing will be allowed in Camp.
>
> 3rd No Profane Swearing will [be] tolerated.
>
> 4th Those owning Dogs will be required to keep them tied up during the night.
>
> 5th No noise or Confusion will be allowedd in Camp after 9 O'clock at night.
>
> 6th The horn for rising will be blown at half-past 4 Oclock.
>
> 7th The hour for prayers in the morning will be half past 5 O'clock.
>
> 8th That each man will be required to assist in driving to the herd.
>
> 9th The horn will be blown as notice to heardsman to bring in Cattle.
>
> 10th The Correll [corral] will not be broken nor any wagon move[d] from the ground until all the Cattle are yoked.[16]

One company in 1862 had only a mention of rules in the written record: "President J. W. Young addressed us and made known to the camp the regulations of the Saints and what was expected of them."[17]

The lack of rules barring fighting or whipping may have been due to the spiritual goals of Mormon travel, or the various company leaders may have been convinced that bad behavior would not be a problem

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criticism, Brigham Young nominated one of the vanguard group to be the official grumbler for the entire company, 117.

15. Adelia Horrocks Cameron, History of Heziakiah [*sic*] Mitchell, 1959, 14–19, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=15307&sourceId=4858.

16. For example, rules of the Miller-Cooley Company of 1853, in Elijah Mayhew, Diary, 1853 June–September, 1–2, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=13114&sourceId=5650.

17. John Daniel Thompson McAllister, Journals, 1851–1906, 4:38–72, CHL, 38, available online at http://mormonmigration.lib.byu.edu/Search/showDetails/db:MM_MII/t:account/id:818.

because the normal rules of society that addressed theft, libel, adultery, fighting, and so on were still in force. This assumption proved wrong, and in a number of cases there were incidents of violence or confrontations when violence was barely avoided. In at least one company, the second group that crossed to Utah in 1847, there was considerable tension over road position of the companies. Having first position on the trail was considered advantageous in helping with the suffocating dust problem, a well-deserved reward for being the first group ready to leave each morning.[18] Heated arguments were followed by acts of forgiveness and stopped short of violence.[19]

So, in spite of both formal and informal rules and regulations, disruptive behavior was a problem for many of the Utah-bound and California- and Oregon-bound travelers in the mid-nineteenth century. Most of the rules were related to the practical details of daily life on the trail, but the strangeness of wagon travel, general fatigue, stress of facing the unknown each morning, shortage of most essential supplies, and frustration with unexpected and uncontrollable travel details took their toll, and social behavior regulations may not have been effective among many of the companies.

Factors Involved in Violence on the Trail

But what caused disruptive behavior on the trail? Were the factors involved different for those on the Utah Trail than for those traveling to California and Oregon? It seems reasonable to assume that the causes of violence were most commonly related to the stress of wagon travel, and therefore the reasons given for violence by those who traveled the trails is not surprising. Explanations of violence on the trail by a number of California and Oregon trail veterans were summarized by travelers: "If there is any meanness in a man, it makes no difference how well he has it covered, the plains is the place that will bring it out."[20] "All the bad traits of the men are now well-developed—their true character is shown, untrammelled, unvarnished. Selfishness, hypocricy, &c. Some, whom at

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18. See the many mentions of dust in John Vance, Journal, June–October 1847; 1849, 1, 13, 14, CHL, available online at http://history.lds.org/overland travels/trailExcerptMulti?lang=eng&pioneerId=1694&sourceId=19385.

19. David L. Clark, *Joseph Bates Noble: Polygamy and the Temple Lot Case* (Salt Lake City: University of Utah Press, 2009), 121, 122, 124, 130.

20. E. W. Conyers, 1852 Diary, quoted in Reid, *Policing the Elephant,* 2.

home were thought gentlemen, are now totally unprincipled."[21] Another emigrant remarked, "If a man has a mean streak about him half an inch long, I'll be bound if it wont come out on the plains."[22] One traveler summarized his observation, "If a man is predisposed to be quarrelsome, obstinate, or selfish, from his natural constitution, these repulsive traits are certain to be developed in a journey over the plains. The trip is a sort of magic mirror, and exposes every man's qualities of heart connected with it, vicious or amiable."[23] Lucina Boren, a Latter-day Saint, concluded after arriving in Salt Lake City in 1853, "No one but those who crossed the plains can even imagine the trials we had to pass through."[24]

Trail stress most likely was the factor that triggered latent antisocial behavior among many travelers despite a contrary view that the trail experience could actually improve a man: "Some optimists took the position that even if the overlanders were not the finest men when they started, they certainly would be when their trek was finished, thanks to the healing powers of western nature."[25] The improved man, especially along the California and Oregon trails, was the exception, and more commonly there was a man whose violent behavior caused suffering and even death for others traveling.

Is it possible that Mormons as a group were predisposed to violence and disruptive behavior in the mid-nineteenth century? Perhaps it is more likely that they felt obliged to turn the other cheek multiple times, as instructed by Christ and expounded upon in a revelation given to Joseph Smith in 1833, which promised rewards for those who, when persecuted, would "bear it patiently and revile not against [enemies], neither seek revenge" (D&C 98:23). On the other hand, during the years the Mormons were headquartered in Nauvoo (1839–1846), the city had a reputation among non-Mormons as a lawless place. The sentiment that Nauvoo was a crime haven may well have carried over to the Saints' reputation as troublemakers on the westward trail. Kenneth Godfrey's study of crime in Nauvoo shows that the city attracted frontier outlaws seeking to take advantage of

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21. J. Goldsborough Bruff, Journals, 1849–51, quoted in Reid, *Policing the Elephant,* 3.

22. A. Delano, *Life on the Plains,* quoted in Reid, *Policing the Elephant,* 2.

23. Edwin Bryant, *Journal,* 68, quoted in Reid, *Policing the Elephant,* 2.

24. Lucina Mecham Boren, History of Lucina Mecham Boren, Pioneer History Collection, Pioneer Memorial Museum, Salt Lake City, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=14864&sourceId=18541.

25. Unruh, *Plains Across,* 59.

the Saints, and there was some criminal activity. At least one Church member was also part of the cause of the city's poor image: a Church member, William Gregory, confessed to and was convicted of having "spread abroad certain slanderous reports and insinuations that go to carry an idea that much pilfering, pillaging, plundering, stealing, &c is practiced by members of said church and that such practice is known to and tolerated by the heads and leaders of the church."[26] One Mormon man was convicted of whipping his wife.[27] The "non-Mormon populace of Illinois came to believe that everything that was stolen in or near Hancock County had been taken by Mormons and that all Mormons were thieves."[28]

But Church leaders never countenanced lawlessness; they worked hard to maintain order and justice. Godfrey concludes:

> The indictment rate is no lower than that of Marion County, Indiana, whose population was greater than Nauvoo's [an indication that crimes were not tolerated]. These statistics [records of court cases] indicate that the crime rate was low in Nauvoo, as the Saints claimed. . . . Often perpetrators tried to make it appear that they were LDS or that they were acting for the LDS church. Many neighboring nonmembers, unable to discriminate between good and bad Saints or to know if lawbreakers from Nauvoo were in fact Mormons, came to believe Nauvoo was a hotbed of criminal activity. . . . Available records regarding Nauvoo's crime and punishment indicate that images of Nauvoo as a crime haven contain elements of truth but are exaggerations.[29]

Thus, while Nauvoo likely had less crime than a typical frontier town, the Saints were not immune from attitudes and habits that may explain at least some of the disruptive behavior that occurred on the trail to Utah.

Certainly trail stress affected both Mormons and non-Mormons, but the degree of violence that resulted was not the same for the two groups. First we consider various varieties of disruptive behavior that occurred along the Utah Trail and then compare this to reports of violence among those traveling to California and Oregon.

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26. Nauvoo High Council Minutes, October 17 and 24, 1840, cited in Kenneth W. Godfrey, "Crime and Punishment in Mormon Nauvoo, 1839–1846," *BYU Studies* 32, nos. 1–2 (1992): 203–4.

27. Nauvoo High Council Minutes, January 17, 1843, cited in Godfrey, "Crime and Punishment," 209.

28. Cecil A. Snider, "Development of Attitudes in Sectarian Conflict," 16, cited in Godfrey, "Crime and Punishment," 209.

29. Godfrey, "Crime and Punishment," 198, 221, 222.

Violence on the Trail to Utah

Disruptive behavior and occasional violence occurred among the Utah travelers but rarely between the Indians and the Utah-bound Saints. Use of the standard bullwhip was the most common tool of violence and was used for fighting, punishment, and motivation. Other tools of violence included knives, guns, and fists. Unintentional or accidental violence and threats of violence also occurred along the trail. This study includes reports of violence that occurred among Mormon pioneers, whether perpetrated by Mormons, Indians, or other Americans, that were found in pioneer records.[30]

A bullwhip in the 6- to 10-foot range. Courtesy of Keith Klein.

Whippings were a common form of corporal punishment during the seventeenth and eighteenth centuries in both England and the United States. Public whippings of women had largely stopped in England by 1817 and of men during the 1830s.[31] Evidently, whippings as a form of corporal punishment were reduced in frequency during the nineteenth century in the United States but apparently were still part of the culture for many of those traveling the Utah Trail in the middle part of that century.[32]

Along with real whippings on the trail there were also threats of whipping. While a threat of whipping does not constitute an act of

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30. The records included in this study are of time on the trail, not in settlements. In 1847 and 1848, the trail was from Winter Quarters to Salt Lake City. From 1849 to 1866, outfitting points were typically Kanesville, Iowa; or Florence or Wyoming, Nebraska. In 1866 and 1867, the railroad extended gradually farther west and finally reached Utah in 1869.

31. Punishments at the Old Bailey, in *The Proceedings of the Old Bailey, London's Central Criminal Court, 1674 to 1913,* available online at http://www.old baileyonline.org/static/Punishment.jsp.

32. For example, R. Calvert, "Criminal and Civil Liability in Husband-Wife Assaults," in *Violence in the Family,* ed. Suzanne K. Steinmetz and Murray A. Straus (New York: Harper and Row, 1974).

violence, the occurrence of threats recorded by the pioneers suggests that whippings were known and accepted as a common form of punishment, retaliation, or simple aggression. Certainly, the threat of being whipped was a challenging or motivating experience for the persons threatened.

Aggression and Disruption. The first trail incident occurred in the Brigham Young vanguard pioneer company of 1847 and involved fighting with a whip. According to Thomas Bullock, one morning in June as the Vanguard Company was preparing to pack for another day of travel, he was approached by George Brown, who told him that "Captains orders" were to make sure the cattle were safe.

> I told him I would go my self as quick as I could put the things away, which took me about 5 or 10 minutes at the outside. I then started after the Cattle, saw them all, & then met G. Brown & told him I had seen them all—he asked why I had not gone when he told me—"instead of idling & fooling away your time half an hour." I replied, "O Good God, what a lie, if you say I have been idling or fooling half an hour". . . . he then struck me with his Whip. saying "I am ready for a fight, for I'd as leave fight as not". I said "you shall hear of this again. for I shall tell the Dr.", he up with his fist to strike me, saying "You may tell the Dr. as soon as you like". but I got out of the reach of his arm, & so avoided another blow. George Brown has lied to, and about the Lord's anointed many times, I have been more abused <& reviled> by him, than any other person, he has now Struck me with his whip. and I now pray that the Lord God of Israel may reward him according to his evil deeds, & punish him until he repent & forsake his evil ways.[33]

In an 1849 company traveling to Utah, William Appleby described an event when "a Driver or Teamster of one of Mr. [Edward] Sayres [Sayers] got into dispute with Mrs. S. (Mr. S. being absent) in regard to driving the Team. He called her by some base, vile epithets, when she retaliated by using a whip on him. He then struck her and blacked one of her eyes. He was left to the care of the officers of the Camp to deal with him for the same."[34]

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33. Bullock, Journals 1843–49, 4:29.

34. William I. Appleby, Autobiography and journal, 1848–56, p. 3, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti? lang=eng&pioneerId=4373&sourceId=5985.

In an 1848 company, Oliver Huntington recorded a spousal whipping:

> We were then 380½ miles from Winter Quarters. . . . [A]ll the camps had got along well, and with few accidents. Three had been run over in our camp and one wagon turned over which was brother Gates'. He blamed his women severly for it, and what mortified him worse than all, it disclosed a bbl. of wine; before unknown. The wagon turned square bottom side up, no one in it. That night he quarreled with his wife and whipped [her]. The guard about 11 o'clock saw it and when the hour came to cry, he loudly cried 11 o'clock, all is well and Gates is quarreling with his wife like hell.[35]

While travel fatigue was surely part of this spousal abuse, such treatment was not exceptional, given the general treatment of women in the nineteenth century. While legal authorities prosecuted and newspapers condemned abuse of women, much went unreported.[36]

Fighting with fists and knives and threatened fights with guns also occurred. In 1852, two men competing for the attention of a beautiful seventeen-year-old girl exchanged words that enraged one of them. "Mathews was of a fiery temper and threatened the life of Curtis if he did not recall his words and exposed a dagger which said he would take the life of Curtis as soon as opportunity offered." While the initial dispute was settled without violence, additional discussion of the incident involved at least twenty-five men and another fight between Curtis and a man who threatened to hit him with a crutch. When it appeared that the fight would soon involve the entire company, "a man of resolute courage and good sense—seeing the course things were taking—jumped upon a wagon tongue and in a short and eloquent speech in which he told them how foolish they were acting and warned they were in an Indian country—that union was necessary for self protection. All parties slunk off to their wagons." Later, there was some discussion suggesting that Mathews, the man who threatened to kill Curtis with a knife, should be given a death penalty, but a company council review of the entire event

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35. Oliver Boardman Huntington, Diary and Reminiscences, 1843 June–1900 January, 20–43, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&companyId=4&sourceId=4579.

36. Carolyn Ramsey cites examples of domestic violence in the American West and compares them to similar problems in Australia in the late nineteenth century. It was often the case that women were reluctant to testify against husbands. Carolyn B. Ramsey, "Domestic Violence and State Intervention in the American West and Australia, 1860–1930," *Indiana Law Journal* 86, no. 1 (2011): 185–255.

ruled that no punishment should be forthcoming. The company arrived without further incident in Salt Lake City on October 3, 1852.[37]

In another 1852 company, a ruling that personal cattle could be requisitioned to help pull other wagons, when the wagons needed help, initiated violence. When a man named Horne came to get a requisitioned cow, its owner, a man named Pullen, refused to give up ownership. He defended his cow by pulling a knife on Horne, who then threatened to hit Pullen with a bridle. In the exchange, Horne's hand was cut by the knife before Pullen was knocked to the ground by others. After a hearing before a hastily assembled group of men from the company serving as judges, Pullen was sentenced to be bound for three days, perhaps something similar to a house arrest. The company then continued on the trail past Devil's Gate and camped on the Sweetwater.[38]

In an 1855 company, a fistfight led to the loss of a tooth by one of the participants. At a company council meeting to adjudicate the event, it was decided that the victim should either receive twenty dollars from the aggressor or the aggressor should pay for the best tooth that could be found for the victim when the company reached Salt Lake City.[39]

One whipping on the trail did not involve members of the traveling company but a group of Indians who came into camp to beg and, unfortunately, to steal. One visiting Indian trying to make off with a sack of crackers was caught by a member of the company. The chief of the Indian visitors gave the thief a beating with his riding whip as well as "a terrible talking to." However, members of the company concluded that the chief whipped his tribesman because he was caught, not because he was stealing.[40]

In another incident, a whip lash supposedly intended for oxen struck a person. In an 1858 company, a family agreed to transport a woman and her ten-year-old daughter whom they did not know. Mrs. Miller turned out to be a problem. She would take the family's food and trade it off for

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37. George Armstrong Hicks, "Family Record and History of Geo. A. Hicks," typescript, 1, 2, available online at http://history.lds.org/overlandtravels/trail ExcerptMulti?lang=eng&pioneerId=10337&sourceId=12163.

38. John Oakley, Journal, in William Carter Staines, Journal, August 1852–May 1860, CHL, available online at http://history.lds.org/overlandtravels/trail ExcerptMulti?lang=eng&sourceId=5615.

39. Richard Ballantyne, Diaries and reminiscences, 1852–96, 6:5–6, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti ?lang=eng&pioneerId=17308&sourceId=4803.

40. Samuel Kendall Gifford, Reminiscences, 1864, 8–10, CHL.

personal items at the few trading posts along the way. The family decided that they would no longer transport the woman, but the company captain suggested that she just needed a lecture. A lecture was given, but this was ineffectual. In addition, the woman refused to walk when it was necessary to do so. One day she was riding in the wagon and evidently criticized the driver, who took his whip to lash the oxen and "accidentally" struck the woman across her mouth. She screamed and a minor skirmish occurred. Officially, the company captain judged that it was an accident but said, "She was in the rong and to blame and had just got what She deserved."[41] If this is an accurate account of the event and its resolution, the "accidental" nature of the whipping is questionable.

Another whipping threat occurred in an 1852 company when an outbreak of cholera frightened Elizabeth Robinson to the extent that she refused to walk with the others in her company but stayed in bed in her wagon because she thought she had cholera. Her husband was convinced that it was fear that caused her sickness. He ordered her to get out of bed and begin walking or else he would give her a "'good flogging' . . . —she recovered immediately."[42]

While fighting with whips occurred, the use of a whip for punishment suggests a different kind of violence.[43] A report of one egregious whipping on the trail to Utah is the story of John Griffiths, a member of the Martin Handcart Company. Griffiths suffered from "rheumatism," perhaps rheumatoid arthritis. After riding in one of the three wagons that accompanied the handcarts, he thought he was strong enough to walk

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41. Mary Sophia Foremaster Maudsley, Autobiography, 1928, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=21340&sourceId=4819.

42. Hicks, *Family Record,* 10–11.

43. Bullwhips and whip-substitutes were most commonly used for driving the cattle that pulled the wagons. But on occasion the whip and even the butt of the whip were used as fighting implements. From 1847 to at least 1865, there were trail whippings of people for a variety of reasons. In addition, the whip was used as a threat against both friend and foe. On the more social side, the whip was used as an alarm clock. Ruth May Fox recalled that the crack of a whip on their little tent was the signal to get up and get ready for the day's journey. "One crack of his whip on the tent or wagon cover, whether at 3 a.m. or 5 a.m. meant roll out. . . . So get up my lads, gee, whoa, Push on, my lads, hi, ho, For there's none can lead a life Like we merry Mormons do." Ruth May Fox, "My Story," 11–13, "Pioneer History Collection," at Pioneer Memorial Museum, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=35569&sourceId=18744.

with other members of the company. This was a bad decision because he couldn't keep up with the company: "He took hold of the rod at the end gate of the wagon to help him along and when the teamster saw him, he slashed his long whip around and struck father [Griffiths] on the legs and he fell to the ground." Griffiths was unable to stand up. He was behind the last wagon of the company, and the company moved on, leaving Griffiths crawling by himself on the trail. His family, pulling their cart with the main part of the company, assumed that he was still riding in a wagon, and it was not until camp was made that night that the situation was realized. His daughter walked back for three miles along the trail but was unable to find him. After falling, Griffiths, fortunately, was able to crawl to the Jesse Haven Company camp, just off the handcart trail. Reaching the camp, he told his story, and members of the Jesse Haven Company transported him to the Martin Company camp at about 11:00 that night. After a dramatic winter rescue, the Martin Company reached Salt Lake City on November 30. Sick and exhausted from the trip, John Griffiths died the next day.[44]

A similar senseless act of violence occurred in an 1864 company that included Jane Rogerson Ollerton and her family. Jane did not know that she was pregnant when her journey began in England, and while walking from Nebraska to Wyoming, she was unable to eat, and her health deteriorated rapidly. In Wyoming, walking behind the wagon driven by the company captain, she became faint and grabbed the back of the wagon for support. William Warren, the company captain, turned and saw her holding onto the wagon and used his bullwhip to whip her and ordered her to move away from the wagon. Jane, starving and sick, and now whipped by the company's captain, collapsed and died a short time later. The apparently unsympathetic company moved on and left the Ollerton family to bury their mother. With the help of friendly Indians, a burial was accomplished, and the next day the Indians helped the family reach the wagon company. Only a few members of the grieving family remained with the LDS Church after reaching Utah.[45]

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44. Margaret Ann Griffiths Clegg, Autobiographical sketch, at http:// history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=19041 &sourceId=15676. This story is also recorded in Andrew Olsen, *The Price We Paid: The Extraordinary Story of the Willie and Martin Handcart Pioneers* (Salt Lake City: Deseret Book, 2006), 350–52.

45. Ollerton family records, in the author's possession. Some of these details are recorded in the story of Jane Rogerson Ollerton by Lola Turley, in "Graves along the Trail," *Our Pioneer Heritage,* ed. Kate B. Carter, 20 vols. (Salt Lake City:

Another report also sounds foolishly harsh: in the 1856 Edmund Ellsworth First Handcart Company, Pierre Stalle was dying.

> It is claimed, by the children . . . that he died of starvation. It is claimed that Mr. Ellsworth sold part of the food that should have gone to the saints. When Pierre Stalle was dying, his wife [Jeanne Marie Gaudin-Moise] climbed to the wagon to have a few last words with her husband. Ellsworth came with a rope and cruelly whipped her until she was forced to get down. This was verified by the French families who came. "The captain was a very mean man. At one time a man died and they whipped and kicked him and threw him under the tent."[46]

Though confusing, this story suggests that ill-tempered treatment including whippings were of some concern for many of those traveling to Utah.

In at least four records, whippings were used to keep people alive and moving. During the Willie Handcart trek, Ann Jewell Rowley recorded: "I watched John, so cold, drowsy and sick, want to lie down in his tracks, never to rise again. I had to stand helplessly while Captain Willie whipped him, to make him go on. Gladly would I have taken the whipping myself."[47]

Similar whippings occurred during the Martin Handcart trek. Nicholus Teeples recalled problems during times when the company waded streams, climbed mountains, or made and repaired roads. "On the best days they could travel ten miles a day. But on bad cold days it was torture to go but a third of that." Eventually the tired pioneers would lie down under a bush or tree. But this resulted in an indifference to resuming their trek. According to Teeples, "The leaders had to take a whip to them and lash them back to consciousness, when they would beg to be

Daughters of Utah Pioneers, 1958–77), 16:464–65. One of the Warren Company, Orley Dwight Bliss, recorded the death of a Sister Holliton on September 28 and burial the next day. Probably, this refers to Jane Ollerton, but Bliss's account is very brief. Orley Dwight Bliss, Reminiscences, CHL, at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=32120&sourceId=6258.

46. Margaret Stalle Barker, Reminiscences, 8, in Rebecca Cardin Hickman, "History of Susanna Goudin Cardon," in [Biographical sketches of the Cardon family, 1934–60], CHL, available under Pierre Stalle's name at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=18599&sourceId=2870.

47. Ann Jewell Rowley, autobiography, in James Albert Jones, comp., *Some Early Pioneers of Huntington, Utah and Surrounding Area* (1980), 244–46, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=19798&sourceId=7457. John Rowley survived, had five wives and twenty-seven children, and lived in Nephi, Utah, and later Mexico.

left to die."[48] While whipping as a means of motivation may not be considered a form of violence by some, severe whipping is violence regardless of motivation or intent.

In an 1848 company traveling with the second Brigham Young company going to Utah from Nebraska, Morgan Hinman recalled a different kind of whipping. Henry, a boy who "formerly lived on pies and cakes," was without pastry on the trail and refused to eat the poor rations provided. Fearing that he would become so weak that he could not travel, his mother forced him to eat the meager rations by whipping him. Evidently, the whipping was successful, and mother and son arrived in Salt Lake in September.[49]

Annie Kershaw remembered that in 1865, she and a group of children found a grove of "potawatome plum" trees and stopped to feast on their find. They were about a mile behind the company when the company captain, William Willis, rode back on his horse. Willis then drove the children ahead of him, cracking his "black snake whip at us, and I tell you we never stayed behind again."[50]

The threat of the use of the whip was also a factor in dealing with hostile Indians. In an 1854 company, an eight-year-old girl was taken from the back of a moving wagon by an Indian. The girl's father raced to the rescue and cracked his whip several times just above the Indian's head. The girl was released unharmed, the unsuccessful kidnaper escaped, and the young girl rode in the front of the wagon after that.[51]

One company, traveling from California to Utah because of the 1857 war recall by Brigham Young,[52] successfully used the threat of whipping to avoid a serious incident with hostile Indians. The Indians tried to

48. Nicholus Gourley Teeples, Interview, in "Utah Pioneer Biographies," 44 vols., 28:95–101, 105–6, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&companyId=192&sourceId=7572.

49. Rojanea Jacobs Bingham, "A Brief Life Sketch of My Grandparents: Henry Lyman Hinman and Mary Jane White Hinman," 5–6, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=2142&sourceId=4538.

50. Annie Maria Kershaw Thompson, "History of Annie Maria Kershaw Thompson," in Danny Jessop and Marla W. Jessop, comps., *Joseph Frederick Thompson Ancestry* [1996], 38, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=32971&sourceId=11905.

51. Cameron, History of Heziakiah Mitchell, 16.

52. For the recall of members to Utah, see Leonard J. Arrington, *Brigham Young: American Moses* (New York: Knopf, 1985), 261; for the Utah War, see Norman F. Furniss, *The Mormon Conflict, 1850–1859,* (New Haven: Yale University Press, 1960); and more recently David L. Bigler and Will Bagley, *The Mormon*

capture a wagon ahead of the small group but were threatened with a whip. Before the whip was used, other members of the company arrived at the scene, and the Indians did not harm the wagon or its occupants.[53]

One report of a whipping along the trail may have been merely in a metaphorical sense. In early September, between the ninth Sweetwater crossing and Rocky Ridge, the second 1847 company met part of the Brigham Young Company on its return to Winter Quarters. Acquaintances were renewed and a program was arranged for the evening activities with Brigham Young as principal speaker. Because of this activity, the guard duty was neglected that night and "about 40 horses & mules stolen."[54] According to one account, as a result of losing the animals, "Presdt. Young whips Col. Markham for neglecting to have watch."[55] There were two President Youngs in camp that night, John Young of the second 1847 company, and President Brigham Young and his company returning to Winter Quarters. Because Markham was with Brigham Young's company, the reference to the whipping most likely refers to Brigham Young, not John Young. However, other accounts of the same event make no reference to a whipping with a whip by Brigham Young, and probably it is accurate to assume that this was a verbal whipping rather than one involving a bullwhip.

In 1864, violence was barely avoided when a disagreement resulted in a major split of the John Chase Company. The company had traveled peacefully until reaching Ash Hollow, in what is now westernmost Nebraska, where a company of soldiers was stationed. At this point, George Dunford, owner of eight wagons of merchandise driven by LDS teamsters, disagreed with a camp decision concerning the appointment of his head hired man, Isaac Nash, as a sergeant of the guard for the whole company. Dunford decided to form his own company and to fire his teamsters, who would then need to be assimilated with the remainder of the John Chase Company in order to complete the trip to Utah. There was some discussion, and Isaac Nash tried to negotiate severance pay

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Rebellion: America's First Civil War, 1857–1858 (Norman: University of Oklahoma Press, 2011).

53. Melissa Keziah Rollins Heyborne, Autobiographical sketch [ca. 1925], 1, CHL, available online at http://history.lds.org/overlandtravels/trailExcerpt Multi?lang=eng&pioneerId=43678&sourceId=19734.

54. Eliza Roxcy Snow, *The Personal Writings of Eliza Roxcy Snow,* ed. Maureen Ursenbach Beecher, vol. 5 of Life Writings of Frontier Women (Logan: Utah State University Press, 2000), 199.

55. Vance, Journal, 11.

for the teamsters in provisions (which Dunford amply possessed) rather than cash. Dunford would not agree, and during the argument, Dunford, fearing that Nash would take provisions for the teamsters rather than "legal currency" that he offered, drew his revolver and threatened to shoot Nash. "It was cocked and his finger was on the trigger when a man by the name of Hall jumped and grabbed the revolver away from Dunford who cried out to his son Henry to run to his carriage and bring another revolver. As Henry was returning to his father [with the additional gun], a man who was sitting by the camp fire knocked the revolver from his hand with a stick of wood. Soon after that, Dunford [with his wagons] moved to the soldiers' camp and we started on our way."[56] The teamsters, without jobs or wagons for transportation, were assigned to ride with others for the remainder of the trip to Utah.

A less serious confrontation occurred in Richard Ballantyne's 1855 company. One evening, a Brother Simmons and a Sister Berry were setting up tents next to each other. Simmons asked Berry to move her tent a little, and when she refused, he pushed her and she fell over her bed, which was already in position. According to witnesses, a struggle followed with inappropriate name calling, and Berry scratched the face of Simmons. At a hearing before the company council, the entire incident was reviewed and both Sister Berry and Brother Simmons were required to apologize to the company.[57]

Accidental and External Violence. Unfortunate incidents that could be considered accidental violence also occurred. In the same Ballantyne Company of the Berry-Simmons quarrel, two were hurt in accidental shootings. One injury was the result of careless handling of a loaded pistol while setting up camp,[58] and another occurred when a man readied his gun while Indians were in camp and accidently shot a woman in the knee.[59] During the William Budge Company travel in 1860, three friends went hunting for sage hens. With guns loaded, one man stumbled and shot another, who died that night.[60] In 1867, traveling with the Leonard G.

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56. Isaac B. Nash, [Reminiscences], in Carma L. Sandberg, "Nellie Nash (A Pioneer Biography of Mrs. Ellen Elvira Nash Parkinson, Wife of William Chandler Parkinson)" (master's thesis, Brigham Young University, 1959), 7–9, available online at http://history.lds.org/overlandtravels/trailExcerptMulti ?lang=eng&pioneerId=30842&sourceId=4949.

57. Ballantyne, Diaries, 9.

58. Ballantyne, Diaries, 6.

59. Ballantyne, Diaries, 8.

60. Christian Lyngaa Christensen, [Journal], in Susan Arrington Madsen, *I Walked to Zion: True Stories of Young Pioneers on the Mormon Trail* (Salt

Rice Company, Ruth May Fox recorded that a young man was killed by a stray shot.[61]

Violence because of unfriendly Indians was a constant worry, and a few instances are cited here. According to a *Deseret News* warning, "There are Indians, numbers of them, on the route, but they keep out of sight until they see a sure chance for plunder and blood; then they show themselves, murder and rob, and are out of sight immediately."[62] In an 1848 company, the business of setting up camp for night was interrupted by a report that Indians were taking cattle from a grazing ground located several miles from the evening's campsite. Armed men from the company immediately pursued the Indians, and in the ensuing gunfight two pioneer men and one Indian were wounded. The two wounded men, losing blood, were rushed back to camp for care, and the cattle were recovered with the loss of only one ox. Both wounded men recovered.[63]

In 1856, Almon W. Babbitt hired several people to carry government property to Utah. The small company was attacked by Cheyenne Indians; four of the party were killed, including a woman by the name of Wilson, and some escaped.[64] Babbitt himself was following a few days behind them. While stopped at Fort Kearney, Babbitt heard of this attack. Although warned against it, he set off for Salt Lake with only two men. The three men were attacked and killed by the Cheyenne at Ash Hollow on September 7, 1856.[65]

Lake City: Deseret Book, 1994), 89–90, available online at http://history.lds .org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=24266&source Id=9434.

61. Fox, "My Story," 1.

62. "Travel on the Plains," *Deseret News,* September 6, 1865, 389, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng& sourceId=9794.

63. Huntington, Diary and Reminiscences.

64. "The Death of the Captive Mrs. Wilson," *The Mormon,* January 10, 1857, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang =eng&sourceId=8889; "Journey from Florence to G. S. L. City," *Deseret News,* October 22, 1856, 258, available online at http://history.lds.org/overlandtrav els/trailExcerptMulti?lang=eng&companyId=356&sourceId=8762; John D. T. McAllister, Diary, September 7, 1856, cited in Lyndon W. Cook, *Nauvoo Marriages, Proxy Sealings, 1843–1846* (Provo, Utah: Grandin Books, 2004), 124.

65. "The Indian Outrages—Confirmation of the Death of Col. Babbitt," *New York Daily Times,* November 7, 1856, available online at http://history.lds .org/overlandtravels/trailExcerptMulti?lang=eng&sourceId=8746; "Obituary," *The Mormon,* November 22, 1856, 1, available online at http://history.lds.org/ overlandtravels/trailExcerptMulti?lang=eng&companyId=356&sourceId=8738.

An incident of Indian violence affected a company traveling to Utah, but not on the Utah trail from Nebraska; rather, it was on the trail from California to Utah. The Jonathan Holmes/Samuel Thompson Company consisted primarily of Mormon Battalion members traveling from northern California to Utah in 1848. On June 28, a few days after leaving Sutter's Fort, the company sent three men ahead of the main company to serve as scouts looking for a suitable trail across the Sierra Nevada but south of the Donner Pass. Three weeks later, the bodies of the three men were found. They had been murdered in their sleep in a shocking manner. After burying the dead, the company moved on, and, after minor trouble with Indians, reached Salt Lake City in September.[66]

Not all encounters with Indians were troublesome. According to Unruh, although "nearly 400 emigrants were killed by Indians in the first twenty years of overland travel, Indian tribes provided overlanders with information, foodstuffs, clothing, equipment, horses, canoeing and swimming skills, traveling materials, and other assistance,"[67] at least for the '49ers and Oregon travelers.

Alleged Murder and Real Murder. In an 1853 company, according to one account, Francis J. Brey mysteriously disappeared. Company members assumed that he had simply wandered off and was lost. A search was conducted, but Brey was not found. Several months after the company reached Salt Lake City, Elijah Ables, a member of the company, noted that another member of the company who previously had few funds now had acquired a sum of money. Ables suspected that person may have murdered Brey on the trail and taken his money, and Ables wrote Brigham Young requesting an investigation. However, there was no investigation, and no contemporary accounts supported the murder suspicion of Ables.[68] An alternate account of the incident suggests that Ables's suspicion of murder was wrong and that Brey simply had left the company, taking his ox and horse teams with him when he joined a company of passing traders.[69]

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66. Jonathan Harriman Holmes, Diary 1846–48, vol. 1, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=42693&sourceId=18348.

67. Unruh, *Plains Across,* 386.

68. Russell W. Stevenson, "'A Negro Preacher': The Worlds of Elijah Ables," *Journal of Mormon History* 39 (Spring 2013): 234–35.

69. Cornelius Bagnall Emigrating Company, Journal, March–October 1853, CHL, available online at http://history.lds.org/overlandtravels/trailExcerptMulti?lang=eng&pioneerId=12047&sourceId=2432.

Another account of alleged murder on the Utah trail is the testimony of Martin Wardell, who in 1889 claimed that twenty-seven years earlier, a man named Green in the William Dame Company was brutally murdered. However, no man named Green is on the roster of the Dame Company, and testimony by a number of the Dame Company participants denied the presence of a man named Green in the company and indicated that the incident described by Wardell did not occur. In support of these reports, two of Wardell's children who also were part of the company discredited their father's story and testified that the senior Wardell often imagined things that never happened and believed they were true.[70]

A real murder, though unrelated to the theme of Utah trail stress violence, occurred in 1851, only a few miles east of Salt Lake City. A resident of Salt Lake City, Howard Egan, returned home after a considerable absence because of work in California. He discovered that in his absence one of his three wives had a new child and that the father was James Monroe. Learning that Monroe was working with a freight company just a few miles from Salt Lake, Egan rode out to the freight company, found Monroe, and killed him. Questions of justification and jurisdictional procedure complicated court action, and eventually Egan was acquitted of murder.[71]

Violence among the Gold-Seeking '49ers and the Oregon-Bound

The several occurrences of violence that occurred along the Utah Trail seem almost trivial when compared to the record of murders and other incidents of violent antisocial behavior that occurred at the same time for those traveling to and from California and Oregon. More than 150 years

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70. Martin D. Wardell, [Court Testimony], *Salt Lake Herald*, November 15, 1889, 8; Joseph H. Morgan, [Court Testimony], *Deseret Evening News,* November 18, 1889, 3; William A. Rossiter, [Court Testimony], *Deseret Evening News,* November 18, 1889, 3; George Sargent, [Court Testimony], *Deseret Evening News,* November 18, 1889, 3. Isabel Wright, [Court Testimony], *Deseret Evening News,* November 18, 1889, 3; George Wardell, [Court Testimony], *Deseret Evening News,* November 18, 1889, 3; all available online at http://history.lds .org/overlandtravels/companyDetail?lang=eng&companyId=101.

71. Kenneth L. Cannon II, "'Mountain Common Law': The Extralegal Punishment of Seducers in Early Utah," *Utah Historical Quarterly* 51, no. 4 (1983): 310–16; William Woodward, Reminiscences, 8–10, William Woodward Collection 1851–1919, CHL, available online at http://history.lds.org/overlandtravels/ trailExcerptMulti?lang=eng&pioneerId=19866&sourceId=22688.

after the fact, it is difficult to verify the reports and to understand the circumstances of the trail and specific causes of violence. While greater violence may have resulted from greater stresses on the trail, California- and Oregon-bound companies experienced violence that far exceeded what is known concerning violent behavior among the Mormons on the Utah Trail.

As indicated earlier, Reid records one report of fifty murders along the Oregon trail in 1852 alone. The number can only be estimated because the accounting is based on a collection of diary reports, count- ing gravesites along the trail, and hearsay.[72] Gravesites were often marked with identification of the murderer as well as the murdered, providing some insight. For example, a board at the north fork of the Humboldt River in 1849 read, "Samuel A. Fitzsimmons, died of a wound inflicted by a bowie knife in the hands of James Remington, on the 25th of August, 1849." On occasion, the fate of the murderer was recorded: "At Goose Creek Mountains entering Nevada in 1859 emigrants saw the grave of Joseph Selleck 'executed for the murder of W. Humble.'"[73] In the bloody year of 1852, one emigrant counted the graves of three vic- tims of homicide one day and one the next, and ten days later reported the grave of another murdered man as well as the grave of the man who murdered him nearby.[74] Another emigrant in 1859 copied a grave head- board that read, "John Snyder Shot by James Garner may 14."[75] In 1849 and 1850, homicides are reported by Reid including two cases of fathers killing young men for molesting their daughters and another case on the Sweetwater River in 1849 of attempted murder of Mr. Jenkins for having an affair with another man's wife.[76]

In his compilation of death and homicide along the California and Oregon trails, Reid concludes that quarreling leading to fighting was the major cause of homicides and that most of the problems were between individuals traveling in the same company, with only occasional prob- lems between members of different companies.[77]

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72. Reid, *Policing the Elephant,* 76–77.

73. Israel Shipman Pelton Lord, *Journal of 1849,* August 27, 1849, and Merrill J. Mattes, *Platte River Road Narratives,* 497, cited in Reid, *Policing the Elephant,* 80.

74. Polly Crandall Coon, "Journal," June and July 1852, cited in Reid, *Policing the Elephant,* 77.

75. J. A. Wilkinson, *Journal: Across the Plains,* May 20, 1859, cited in Reid, *Policing the Elephant,* 79.

76. Reid, *Policing the Elephant,* 83.

77. Reid, *Policing the Elephant,* 85.

Violence was not limited to fighting. Another extreme form of anti-social behavior among members of the California- and Oregon-bound companies was the abandonment of individuals on the trail. Certainly, abandonment on the trail could have been a *de facto* death sentence. In the several cases cited by Unruh, more civil behavior on the part of passing companies was the salvation of those abandoned. A young girl and her brother, who was ill from cholera, were abandoned in their wagon on the trail after the parents died and the thoughtless company moved on, taking the family's oxen. Passing companies soon provided new oxen, "two passing doctors prescribed medicine for the boy, and a Missouri group volunteered to take care of the orphans for the rest of the trip." In another instance in 1850, when a company found "an abandoned mother and her young daughter on the trail about seventy miles west of Salt Lake City, two westbound overlanders escorted them back to the Mormon center and then turned around and retraced their own steps toward California." Reasons for the abandonment are not clear. Unruh continues, "Another 1850 gold seeker had been left by the trail after having been accidentally shot by one of his company. A passing physician attended to him, and westbound overlanders contributed money for his continuing care."[78]

Different Responses to Similar Trail Experiences

While reading these stories of those involved in western travel, one must be reminded that the descriptions of hardship and violence recorded in diaries and reminiscences could be exaggerations. This fact compelled one observer to conclude that "every genuine pioneer is honor bound to have had the hardest time on the plains of any other person living or dead."[79] However, descriptions of violence were less likely to be exaggerations than records of general hardships.

On all of the western wagon trails, the same kind of travel problems challenged the emigrants. As this study has shown, the response to the problems of travel was quite different among the Mormon compared to non-Mormon companies traveling along much of the same trail at the

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78. Unruh, *Plains Across,* 148–49. Unruh devotes an entire chapter to "emigrant interaction," 118–55. Also see Reid, *Policing the Elephant,* 73–90, 314, 413, for additional accounts of violence of the California-Oregon trails. Reid, *Policing the Elephant,* 75, also discusses the reckless use of weapons and reports that mountain man Kit Carson would rather fight Indians than travel near emigrant wagons, where accidental shootings were common.

79. Unruh, *Plains Across,* 4.

same time. It would be easy to conclude that the newly acquired LDS philosophy of life was the principal factor that tempered the Utah travelers' response. But this is only part of the explanation.

There were clear demographic differences that distinguished the LDS travelers, especially in contrast to the gold-seeking California emigrants. The rush for California gold attracted young vigorous men with few ties to community or professional responsibilities and whose principal thought was to get to their promised land quickly with little regard for anything else. Ships chartered to transport gold-seekers from the eastern U.S. were abandoned by both passengers and crews once they reached San Francisco.[80] Few were involved with care for family or friends, and they were the very type of individuals most likely to be ready for an argument or a fight. In contrast, those on the Utah Trail were largely family groups including children, women, and older people moving in church-organized groups with the shared hope to reach their new Zion without dying. Traveling as organized religious groups and dependent on the entire company for support, help, and spiritual comfort, individuals were much less likely to quarrel or fight, and problems that occurred were settled by company council. Oregon companies were more similar to the Utah travelers because many emigrants were families, but they were independent of authority and dependent on their own resources for solving travel problems, and this led to violence.[81]

Richard Brown describes the settling of the American West as "the Western Civil War of Incorporation": "More often than not, the nonviolent means of legislation, administration, court rulings, and the impersonal trends of economics and culture accounted for incorporation in the West. But westerners, frequently with violence, vehemently resisted this incorporation." Disputes that could be seen as isolated were in fact part of a "broad, unified pattern of intra-regional strife."[82] Brown counts at least forty-two violent episodes from 1850 to 1910, including the Indian wars, the rise of the gunfighters, the Tonto Basin War, and the North Mexican War as examples of wars of incorporation in the American West.[83] The Mormon Trail experience from 1847 to 1869 fits within this

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80. H. W. Brands, *The Age of Gold: The California Gold Rush and the New American Dream* (New York: Doubleday, 2002), 61, 85, discusses the armada of ships abandoned in San Francisco harbor.

81. Unruh, *Plains Across,* 339–42.

82. Richard Maxwell Brown, "Western Violence: Structure, Values, Myth," *Western Historical Quarterly* 24, no. 1 (1993): 6.

83. Brown, "Western Violence: Structure, Values, Myth," 6–20.

time period, but the Mormon experience never reached the magnitude of the explosive violence that Brown described. While there may be some aspects of the small amount of violence that occurred on the Mormon Trail that are similar to Brown's wars of incorporation, the Utah experience may be more closely related to what Brown elsewhere described as part of the violence that resulted from the evolution of the English common law into the American interpretation of that law. British common law suggested that violence could and should be avoided by the offended party by retreating from confrontations, whereas the Western American interpretation of such circumstances was that there was no duty to retreat. Self-defense was the more proper choice.[84] Obviously, confrontation would lead to violence more often than retreat. For Mormons, contrasting that trend was the injunction to suffer the trespasses of others (D&C 98:33–48).

Conclusions

Among the approximately 70,000 immigrants traveling to Utah between 1846 and 1869, there were at least 4,000 to 5,000 deaths, not quite 10 percent of the total number traveling. One estimate is that approximately 700 of these deaths occurred on board ships sailing to America and between 3,400 and 4,300 occurred while traveling overland to Utah,[85] most related to sickness, weather, or age, and several due to accidents. But there were virtually no deaths due to violence. While there were incidents of violence, most of those traveling to Utah were united in a spiritual view of their journey; they were traveling to the promised land, a real Zion, where their kingdom of God would be established. There were other important factors as well. Certainly, the idea of Zion tempered possible antisocial behavior that similar travel conditions generated among those traveling to Oregon and California in the mid-nineteenth century. All of the travelers shared the difficulties, frustrations, disappointments, and stress of the journey, and the wagon trails extracted similar responses from each of the groups, but some of these

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84. Richard Maxwell Brown, *No Duty to Retreat: Violence and Values in American History and Society,* Kindle edition (New York: Oxford University Press, 1991).

85. Shane A. Baker, "Illness and Mortality in Nineteenth-Century Mormon Immigration," *Mormon Historical Studies* 2 (Fall 2001): 88. This figure includes deaths in Iowa, Winter Quarters, and locations before immigrants began the trek over the plains.

responses on the Oregon and California trails were more violent. Theological beliefs united the Utah pioneers in a way that was foreign to the gold-bound '49ers or the land-seeking pilgrims eager to establish new lives in the Pacific Northwest. Unruh suggests that the Mormons traveled as a cooperating community that was more disciplined and better organized than were their fellow travelers going to California or Oregon. For example, companies of Utah-bound emigrants often improved the trail for the benefit of those who would follow. In contrast, along the California trail, wagon companies were known to make the trail worse, fearing competition in getting to the gold the quickest.[86]

Antisocial behavior among those traveling to Utah has not received much attention from historians, but the data given here suggest that it was the result of a combination of unanticipated travel frustration and fatigue, the evolving concept of "no need to retreat" from any confrontation, the ongoing nineteenth-century treatment of women (in at least one case), as well as just plain human orneriness. The more violent behavior of many of those traveling to California and Oregon is most likely explained by the fact that the background of these travelers was significantly different and the manner of travel was not as well organized or supervised for the California and Oregon groups as it was for the immigrating Utah Saints. With the completion of the transcontinental railroad in 1869, the stress and problems of the overland trail were eliminated for the LDS traveler as well as for others going west, and with it the end of trail-originated violent behavior.

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86. Unruh, *Plains Across,* 18–19.

Mortality on the Mormon Trail, 1847–1868

Melvin L. Bashore, H. Dennis Tolley,
and the BYU Pioneer Mortality Team

How prevalent was death on the Mormon Trail? If you were a Mormon pioneer, what were your chances of dying while traveling to Zion? How many pioneers died? What were the causes of death? What was the difference in mortality experience of males versus females or old versus young? Were you more likely to die pulling a handcart or traveling in a wagon company? These and other questions relating to Mormon Trail mortality beg for answers. This paper considers these questions using data about those pioneers who crossed the plains from east to west[1] between the years 1847 and 1868.[2] There has been a variety of published work on mortality among pioneers, including historical reports, newspaper articles, public television documentaries, and special-interest publications[3] in the past, but current resources and research techniques have resulted in more complete data. Although it is certain that additional data will come forth in the future, the detailed effort from the Church

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1. The data considered here are restricted to those individuals who were assigned to a wagon or handcart company. Those individuals who died immigrating prior to being identified with a company, for example those dying prior to reaching a staging area such as Florence, Kanesville, Mormon Grove, etc., or those dying at the staging area before being assigned to a company, are not included.

2. The transcontinental railroad was completed in 1869, materially altering the manner in which many immigrated.

3. "Special-interest publications" refer to church articles, advertisements, and reports by groups who may have a special interest in downplaying the health and mortality risks of crossing the plains.

Historical Department of The Church of Jesus Christ of Latter-day Saints over the last decade has provided enough information to sketch an outline of pioneer mortality.

About one hundred years ago, clerks in the Church Historian's Office of the LDS Church under the direction of Andrew Jenson initiated a study of the migration diaries, accounts, and records. They compiled indexes and brief histories of the Mormon companies that crossed the ocean and plains. Some of their research findings were published by Jenson in a series of articles.[4] The bulk of their research was compiled in large reference volumes called "Church Emigration" that are on file in the Church History Library. In that compilation, Jenson estimated that nearly 6,000 died on the journey.[5]

Although records of the Mormon immigration seem to be better than those of most migrations in the U.S., the records are not complete. Historians have estimated that between 50,000 and 80,000 Mormons crossed the plains between 1847 and 1868.[6] That is a wide range, and by its very breadth evidences the incompleteness of the existing records. Susan Black and others provide a general assessment of the mortality of immigrants, but state that the incompleteness of the data limit the

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4. The articles appeared almost monthly between 1891 and 1893 in the *Contributor,* vols. 12, 13, and 14.

5. See Andrew Jenson, "Church Emigration Book," vol. 1, [p. 2], Church History Library, The Church of Jesus Christ of Latter-day Saints, Salt Lake City. Although his estimate was couched in the context of immigrants crossing the plains, Jenson gave no further details about how he determined this number or about his perception of the journey. A recent attempt to assess Mormon migration deaths clearly shows that Jenson took a broad view of determining the number of deaths. His death tally included those who traveled on ships, riverboats, railroads, in wagon and handcart companies, and while in transit at outfitting places or way stations; in other words, the entire breadth and spectrum of immigrant migration—not just those crossing the plains. He may have even included deaths of people who halted in Missouri or Iowa or in any place of Mormon gathering for an extended period of time. He also included deaths beyond 1868.

6. See Wallace Stegner, *The Gathering of Zion* (New York: McGraw-Hill, 1964), 9n, citing sources for 46,972 to 68,028. Leonard J. Arrington, *Great Basin Kingdom* (Cambridge, Mass.: Harvard University Press, 1958), 99: "more than 51,000 Mormon emigrants had been assisted to America, of whom 38,000 were British, and over 13,000 were from the Continent and Scandinavia," thus not including Americans. Jenson, "Church Emigration Book," vol. 1, [p. 2]: "We approximate that 80,000 L.D.S. emigrants crossed the Plains in Pioneer years." Arnold K. Garr, Donald Q. Cannon, and Richard O. Cowan, *Encyclopedia of Latter-day Saint History* (Salt Lake City: Deseret Book, 2000), 415: "more than 60,000."

conclusions that can be drawn.[7] Subject to this caveat, they estimated that the number that died was between 4,200 and 5,000, with 4,600 as the median estimate. Although they don't give a percentage estimate, the illustration in their table uses 3.25% as a mortality rate. We note here that work is ongoing and additional data will gradually come forth.[8]

By comparison, Peter Olch estimated that "the overall mortality rate on the Oregon-California Trail was 6 percent of those starting west."[9] We note here that the Oregon Trail was about 700 miles (or 55%) longer. Recent data also indicate that the mortality rate along the Oregon Trail may actually be lower than estimated by Olch.[10]

In this paper we examine mortality along the Mormon Trail, from the staging areas where the wagon and handcart companies were formed to arrival in the Great Basin. These staging areas were moved farther west as the ability to travel up the Missouri River or by rail improved. Figure 1 gives a map of these posts and the dates they were used.

It is important to note that mortality from the staging area to the Great Basin is *not* the same as the mortality for the Mormon pioneer movement. The staging areas often experienced epidemics that resulted in numerous deaths. An indication of the extent of disease and death in some of these staging areas is given by Crandell, Bennett, and Ivie and Heiner.[11] Additionally, many of the pioneers traveled from the eastern U.S., Great Britain, or the European continent just to get to the staging

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7. Susan E. Black and others, "Do We Know How Many Latter-day Saints Died between 1846 and 1869 in the Migration to the Salt Lake Valley?" *Ensign* 28 (July 1998): 40–44. See also Shane A. Baker, "Illness and Mortality in Nineteenth-Century Mormon Immigration," *Mormon Historical Studies* 2, no. 2 (2001): 77–90, which discusses causes of death.

8. It has been suggested that since these data are based on individual enumeration, or "counting heads," these counts are conservative (underestimate the actual numbers). Some believe that there are a considerable number of people who crossed the plains to Utah who left no documentary record. William Hartley, private communication to Melvin Bashore. Here we focus on the experience of the 56,042.

9. Peter D. Olch, "Treading the Elephant's Tail: Medical Problems on the Overland Trails," *Overland Journal* 6, no. 1 (1988): 25–31.

10. Personal communication from geographer Richard L. Reick. Reick revises those overland death rates downward, below the Mormon death rate. Dr. Reick's data have yet to be published.

11. Jill N. Crandell, "Garden Grove, Iowa: From Mormon Way Station to Permanent Settlement 1846–1852" (master's thesis, Brigham Young University, 2010); Richard E. Bennett, *Mormons at the Missouri, 1846–1852: "And Should We Die"* (Norman: University of Oklahoma Press, 1987); Evan L. Ivie and Douglas C.
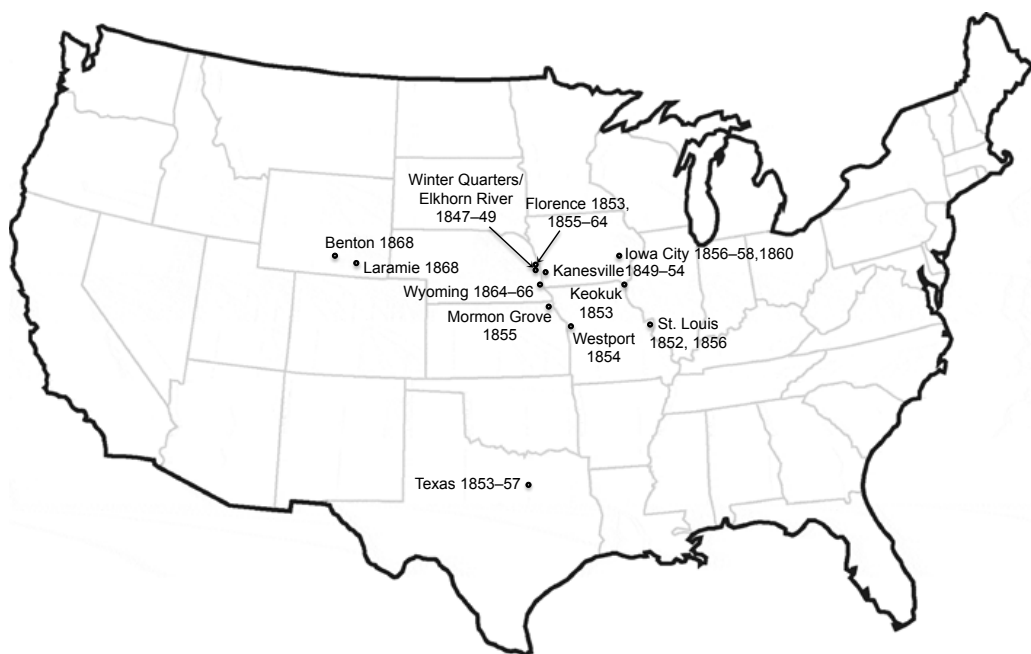
Figure 1. Staging areas between 1847 and 1868.

areas. Deaths prior to becoming a member of a wagon train or hand-cart company either in these staging areas or before reaching them *are not* included here. Sources for these data regarding the whole immigration are different from the wagon master diaries, personal histories, and church records we researched for this article. While some personal histories cover both the gathering to the trail and the trail experience itself, many historical records cover just one aspect of the experience. It is reasonable to assume that reaching the staging areas and sometimes residing there was a winnowing process in that the frail and ill were more likely to die prior to being assigned a company. In this case, the mortality rate reported here would be biased as regards determining the overall mortality rate of the immigrants.

Methods

The data on immigration have been recorded for more than a century and a half in journals, diaries, and family histories. To get an accurate

Heiner, "Deaths in Early Nauvoo, 1839–46, and Winter Quarters, 1846–48," *Religious Educator* 10, no. 3 (2009): 163–73.

assessment of the mortality experience on the trail, data from these sources have been compiled by the LDS Church Historical Department.[12] The compilation is available at http://statistics.byu.edu/news. In a very real sense, the data file has been constructed by this team by "counting heads," with the tally of deaths beginning when the company left the staging area and concluding on arrival into the Salt Lake Valley.[13]

The team cross-checked all available records to obtain as accurate a data set as possible. For example, table 1 lists the data found from three different sources on the John S. Higbee/James W. Bay company. As noted in this table, there are three diary entries regarding deaths. The first references a widow of John Walker dying. The second references the wife of Daniel Keeler dying of consumption. The third reference is the company record, recording that the total number of deaths in the company was three: two adults and an infant. One adult died of consumption and one adult died of cholera. From these three entries, three deaths were determined for the company, with the names of two individuals and an unnamed infant. Causes of death are known for two of these deaths. As in this illustration, there is considerable effort to locate all possible deaths and to cross-check to avoid double counting, miscounting, or missing deaths.

Each name identified with a death on the trail was then researched in the LDS Church's Ancestral File for additional information. When available, this information was used to get a full name, sex, age, death date, place of death, sources of the information in the Ancestral File, and additional notes.[14]

Data on company size was also included. The primary source for the company size was provided by the company clerk. Secondary sources would be statements made in trail journals.

In summary, the work at the Church Historical Department created a data file containing the names and number of individuals dying and a database containing names and number of individuals immigrating in

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12. Melvin Bashore initiated and followed through on this effort, doing intensive work from about 1998 to 2003 and then adding new information until his retirement in 2013. There were several service missionaries who helped with this labor-intensive effort.

13. Deaths that occur between the date of arrival and the end of that year are included in the current analysis as deaths on the trail. There are two reasons for this. First, for many deaths we only have the year and not the month of death. Second, deaths that occur soon after arriving may be attributable to the crossing.

14. Additional information included cause of death, name of parents, burial place, and so forth.

Table 1. Sample of data extracted from diaries, Ancestral File records, manuscripts in the Church History Library, published sources, and Jenson's Church Emigration Book, showing variant records of the same three people. These various sources were cross-referenced to eliminate duplication in our count.

Name	Sources	Citation
Mary Gorril Walker	Jane Jennings Eldredge, Reminiscences; Ancestral File	Widow of John Walker, "while traveling up the Platt River Grand Mother died and was sewed up in a blanket and buried." (Eldredge, Reminiscences)
Philinda Clark Eldredge Myrick Keeler	Ms 6578 (James Bay Journal); *Our Pioneer Heritage,* 5:455; Ancestral File; Ms 2775, p. 170	Consumption, wife of Daniel Hutchinson Keeler: "heared to day that sister Filinda keel died in Br James Townescens Co." (James Bay, 9 July entry)
2 unidentified adults and 1 unidentified child	Journal History 13 Aug 1852 p. 1; Church Emigration Book	"Elder John S. Higbee reported that in his train of sixty-six wagons there had been three deaths (two adults and one child); one adult died of cholera, and one of consumption." (Journal History)

each of the companies. For many of the deaths we have the name, age, and sex of the individual. For about 20% of these deaths, we also have the cause of death. From these data we sketch the following picture of mortality of the Mormon pioneers. Data are presented for those pioneers crossing by wagon and those crossing by handcart. The Willie and Martin handcart companies of 1856 suffered extreme difficulties, in part because of the late departure date. Because of this distinct circumstance, these two handcart companies are treated separately from the remaining handcart companies.

Results

How Many Came? How Many Died?

The big picture from the data file is that 56,042 immigrants left the staging areas from 1847 through 1868.[15] Figures 2 and 3 give the age distribution of the immigrants leaving the staging areas. Also included in these

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15. Melvin Bashore and the volunteer team have identified more individuals who are not in the data files searched here. These additional counts will add to the big picture but will probably not materially change the observed patterns reported here. These have not been included because there is some uncertainty or incompleteness about the record.

figures are the relative numbers of the U.S. white population for 1850.[16] The number of children between one and ten years old seems remarkable. Fully 45% of the immigrants were under age twenty. Note, however, that the age distribution of the Mormon immigrants follows that of the U.S. white population with the exception of the number of infants and the number of individuals over 60.

The number of deaths reported in table 2 is based on deaths recorded in personal diaries and/or reported in the company records. There are 1,910 deaths, giving a mortality rate of approximately 3.41%. Of these there were 930 female deaths (3.48%) and 944 male deaths (3.27%).

Table 3 presents the breakdown of deaths by gender for this cohort of immigrants. The "Unknown" column represents those individuals whose gender is unknown. The "Unknown" row represents the counts of those individuals for whom we have a record that they traveled with a company but for whom we could not confirm a date of death, so it is unknown whether they survived the trail. Experts usually assume that those with unknown dates of death did not die on the trail but died after reaching the Salt Lake Valley. We make the same assumption here. From this table we note that there were 26,761 females and 28,901 males we can identify, with 380 individuals (last column) for whom sex could not be determined.

Age distribution of the pioneers is given in table 4, including the number of deaths in each age group. The mortality rates for those age 10 to 29 is less than 1.70%. This cohort of 21,607 individuals who arrived (comprising almost 40% of those emigrating during this time period) make up the "pioneer" stock that initially colonized the Great Basin and beyond, followed by the 12,942 surviving infants and children who would grow up in the Rocky Mountains.

Comparing Pioneer and General U.S. Mortality Rates

The U.S. annual mortality rate during this same time period was approximately 2.5% to 2.9%.[17] Figure 2 and figure 3 show that the age distribution

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16. By "relative numbers" we mean that if we had randomly drawn 55,662 individuals (the subset of the 56,042 individuals for whom we know their sex) from the U.S. white population in 1850, with the same number of males and females as in the Mormon immigration, we would expect to get the total age counts in these figures. U.S. population was obtained from the data file nhgis0001_ds10_1850_state, located at https://www.nhgis.org.

17. Herbert S. Klein, *A Population History of the United States* (Cambridge, U.K.: Cambridge University Press, 2004), 100–101, citing McClelland and Zeckhauser, *Demographic Dimensions of the New Republic,* 109.

FIGURE 2. Age distribution of the 25,428 female immigrants with known age who left the staging areas between 1847 and 1868. Also plotted is the age distribution of the U.S. white female population in 1850, showing that the age distribution of immigrants was similar to the white population.
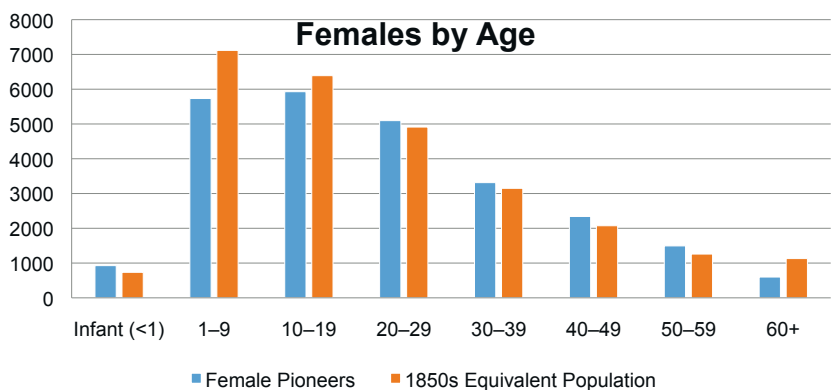

FIGURE 3. Age distribution of the 26,297 male immigrants with known age who left the staging areas between 1847 and 1868. Also plotted is the age distribution of the U.S. white male population in 1850, showing that the age distribution of immigrants was similar to the white population.
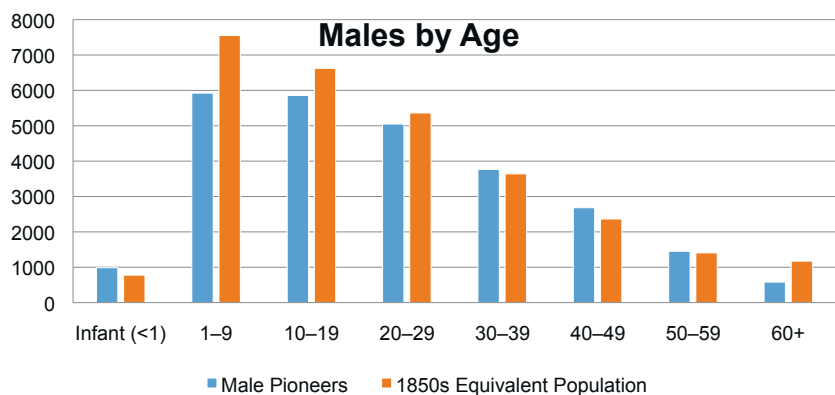
TABLE 2. Overall Mortality Rate of Mormon Pioneers Crossing the Plains. The count of immigrants is tallied from known records and includes many for whom we have no name. The total of deaths excludes people whose death date is unknown; they are assumed to have survived the trail.

Total immigrants	56,042
Total deaths	1,910
Mortality rate (%)	3.41
Total companies	307
Companies with no deaths	111
Companies with mortality between 0% and 5%	134
Companies with mortality between 5% and 10%	45
Companies with mortality over 10%	17

TABLE 3. Number of deaths and mortality rate by gender among the 56,042 Mormon pioneer immgrants for whom we have data.

Outcome	Female Count	Female %	Male Count	Male %	Sex Unkn Count	Unkn %
Died	930	3.48	944	3.27	36	9.47
Lived	19,075	71.28	20,121	69.62	27	7.11
Unknown	6,756	25.24	7,836	27.11	317	83.42
TOTAL	**26,761**	**100**	**28,901**	**100**	**380**	**100**

TABLE 4. Number of immigrants and number of deaths by age group. Percentage numbers represent the age-specific mortality rate for the immigration between 1847 and 1868.

Age Group (in years)	Number Died	Percent Died	Number Lived	TOTAL
Infant	247	12.69%	1700	1947
1–9	461	3.94%	11,242	11,703
10–19	171	1.45%	11,647	11,818
20–29	199	1.96%	9,960	10,159
30–39	176	2.48%	6,916	7,092
40–49	201	4.00%	4,830	5,031
50–59	185	6.27%	2,765	2,950
60–69	112	11.67%	848	960
70–79	32	16.08%	167	199
80+	8	36.36%	14	22
Unknown	118	2.84%	4,043	4,161
TOTAL	**1,910**	**3.41%**	**54,132**	**56,042**

of the immigrants was very similar to that of the U.S. white population in 1850. Figure 4 and figure 5 depict the age-specific death rate of females and males, respectively, among immigrants. Also tabulated are the rates for the U.S. population in 1860.[18] We used the mortality rates for 1860 since there was a cholera outbreak in the U.S. in 1850, making the death rate unusually high that year and thus not a good year for comparison. With the exception of infants, the mortality rate was higher for those immigrating than for the U.S. white population.[19]

Infant Mortality

The mortality rates in figures 4 and 5 for pioneer infants[20] under one year of age are comparable to, and possibly even lower than, those of the infant U.S. white population of 1860.[21] One hypothesis is that expectant mothers who were immigrating elected to wait a season until after delivery. In this case, infant deaths would not be recorded in our database.

Records show that there were 330 births on the trail. This yields a birth rate of 5.89 per thousand pioneers on the trail. We assumed that crossing the plains took an average of 75 days, so that must figure into our calculation comparing this birth rate to annual rates. For a 75-day period, the birth rate for the U.S. white population in 1855 calculates to 8.92 per thousand persons.[22] Assuming this birth rate, we would have expected about 500 births on the trail. Similarly, the birth rate in England-Wales calculates to about 7.5 per thousand for a 75-day period, and in Sweden to about 6.67 per thousand, leading to 420 and 374 births expected, respectively. If most of the pioneers were from the U.S. or Europe, these numbers indicate that

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18. Age-specific mortality rates were obtained from Michael R. Haines, *Estimated Life Tables for the United States, 1850–1900,* NBER Working Paper, historical paper no. 59 (Cambridge, Mass.: National Bureau of Economic Research, 1994), males 1860 and females 1860, available at http://www.nber.org/papers/h0059.pdf.

19. We multiplied the U.S. rates by seven-twelfths to correlate with the fact that the mortality data is from the beginning of the company formation to the end of the calendar year, approximately from June through December, on the average.

20. By "infant" we mean a child born alive who is less than one year old at the time of departure from the staging area.

21. We multiplied the U.S. white population infant mortality by seven-twelfths of the annual mortality to account for the partial year that people were on the trail.

22. Ansley Coale and Melvin Zelnik, *New Estimates of Fertility and Population in the United States* (Princeton: Princeton University Press, 1963), 34, giving birth rates of 43 births per thousand persons per year for the U.S., 35 for England-Wales, and 31 for Sweden.
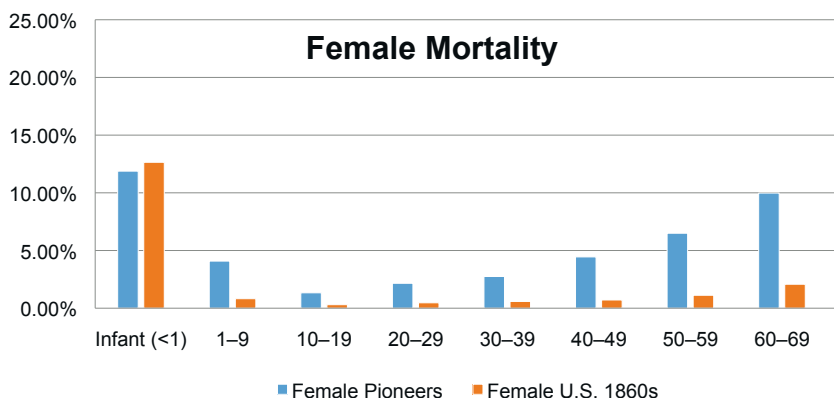
Figure 4. Age-specific mortality of the 26,761 female immigrants who left the staging areas between 1847 and 1868. Also plotted is the age-specific mortality rate for the 1860 white female U.S. population, showing that the mortality rate for female immigrants is higher for all ages except infants.
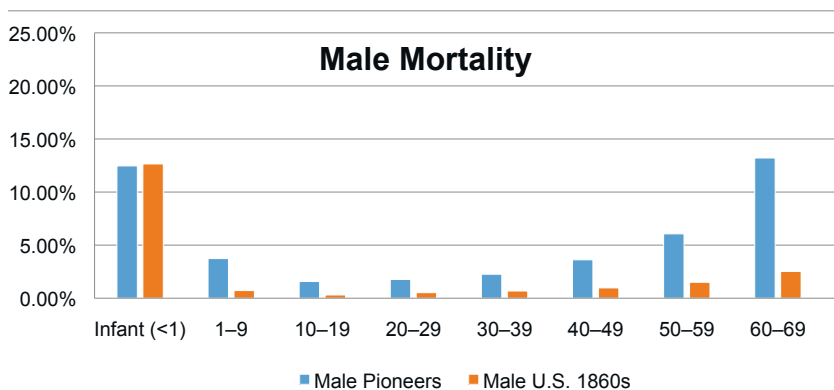

Figure 5. Age-specific mortality of the 28,901 male immigrants who left the staging areas between 1847 and 1868. Also plotted is the age-specific mortality rate for the 1860 white male U.S. population, showing that the mortality rate for male immigrants is higher for all ages except infants.

the number of births along the trail was lower than the general population, implying that there *were* some pregnant women who chose not to travel across the plains when delivery was expected. Other hypotheses are possible. However, examining any of these hypotheses is difficult with the current data. Any of these hypotheses suggest that the expectant mothers who elected to embark on the journey and deliver on the trail are *not* a representative sample of expectant pioneer women. This lack of representativeness will skew the data so that the death rate among infants would appear to be lower than would be expected had all expectant mothers started the journey without regard to their condition.

Of the 330 infants born on the trail, 42 are reported to have died in the first 28 days (neonatal deaths). Of these 42, 19 died on the day they were born. Three of these 19 are reported to be stillborn births and not actual infants born alive who then died. Some of the remaining 16 deaths on the day of birth may have been stillborn infants who were not reported as such. Removing the confirmed stillborn deliveries, we have 39 deaths in 327 live births. This gives a live birth neonatal death rate of 11.93%. We have not found any reference to a neonatal death rate among the U.S. white population for the mid-nineteenth century to compare. Annual death rate for 1860 for the infant U.S. white population is estimated to be about 21.6%.[23] We multiply that rate by five-twelfths so that we can compare it to trail births (we estimate an average of five months between birth on the trail and the end of the year), giving a rate of 9.0% for the U.S. population. This 9% is clearly lower than the 11.93% observed on the pioneer trail.[24]

There were 1,617 infants who were born prior to joining a company. Of these, 205 died, giving a 7-month death rate of 12.68%. The U.S. rate for a 7-month period and age is estimated to be 12.6%, ostensibly the same.

Mortality by Mode and by Departure Month

Two questions come to mind regarding the pioneers' journey across the plains. First, is there a difference in mortality rate of those in wagons as compared with handcarts? Second, does the time the company left in

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23. Haines, *Estimated Life Tables for the United States,* table 2, White Population, 1860.

24. These data correct earlier calculations of infant mortality rates reported to the media in, for example, "New Study: Mormon Pioneers Were Safer on Trek Than Previously Thought, Especially Infants," *Deseret News,* July 20, 2014, at http://www.deseretnews.com/article/865607257/New-study-Mormon-pioneers-were-safer-on-trek-than-previously-thought-especially-infants.html?pg=all.
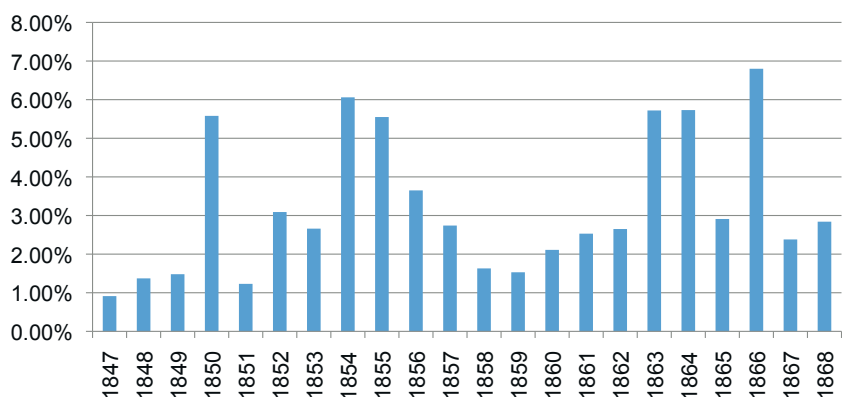
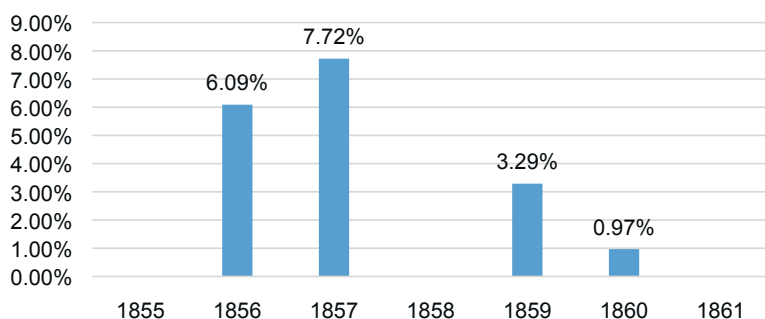**FIGURE 6.** Mortality by year of departure for wagons.

FIGURE 7. Mortality by year of departure for handcarts, excluding Willie and Martin companies. The Willie and Martin companies (1856) suffered a mortality rate of about 16.5%.
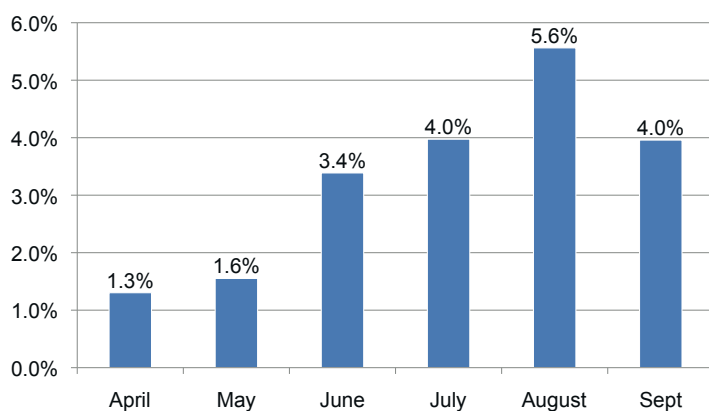

FIGURE 8. Mortality rates by month of departure for the 56,042 immigrants that left the staging areas between 1847 and 1868.

the year have any effect on mortality rates? The Willie and Martin hand-cart companies accounted for almost 39% of the immigrants crossing by handcart. These two companies had a mortality rate of about 16.5%. The extremely high mortality rates in these two companies are well known. Figures 6 and 7 show that mortality rates for the other handcart compa-nies were considerably smaller (about 4.5%) but still (statistically signifi-cantly) higher than the mortality rates of the wagon train immigrants (about 3.4%). These are overall rates and do not adjust for any difference in ages of the handcart pioneers versus the wagon train pioneers. Fig-ure 8 gives the mortality rates by departure month.[25]

Causes of Death

Less than 20% of the deaths report a cause, and some of these reported causes may be in error. Given the limitations in sample size, sample representativeness, and nineteenth-century medical diagnostics and disease classification, we cannot do a statistical study of cause-specific mortality rates for immigrating pioneers. However, a brief survey of cause data is interesting because of what is and what is not tabulated. Of those reported causes, over 50% list cholera or diarrhea as cause of death (see Rushton[26]). Of the remaining handful of deaths where cause is listed, the most prevalent are "run over by a wagon," "stampeded," "consumption," "drowned," "fever," and "accidentally shot." It seems clear that there were considerable risks of death by some form of accident.

There are only 4 deaths reported from "Indians," 2 people were reportedly "eaten by wolves," 2 deaths from a poisonous bite or scor-pion sting, and one murder. Weather factors, freezing, and exposure such as were prevalent in the Willie and Martin handcart companies were usually not reported in these data. Although it is difficult to give a detailed analysis of such scant data, the picture seems to show that deaths from accidents were common, while deaths from "Indians" and "wolves" were not.

Conclusions

Many have heard of inspiring but heart-wrenching pioneer stories of spe-cific individuals and families. Statistical tabulations of data gathered from

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25. Brigham Young's vanguard company left in April 1847 and had no deaths.
26. Patricia Rushton, "Cholera and Its Impact on Nineteenth-Century Mor-mon Migration," *BYU Studies* 44, no. 2 (2005): 123–44.

records and diaries do not illustrate the difficulties, perils, and miracles experienced by the pioneers. Some of the volunteers working on obtaining these data were brought to tears while they read through the journal entries. Though we cannot pretend to understand such trials and blessings from the tables and figures presented here, surveying many journals in gathering these data has revealed sketches of the trials and the tender mercies of the Lord. The reader can access such accounts in the Mormon Pioneer Overland Travel database available online. Here we have simply summarized the statistics that can be obtained to date.

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Psalm of the Expectant Mother

I begged my Lord for any desert acre,
and behold what I am become!
No barren fig, this: a tree of life,
a sporocarp, pod, Aquarius's vessel endlessly pouring.

I am swept to sea with nature's tide,
yet tumbling in the foam, retain the caul
of certainty that covereth mine head.
So powerless never, nor never so content.

And within, my magnum opus,
a spark, a tiny soul, homunculus;
like begetting like, begetting life.

My form yields to the blinding glory of my function—
what gardener, I, who grieves the blossoms?
But turn thy face from spring, O woman,
and wait for harvest.

—Maria Davis

"The Redemption of Zion Must Needs Come by Power"

Insights into the Camp of Israel Expedition, 1834

Matthew C. Godfrey

The story of the Camp of Israel, better known as Zion's Camp, has been told multiple times by multiple historians in multiple settings.[1] The tale of Joseph Smith leading a group of over two hundred individuals to Missouri to reclaim Mormon lands lost after Jackson County mobs forced the Saints from the county has assumed almost mythical status, capturing the attention of many members of The Church of Jesus Christ of Latter-day Saints, especially in the last fifty years. Articles in Church periodicals regularly appear, and Sunday School manuals for the Church devote large parts of lessons to the camp.[2] Yet details about some aspects of the camp are still somewhat murky, especially in terms of its membership, its funding, its provisioning, and its intentions. This article will point out insights into these things that those of us working on the Joseph Smith Papers have discovered as we have examined documents pertaining to the camp. Such insights include how camp members funded much of the expedition themselves, the fact that the camp appeared to have adequate food and other provisions, and indications that Missouri Governor Daniel Dunklin's refusal to call up the state militia to assist the expedition was more complicated than has previously been depicted. This article also examines pertinent sources generally used by scholars to reconstruct the history of the camp, pointing out issues that some of these sources have, while also showing that Zion's Camp was not a contemporary name of the expedition. Even though it appears the history of the Camp of Israel has been well told, historians can still glean many new details from the available sources.

Overview

The Camp of Israel had its roots in the violence that ejected Church members from Jackson County, Missouri, in the fall of 1833. A July 1831 revelation had first designated Jackson County as the location of the City of Zion, the New Jerusalem that the Saints would construct and gather to in preparation for the Second Coming of Jesus Christ. From that time to the summer of 1833, over a thousand members had gathered to Jackson County.[3] Such a large influx of members irritated some of the non-Mormon residents of the county, who were concerned about the political power of such a group and especially were offended when William W. Phelps published an article in the Church's periodical *The Evening and the Morning Star.* This editorial, entitled "Free People of Color," was taken as encouragement from the Church of the migration of free blacks into Missouri, which was a slave state. In July 1833, Jackson County citizens came together and destroyed the Church's printing office, scattered goods from the Church's storehouse, and tarred and feathered Edward Partridge, the bishop in Missouri, and Charles Allen, a member of the Church. They also demanded that the Saints remove themselves from the county by April 1834. Although Church leaders initially agreed to these demands, they announced in October 1833 that they planned to stay. In response, Jackson County citizens organized in late October, and additional violence commenced against Church members and their property. Ultimately, members were forced to flee into surrounding counties, the majority of them going to Clay County.[4]

After the flight, Church leaders petitioned Joseph Smith for advice, Smith dictated a revelation in December 1833 that presented a parable of a lord who had lost his vineyard to his enemies. In the parable, the lord instructs a servant to gather up the strength of his house and reclaim the vineyard.[5] Copies of this parable were distributed to Church members and sent as well to Missouri Governor Daniel Dunklin.[6] In January 1834, the Missouri saints sent Parley P. Pratt and Lyman Wight to Kirtland, Ohio, to inform Joseph Smith and other Church leaders of their plight. At the February high council meeting where Pratt and Wight spoke, Joseph Smith declared his intent of "going to Zion to assist in redeeming it" and then "called for volunteers to go with him."[7] That same day, a February 1834 revelation stated that Joseph Smith was the servant in the December 1833 parable and instructed Smith to recruit up to five hundred men to go to the aid of Church members who had been expelled from Jackson County. The group would settle on land purchased in the

county and vicinity and provide protection against any "enemies" that sought to drive the Saints from the "goodly land."[8]

   To fulfill these instructions, Joseph Smith and a contingent of men from Kirtland, Ohio, departed in May 1834; another contingent was recruited in Pontiac, Michigan Territory, by Hyrum Smith and Lyman Wight and joined the Kirtland group in June 1834 at the Allred settlement in Missouri. The camp totaled approximately 205 men and around twenty-five women and children.[9] It entered Missouri in June 1834 but was disbanded at the end of June after a revelation stated that it was not yet time for Zion's redemption. An outbreak of cholera hastened the camp's dispersal and ended up killing thirteen participants and two other Church members.[10] Joseph Smith led the expedition as the "Commander in Chief of the Armies of Israel."[11] By the first of August 1834, he and many camp members had returned to Kirtland.[12]

Contemporary Records and Later Narratives[13]

There appear to be few contemporary accounts of the expedition; the official journal of the camp, kept by Frederick G. Williams, was lost at some point, and few camp members appear to have kept journals of the trip that have survived.[14] Joseph Smith wrote two letters to Emma Smith while on the expedition, and there are also other documents prepared by Smith and others after arriving in Missouri in June 1834.[15] In addition, several newspaper accounts of the camp exist. These provide details about the expedition and about how individuals and communities perceived the camp.[16] Minutes of hearings held before the Kirtland high council in August 1834 also give pertinent information about the expedition. These hearings were held because of charges Sylvester Smith made against Joseph Smith for committing improprieties while leading the expedition. Sylvester Smith was tried before the Kirtland high council for his membership because of these accusations, so the minutes focus on his conduct in the camp and do not provide a day-by-day account of the journey, although there are some interesting details.[17] Moreover, several members of the expedition prepared reminiscences at some point about their experiences, but most of these came years after the camp disbanded.[18]

   The details that provide the framework for most historical discussions of the Camp of Israel generally come from three main sources: a record dictated by Heber C. Kimball to William Clayton, one given in the manuscript history of the Church and later published in B. H. Roberts's *History of the Church,* and one provided by George A. Smith.[19]

The Kimball account was apparently produced sometime in 1840; the manuscript history account, written by Willard Richards, sometime in 1843 (although Thomas Bullock then edited it in 1845); and the Smith account sometime between 1857 and 1875.[20] Kimball's account provides information about the camp's organization and provisioning, while also giving dates as to when the camp entered states and towns. However, some details are incorrect, such as giving the name of one individual who talked to Joseph Smith about the camp's intentions as "Colonel Searcy," rather than John Sconce.[21] In addition, Kimball's record was written not long after the Saints had been driven out of Missouri in 1838 and 1839 and seems to be influenced by those events, including the issuance of the "Extermination Order" by Missouri Governor Lilburn W. Boggs in 1838. For instance, Kimball noted his feelings of trepidation as he left Kirtland with the Camp of Israel in May 1834, stating that he was "not expecting to ever see" his family "again as myself and brethren were threatened both in that country [Ohio] and in Missouri by the enemies, that they would destroy us and exterminate us from the land."[22] Although Jackson County citizens certainly used violence to drive the Saints from the county, there is little contemporary evidence that, in 1834, residents of Missouri wanted to exterminate all Church members from Missouri. Historians should be aware of how events that had transpired in Missouri may have affected Kimball's recounting of the expedition.

When Kimball's account was published in 1845 in the *Times and Seasons*, some changes and additions were made to it. For example, after recounting the storm at Fishing River that saved the expedition from an attack by a mob, the history states that the camp met with several Missouri church members and "received much information concerning the situation of the brethren who had been driven from Jackson county, and the fixed determination of our enemies to drive or exterminate them from that county." This paragraph is not present in the manuscript version of Kimball's account, and it is not clear whether Clayton was responsible for the additions or whether Kimball requested that they be made.

Three years after Kimball produced his account, Willard Richards wrote an account of the Camp of Israel in Joseph Smith's manuscript history. One of the useful features of this version is that it integrates letters written by Missouri church leaders to Governor Daniel Dunklin and other Missouri authorities into the record, thereby providing not just a history of the Camp of Israel, but a history of what Missouri

leaders were doing as the camp marched towards Jackson County. As with the rest of the manuscript history, the account of the Camp of Israel is presented in Joseph Smith's voice, but it does not appear that he had much involvement in its composition.[23] In 1845, after Smith's death, this account was heavily edited by Thomas Bullock and Richards, with the help of George A. Smith, one of the participants in the camp. On August 21, 1845, for example, the Church Historian's Office journal notes that Bullock and Richards were "examining the camp journey" in the history. "G. A. Smith was present part of the time" when this occurred.[24] On August 25, 1845, the journal records that Bullock worked with Smith "to revise Zions Camp journey."[25] It was around this time that Smith himself first put together "a series of notes" about the camp that he provided to Richards.[26]

Some ten to thirty years after composing these notes—which he acknowledged he put together "from memory"[27]—Smith used them to arrange a day-by-day narrative of the Camp of Israel expedition. Smith acknowledged that he did not keep a journal on the expedition. Regardless, his narrative contains numerous details not present in other accounts, including the manuscript history and Kimball's narrative. Although many of these details contain much human-interest material, historians should be wary of using them, especially if details are not corroborated by other accounts, given the amount of time that passed before Smith wrote down his report. For example, Smith stated that on May 31, 1834, as the camp traveled between Springfield and Jacksonville, Illinois, a man gave him $100 for the expedition's use.[28] Financial accounts of the camp do not include a record of any such donation, making such a detail suspect.[29] Smith also states that Cornelius Gilliam, the sheriff of Clay County, entered the Camp of Israel on June 22, 1834. According to Smith's account, the only notable thing about Gilliam's appearance was that Joseph Smith "made himself known" to Gilliam, "which he had not done to any but our own camp from the time we left Kirtland."[30] Contemporary records, however, show that Gilliam actually entered the camp on June 21, 1834, and that camp leaders gained much intelligence from him of the hostility of Missouri residents toward the camp. Joseph Smith also provided to Gilliam a statement declaring the camp's peaceful intentions in hopes of alleviating some of this hostility.[31] Although Smith's record is an interesting account, it should be used with caution by historians and vetted against more contemporary sources—as should the other reminiscent versions of the camp.

The Name of the Camp

Most Church members and scholars today use the name "Zion's Camp" to refer to the Camp of Israel. However, records indicate that "Zion's Camp" was not a contemporary name; instead, the "Camp of Israel" was generally used. This name stemmed from the February 1834 revelation instructing Joseph Smith to form the camp. That revelation declared that Smith was to lead the expedition "like as Moses led the children of Israel."[32] When Joseph Smith announced his intentions of forming the expedition, the Kirtland high council nominated him as the "Commander in Chief of the Armies of Israel."[33] Accordingly, when Smith wrote a letter to his wife Emma while on the expedition, he stated that he was in the "Camp of Israel in Indiana State town of Richmond."[34] Likewise, Orson Hyde titled a financial account he prepared in August 1834 of Joseph Smith's contributions to the camp "Joseph Smith Junr. in a/c with the Camp of Israel."[35] Some contemporary records use a different title—Frederick G. Williams's discharge, for example, calls the group "the Army of the Lords house,"[36] while Nathan B. Baldwin's discharge gives the title as the "army of Zion"[37]—but no contemporary sources have been located that call the expedition "Zion's Camp."

However, associating those who marched with the Camp of Israel with Zion occurred relatively quickly. In February 1835, Joseph Smith convened a meeting in Kirtland, Ohio, to ordain "those who went to Zion, with a determination to lay down their lives" to the ministry. The individuals "who went to Zion" were then recognized by the congregation in attendance.[38] Thereafter, those who participated in the Camp of Israel received blessings from Joseph Smith and other Church leaders, and some of these blessings were designated as "Zion blessings."[39] In addition, those who went on the expedition were sometimes referred to in 1835 as "sons of Zion."[40]

The specific use of Zion in naming those who had gone with the Camp of Israel suggests that the expedition may have been referred to as "Zion's Camp" fairly early after its conclusion. However, there are few clear references to that exact term until 1840, when Heber C. Kimball called the expedition the "camp of Zion" in his history of the expedition.[41] Wilford Woodruff also referred to the expedition as "Zion's Camp" in an 1845 letter published in the *Times and Seasons,* and an 1845 entry in the Church Historian's Office journal used the title "Zions camp" as well.[42] After the Saints departed Nauvoo for the Great Basin in 1846 and 1847 in what was called the Camp of Israel, the name "Zion's Camp" seems to have been applied more frequently to the Missouri expedition

to distinguish it from this westward migration.[43] By the 1850s, Church leaders were using the name "Zion's Camp" in their discourses, and it appears to have been in regular use thereafter.[44]

Organization and Funding

Documents published for the first time in the Joseph Smith Papers shed light on the organization and funding of the Camp of Israel, topics which a few reminiscences address. Heber C. Kimball, for example, gave the following description: "We made regulations for travelling and appointed a paymaster whose name was Frederic G. Williams, and put all of our monies into a general fund. Some of the brethren had considerable, and some had little or none, yet all became equal. . . . [W]e were divided into companies of 12 each and captains appointed over each company."[45] Likewise, Nathan Baldwin remembered consecrating money to a general fund, being divided into companies of twelve men each, and having specific duties assigned to individuals within those companies. "I was one of the two to supply water," he explained, and "others had their duties appointed, some to pitch and strike tent[s], some to provide wood, and others to attend horses."[46]

Shedding more light on the camp's organization are two documents available on the Joseph Smith Papers website[47] that will be published in 2016 in volume four of the Documents series. These are two financial accounts compiled by Orson Hyde in August 1834 to submit as evidence in the Kirtland high council's trial of Sylvester Smith. When Hyde submitted the records to the high council, he stated that they were "taken from documents kept during the journey by brother F. G. Williams." Williams, in turn, told the council "that the account exhibited was correctly taken from his accounts."[48]

The accounts provide significant information about the camp. First, they confirm that camp members really did pool their money in a general fund. The accounts show donations by approximately 170 members, some of whom, like John Tanner, contributed as much as $170 while others, such as Allen Avery, contributed only four cents. Interestingly, the account lists only one female member of the expedition as donating money: Jane Clark, who, according to scholars, was a single woman about whom little else is known.[49] Clark is listed as contributing $50 to the general fund, an amount that exceeded the majority of donations of other members. Other individuals are listed as donating nothing. Although some undoubtedly had nothing to contribute, others did not donate because, as Joseph Holbrook later remembered, they were traveling with

their families and those with families were not asked to contribute anything to the general fund. Instead, they were to take care of their families' needs by themselves.[50] In all, the accounts show that camp members donated $1,659.59 to the camp's general fund, supplementing the approximately $330 that other Church members donated.[51] In addition, Joseph Smith contributed $644.28 to the expedition in cash—obtained from Martin Harris, sales of the Book of Mormon, and subscriptions to *The Evening and the Morning Star*—and in other property, such as horses, a watch, and the use of harnesses and wagons. Smith's contributions appear to have been kept separate from the camp's general fund.[52]

The accounts also provide the only contemporary record of who was on the expedition and who served in the role of captains of individual companies. One of the accounts lists twenty-eight men as captains, but it does not list how many men were in a company.[53] Some reminiscences state that there were ten men per company, although, as noted above, both Heber C. Kimball and Nathan Baldwin remembered twelve as the number. Joseph Smith stated in a June 1834 letter to his wife Emma that the camp was "divided into messes of 12 or 13." If there were really twenty-eight captains who each led twelve men, the number of the camp would have been 336 men. However, it appears this number is high, as on June 4, 1834—before uniting with the contingent of approximately twenty individuals coming from Michigan Territory—Joseph Smith gave the total number of men in the camp as 170, although Parley P. Pratt and others were still recruiting along the way.[54] Scholars have generally estimated that there were probably about 230 individuals in the camp (including women and children),[55] suggesting that not all of the twenty-eight captains were serving at once but that some captains may have been replaced throughout the journey. However, Joseph Holbrook remembered that there were not only captains over the smaller groups, but also "a captain of fifty and over each hundred, a captain, according to the ancient order of Israel."[56] This could account for twenty-eight captains and still place the number of men in the camp at around 250. The financial accounts themselves list only 177 individuals, indicating that not all participants are represented in those documents. Particularly, it does not appear that those recruited in Michigan Territory are on the list, nor are women and children (outside of Jane Clark) mentioned. Since 177 corresponds closely to the number of the camp given by Joseph Smith on June 4, 1834, this may mean that the list is a representation of those individuals who departed from Kirtland.[57] Whatever the case, this is the only extant contemporary listing of participants, providing scholars with an excellent beginning point to reconstruct camp membership.

Some histories emphasize that the Camp of Israel was ill-provisioned, especially in terms of food. George A. Smith, for example, later remembered experiencing frequent hunger along the journey, including one occasion where, he said, he was so "weary, hungry and sleepy that I dreamt while walking along the road of seeing a beautiful stream of water by a pleasant shade and a nice loaf of bread and a bottle of milk laid out on a cloth by the side of the spring."[58] Based on these accounts, some historians have concluded that "feeding the camp was one of the most persistent problems" and that participants "were often required to eat limited portions of coarse bread, rancid butter, cornmeal mush, strong honey, raw pork, rotten ham, and maggot-infested bacon and cheese."[59] Yet other accounts seem to indicate that obtaining sufficient food was not a problem. Heber C. Kimball, for example, noted that there were times when the camp's provisions were "scanty," but "generally," he stated, the camp had a "very good" living, as expedition members "purchased our own flour, and baked our own bread and cooked our own victuals."[60] Likewise, Joseph Smith intimated to Emma in his June 4 letter that the camp had plenty of food. "We buy necessaries such as butter, sugar and honey, so that we live as well as heart can wish," Smith declared, while also explaining that they had been able to purchase flour, bacon, and milk along the way.[61] According to the camp's financial accounts, captains were given periodic distributions of money from the general fund, presumably to be used for food and other provisions. The amount distributed in this way was approximately $1,110, or about $5 per camp participant for what was about a two-month journey. This was not a lot of money, and some accounts discuss relying on contributions from individuals and families along the way for milk and other necessities.[62] Given food prices at the time, and with these other contributions, it appears that the camp probably had a sufficient, if rather lean, amount of food.[63] Whether or not there was sufficient food may have depended on where the camp was and what access it had to established settlements; the expectations of camp members as to how much food should be provided may have influenced their recollections of provisioning as well.

Objectives and Goals

Looking closely at other contemporary records surrounding the Camp of Israel provides other insights. For example, the objectives of the Camp of Israel have sometimes been mischaracterized. Some histories focus on the expedition's efforts to bring supplies to Church members in Clay County;[64] others state rather vaguely that the camp would "help reinstate the Missouri Saints on the Jackson County lands from

which mobs had driven them."[65] However, the expedition's goals were more specific than this and had their roots in correspondence between Church leaders and Missouri authorities from late 1833 and early 1834. According to Missouri Attorney General Robert Wells, in late 1833, Missouri Governor Daniel Dunklin initially showed some inclination to call up the state militia to protect Church members driven from their land.[66] That Dunklin would have considered using the militia is not surprising. In the antebellum era of United States history, volunteer militias were often used to quell civil disturbances. Under the Militia Act of 1792, the president of the United States could "call out the militia in case of invasion or insurrection, but only on the request of the governors or legislatures of the states."[67] If a state militia was insufficient to suppress a threat, the president could also "call forth and employ such numbers of the militia of any other state or states most convenient thereto."[68] Governors also had the ability to call up the militia of their respective states when they believed it necessary to preserve peace. Accordingly, in the 1830s and 1840s, militias were used to put down mobs in Boston, Massachusetts; Brooklyn, New York; Hoboken, New Jersey; Ellsworth, Maine; Louisville, Kentucky; New Orleans, Louisiana; and Philadelphia, Pennsylvania. Even so, militias were seldom used when mobs attacked black neighborhoods, abolitionists, or other groups deemed beyond the pale of white communities.[69]

Dunklin, who had been born in South Carolina, was an attorney from Potosi in eastern Missouri. A Jacksonian Democrat, he had served as lieutenant governor of Missouri from 1828 to 1832 before being elected governor in 1832 with Lilburn W. Boggs, a resident of Independence, as his lieutenant governor. Dunklin won the election with the support of Missouri's rural areas; St. Louis voted against him. He was an "ardent states' rights advocate" who "expressed an almost overwhelming fear of national encroachment upon state sovereignty," although he was also "a man of modest and retiring disposition."[70]

In February 1834, Dunklin ordered a militia to guard Mormon witnesses who wanted to testify before a Jackson County grand jury about the depravations they had suffered.[71] At that time, Dunklin also told state militia captain David R. Atchison that some Church members might "seek the opportunity . . . to return in safety to their late homes in Jackson County" under the militia's guard. If so, Dunklin continued, Atchison and the militia should comply with their requests.[72] Perhaps because stiff opposition to the Saints still existed in Jackson County,[73] no Saints appeared to seek this protection, and by April 1834, Dunklin

told Missouri church leaders that "the laws, both civil and Military, seem deficient in affording your society proper protection."[74] Church members still held out hope, however, that, at some point, Dunklin would provide a military force to escort them back to their lands.[75]

Dunklin's seeming willingness to call out the militia was key in the formation of the Camp of Israel's goals, which were clearly outlined in a May 10, 1834, letter Oliver Cowdery and Sidney Rigdon wrote to Church members throughout the United States. The group was to march to Missouri and wait for Governor Dunklin to muster a portion of the state militia. Together, the state militia, the Camp of Israel expedition, and the Saints who had been dispossessed of their lands would enter Jackson County and regain the lost land. After the militia was discharged, the volunteers recruited by Joseph Smith would remain and protect Church members from any future attacks, while also helping to plant crops for harvest. They would carry with them "a small supply of money" with which "to purchase food till grain can be raised." In no circumstances were Church members to use aggression, but those going to Missouri were told to carry "sufficient weapons to defend yourselves in case of an attack."[76]

The defensive nature of the Camp of Israel—and the fact that they were only to protect Saints who had been restored to their land by the state militia—was emphasized by a letter that Missouri church leaders sent to Governor Dunklin in late April. According to this letter, the Church was sending "a number of our brethren, perhaps 2 or 3 hundred," who would "remove to Jackson Co in the course of the ensuing summer" but would use force only if faced with "another unparallelled attack from the mob." The camp was necessary, the letter continued, because Dunklin had told them that he could not call "up a military force 'to protect our people in that county without transcending his powers.'" Calling up the militia as a guard was within the governor's power; keeping that militia mustered solely for the protection of Church members was not.[77]

It is possible that Joseph Smith believed that the Camp of Israel would become part of the Missouri state militia after Dunklin mustered it. However, the fact that few in the Camp of Israel were actually residents of Missouri was a bone of contention with many Missourians as the expedition approached. A group of citizens from Lafayette County, Missouri, which adjoins Jackson County, for example, sent several resolutions to Joseph Smith expressing their displeasure with the "foreign troops who call themselves Mormons" that were marching to Missouri. If the "Original Mormons"—meaning those who were Missouri residents—took up arms against Jackson County, the resolutions

declared, Lafayette County citizens would not interfere. However, "so soon as those foreign mormons enter the County of Jackson," they would "interfer[e] and if practicable prevent it."[78] It is difficult to believe that Joseph Smith would not be aware of the impropriety of residents from another state joining a different state's militia, especially given the strong feelings of western Missouri residents against the "foreign" members of the Camp of Israel.

Despite the pronouncements by Church leaders, including Joseph Smith, of the Camp of Israel's defensive intentions, the armed expedition provoked fear, uncertainty, and contempt among observers. Some believed that the expedition was coming to exact revenge on Jackson County citizens. "*The Mormon war* in Missouri is about to be renewed," the *Painesville Telegraph* in Ohio reported, stating that the camp intended "to 'expel the infidels from the holy land.'"[79] Another Ohio newspaper similarly stated that the expedition was on "a *crusade* to recover the *holy land.*"[80] In Missouri, one resident claimed that the "object" of the camp "was to butcher a portion of our citizens."[81] Dunklin, meanwhile, called the expedition illegal. "The Mormons have no right to march to Jackson county in arms, unless by the order or permission of the commander-in-chief," he declared. "Men must not 'levy war' in taking possession of their rights, any more than others should in opposing them in taking possession."[82] Although some observers seemed to regard Church members as within their rights to provide reinforcements to the Saints in Missouri, especially given their treatment at the hand of Jackson County residents, others clearly saw the camp's march as an unlawful venture.

Daniel Dunklin and the Camp of Israel

Because Dunklin's call-up of the state militia was an essential component to placing the Saints back on their land, Joseph Smith and other camp participants were disappointed when the governor apparently refused to keep what they considered his "promise." According to George A. Smith, Joseph Smith sent Parley P. Pratt and Orson Hyde to visit the governor in Jefferson City, Missouri, on June 12, 1834. When they returned to the Camp of Israel a couple of days later, they "reported that the governor, Daniel Dunklin, refused to fulfill his promise of reinstating the brethren on their lands in Jackson County."[83] According to Pratt's later recollection in the mid-1850s, the governor told them that he did not "dare" call out the militia "for fear of deluging the whole country in civil war and bloodshed."[84] However, the situation was more complicated

than that. Charles C. Rich noted in his contemporary journal that after Pratt returned from visiting Dunklin, the expedition "stoped and held a Council." It then "Decided that we should go on armed and equiped," suggesting that perhaps Pratt's news was not as negative as has been depicted—or at least not negative enough to change the camp's intentions.[85] Moreover, in August 1834, William W. Phelps wrote to Dunklin, indicating that he believed the governor had been "ready" to "guard" the Saints into Jackson County upon their request, which apparently had not come.[86] Edward Partridge provided more details, recalling that a council of Church leaders met "after the arrival of the brethren from the east" and decided "that it would not be wisdom to ask the Governor to set them back at that time," given "the great wrath of the people, south of the river."[87] These accounts suggest that Phelps and Partridge may not have been aware of Pratt and Hyde's visit to the governor. However, Charles C. Rich recorded that the camp met Partridge on June 15, after Pratt and Hyde had returned from Jefferson City. It is unlikely that Partridge would not have been informed of what had transpired with the governor.[88]

What actually happened, then? Did Hyde and Pratt make a formal request of the governor or did they merely try to get a feeling for what his position would be on calling up the state militia? And what were Dunklin's true feelings about using the militia? Although we may never know the answer to the first two questions, contemporary sources provide some illumination of the third. It appears that Dunklin was interested in using the militia only as a last resort and that he wanted to see how negotiations between a committee of Jackson County citizens and Missouri church leaders played out first. On June 6, 1834, Dunklin had written a letter to John Thornton, a prominent Democrat and attorney in Clay County who had served as speaker of the Missouri House of Representatives from 1828 to 1830. Thornton was working with Alexander Doniphan, David R. Atchison, and Amos Rees—attorneys hired as legal counsel for the Missouri saints—to effect a compromise between Church members and other residents of Jackson County. Because Thornton had "manifested a deep interest in a peaceable compromise of this important affair," Dunklin appointed him "an aid to the commander-in-chief" and asked him to "keep a close correspondence" with both Missouri church leaders and other Jackson County residents about a compromise.[89]

Dunklin also stated in his letter to Thornton that "a more clear, and indisputable right does not exist, than that [of] the Mormon people, who were expelled from their homes in Jackson county, to return and live on their lands." For Dunklin, there were four possible solutions to

the problem. The Saints could sell their lands in Jackson County and settle elsewhere; Jackson County citizens could be required to obey the laws and let Church members return to their lands; or both sides could agree "to take separate territory" in Jackson County "and confine their members within their respective limits, with the exception of the public right of egress and regress upon the highway." If none of these options were acceptable, Dunklin continued, "the simple question of legal right would have to settle it," and that would probably mean calling up the state militia to restore Church members to their lands. Clearly, Dunklin saw this as the last option, although Joseph Smith and others in the Camp of Israel seemed to see it as the only option.[90]

As the situation played out, negotiations between the two sides broke down, but Dunklin still did not use the militia. Perhaps Church leaders did not request it after this time, but in 1835, Smith and other Church leaders still held to the possibility that the governor would fulfill his "promise."[91] It is also possible that Dunklin's feelings about the Church and those living in Jackson County prevented him from making a call-up. In an August 1834 letter, Dunklin stated that he had "no regard for the Mormons, as a separate people" and had "an utter contempt for them as a religious sect," but he had "much regard for the people of Jackson county, both personally and politically," especially since "many of them" were his "personal friends"—including Lilburn Boggs, his lieutenant governor. Although Dunklin insisted that such considerations were "secondary" to his duties as governor, it is difficult to believe that these views did not influence how he handled the Mormon situation.[92] Because Jackson County residents came under some criticism for their actions against the Mormons, including from some Missouri newspapers,[93] Dunklin could not ignore the problem entirely, but he apparently did not feel strongly enough about the matter to take decisive action. Whatever the case, Dunklin's decision of whether or not to call out the state militia was clearly more complicated than Parley P. Pratt and George A. Smith indicated.

If the militia would not escort the Saints back to their land, the Camp of Israel would be unable to fulfill its objective of guarding Church members once their property was restored. Essentially, Dunklin's hope to see negotiations through to the end negated what the Camp of Israel could do, especially since Joseph Smith was unwilling to see the camp go on the offensive. As Smith told a delegation of citizens from Clay County, Missouri, on June 21, 1834, "It is not our intentions to commence hostilities against any man or boddy of men; it is not our intention to

injure any ma[n]'s person or property, except in defending ourselves."[94] Despite these peaceful pronouncements, newspaper and other reports that the expedition intended to enter Jackson County by force had enraged many Jackson County citizens, as well as those of adjoining counties. One individual commented that if the camp crossed the Missouri River into Jackson County, there would be "a battle, and probably much blood shed."[95] Given these realities, Joseph Smith believed that his only option was to disband the Camp of Israel "till every effort for an adjustment of differences between us and the people of Jackson has been made on our part." Following a revelation directing him to disband the camp, he did so.[96]

Conclusion

The Camp of Israel highlights the importance that Smith placed on the redemption of Zion in 1834. Although numerous historians have written about the expedition, examining little-used sources as well as already well-known documents can illuminate many aspects of the camp, including its name, its organization, its funding, its objectives, and why it ultimately disbanded without taking any action for the Missouri saints. The insights presented in this paper, together with others forthcoming in *Documents, Volume 4* of the Joseph Smith Papers, will hopefully help direct scholars to additional understanding as they explore the history of the expedition.

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1. See, for example, Roger D. Launius, *Zion's Camp: Expedition to Missouri, 1834* (Independence, Mo.: Herald Publishing House, 1984); James L. Bradley, *Zion's Camp 1834: Prelude to the Civil War* (Salt Lake City: Publishers Press, 1990); Alexander L. Baugh, "Joseph Smith and Zion's Camp," *Ensign* 35 (June 2005): 42–47; Warren A. Jennings, "The Army of Israel Marches into Missouri," *Missouri Historical Review* 62 (January 1968): 107–35; Andrew Jenson, "Zion's Camp," *The Historical Record* 7 (June 1888): 577–91; Stanley B. Kimball, "Zion's Camp March from Ohio to Missouri, 1834," *Ensign* 9 (April 1979): 45–49; Heather M. Seferovich, "Zion's Camp: A Blessed Trial," *Mormon Heritage Magazine* 2 (May/June 1995): 24–29; David F. Boone, "Zion's Camp:

A Study in Obedience, Then and Now," in *Sperry Symposium Classics: The Doctrine and Covenants,* ed. Craig K. Manscill (Provo, Utah: Religious Studies Center, Brigham Young University, 2004), 248–74; Andrea G. Radke, "We Also Marched: The Women and Children of Zion's Camp, 1834," *BYU Studies* 39, no. 1 (2000): 147–65; and Craig K. Manscill, "'Journal of the Branch of the Church of Christ in Pontiac, . . . 1834': Hyrum Smith's Division of Zion's Camp," *BYU Studies* 39, no. 1 (2000): 167–88. ^

2. *Doctrine and Covenants and Church History: Gospel Doctrine Teacher's Manual* (Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 1999), 150–56. ^

3. Revelation, 20 July 1831 [D&C 57], in Matthew C. Godfrey and others, eds., *Documents, Volume 2: July 1831–January 1833,* vol. 2 of the Documents series of *The Joseph Smith Papers,* ed. Dean C. Jessee, Ronald K. Esplin, and Richard Lyman Bushman (Salt Lake City: Church Historian's Press, 2013), 7–12; "The Elders Stationed in Zion to the Churches Abroad, in Love, Greeting," *Evening and the Morning Star* 2 (July 1833): 110. ^

4. Parley P. Pratt and others, "'The Mormons' So Called," *Evening and the Morning Star,* Extra, February 1834, 137–38; "A History, of the Persecution," in Karen Lynn Davidson, Richard L. Jensen, and David J. Whittaker, eds., *Histories, Volume 2: Assigned Histories, 1831–1847,* vol. 2 of the Histories series of *The Joseph Smith Papers,* ed. Dean C. Jessee, Ronald K. Esplin, and Richard Lyman Bushman (Salt Lake City: Church Historian's Press, 2012), 208–23; "Free People of Color," *Evening and the Morning Star* 2 (July 1833): 109; John Whitmer and William W. Phelps to Oliver Cowdery and Joseph Smith, 29 July 1833, in Joseph Smith Letterbook, 2:52–55, MS 155, Joseph Smith Collection, Church History Library, The Church of Jesus Christ of Latter-day Saints, Salt Lake City (hereafter cited as CHL). ^

5. Edward Partridge to Joseph Smith, n.d. [c. November 14–19, 1833], MS 155, Joseph Smith Collection; Revelation, 16 and 17 December 1833 [D&C 101], in Robin Scott Jensen, Robert J. Woodford, and Steven C. Harper, eds., *Revelations and Translations, Volume 1: Manuscript Revelation Books,* vol. 1 of the Revelations and Translations series of *The Joseph Smith Papers,* ed. Dean C. Jessee, Ronald K. Esplin, and Richard Lyman Bushman (Salt Lake City: Church Historian's Press, 2009), 343–55. ^

6. Eber D. Howe, *Mormonism Unvailed [sic]: or, a Faithful Account of That Singular Imposition and Delusion, from Its Rise to the Present Time* (Painesville, Ohio: By the author, 1834), 155; Joseph Smith, Sidney Rigdon, and Frederick G. Williams to Church Brethren, January 22, 1834, in Joseph Smith Letterbook, 1:79–81. ^

7. Kirtland Council Minute Book, February 24, 1834, MS 3432, CHL. ^

8. Parley P. Pratt, *The Autobiography of Parley Parker Pratt* (New York: Russell Brothers, 1874), 114; Revelation, 24 Feb. 1834 [D&C 103], in Jensen, Woodford, and Harper, *Revelations and Translations, Volume 1,* 634–39. ^

9. Manuscript History of the Church, vol. A-1, 477–78, CHL; Heber C. Kimball, "The Journal and Record of Heber Chase Kimball an Apostle of Jesus Christ of Latter Day Saints," 11, MS 627, CHL; Radke, "We Also Marched," 149. ^

10. Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:56; Revelation, 22 June 1834 [D&C 105], in Jensen, Woodford, and Harper, *Revelations and Translations, Volume 1,* 374–79; Nathan B. Baldwin, reminiscence, 14, MS 499, CHL; Joseph Holbrook, reminiscence, 38, MS 5004, CHL; George A. Smith, History, 39–40, 50, MS 1322, CHL; Max H. Parkin, "Zion's Camp Cholera Victims Monument Dedication," *Missouri Mormon Frontier Foundation Newsletter* 15 (Fall 1997): 4–5. ^

11. Kirtland Council Minute Book, February 24, 1834. ^

12. Manuscript History of the Church, vol. A-1, 528. ^

13. Much of the research for this section was conducted by Mitchell Schaefer, an intern with the Joseph Smith Papers in 2013. ^

14. George A. Smith, History, 43. A couple of exceptions to this are the diaries of Moses Martin and Wilford Woodruff, both of which appear to have been kept while the two were on the expedition. Charles C. Rich, who was with the Michigan contingent of the camp, also appears to have kept a contemporary journal. "1834 Journal of Moses Martin," MS 1986, CHL; Wilford Woodruff, Journal and Papers, 1831–98, MS 1352, CHL; "Original Manuscript Diary of the Mormon Journey to Zion's Camp, Missouri," CHL. ^

15. Joseph Smith to Emma Smith, May 18, 1834, Joseph Smith materials, Community of Christ Library-Archives, Independence, Missouri; Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:56–59; Joseph Smith and others, Declaration, June 21, 1834, MS 155, Joseph Smith Collection; Resolutions of Committee from Lafayette County, Missouri, June 23, 1834, MS 155, Joseph Smith Collection; Joseph Smith to John Thornton, Alexander Doniphan, and David R. Atchison, June 25, 1834, in Manuscript History of the Church, vol. A-1, 505–6. All of these documents are included in the forthcoming *Documents, Volume 4,* of the Joseph Smith Papers. ^

16. See, for example, Anti-Force Religion, "Mormonism," *Huron Reflector* (Norwalk, Ohio), May 20, 1834; "The Mormonites," *Christian Reflector* (Boston, Mass.), June 7, 1834; "This Looks Rebellion," *Illinois Patriot,* June 7, 1834; "The Mormon Controversy," *Daily National Intelligencer* (Washington, D.C.), July 23, 1834; *Painesville Telegraph,* May 9, 1834; "Mormonites," *Richmond Palladium* (Ind.), May 24, 1834; "Another Mormon War Threatened!" *Missouri Intelligencer,* June 7, 1834. ^

17. For these minutes, see Kirtland Council Minute Book, August 11, 23, 28–29, 1834. All of these are included in the forthcoming *Documents, Volume 4,* of the Joseph Smith Papers. ^

18. See, for example, Baldwin, reminiscence; Holbrook, reminiscence; Joseph B. Noble, reminiscence, MS 1031 1, CHL; Reuben McBride, reminiscence, MS 8197, CHL; William F. Cahoon, A Brief Biographical Sketch of William Farrington Cahoon, MS 8433, CHL; "A short sketch of the Life of Harrison Burgess," MS 893, CHL; Levi Hancock, autobiography, 138–47, MS 2711, CHL. ^

19. Kimball, "Journal and Record of Heber Chase Kimball," 7–19; Manuscript History of the Church, vol. A-1, 474–511; Joseph Smith Jr., *History of The Church of Jesus Christ of Latter-day Saints,* ed. B. H. Roberts, 2d ed., rev., 7 vols. (Salt Lake City: Deseret Book, 1971), 2:61–123 (hereafter cited as *History of the Church*); George A. Smith, History, 14–58. ^

20. William Clayton's journal refers to him working on "Brother Kimball's history" in the summer of 1840. Some scholars have argued that this history is the "History of the British Mission," but it appears Willard Richards wrote that history, not Clayton. A revised version of Kimball's history, including the Camp of Israel account, was published in the *Times and Seasons* in 1845 under the title "Extracts from H. C. Kimball's Journal." George D. Smith, ed., *An Intimate Chronicle: The Journals of William Clayton* (Salt Lake City: Signature Books, 1991), 57; James B. Allen and Thomas G. Alexander, eds., *Manchester Mormons: The Journal of William Clayton, 1840–1842* (Salt Lake City: Peregrine Smith, 1974), 169 n. 177; Willard Richards, Journal, March 14 and 24, 1841, MS 1490, CHL. For the dating of the manuscript history, see Richards, Journal, June 27–August 14, 1843; Church Historian's Office Journal, vol. 3, August 25–September 4, 1845; vol. 5, August 22, 1845; vol. 6, August 19–September 4, 1845, CR 100 1, CHL. For the dating of Smith's history, see George A. Smith, History, 1–46. ^

21. Kimball, "Journal and Record of Heber Chase Kimball," 14; Smith and others, Declaration, June 21, 1834. ^

22. Kimball, "Journal and Record of Heber Chase Kimball," 7. One definition of *exterminate* in Webster's 1828 dictionary is "to drive away," and it is possible Kimball was using the word in that context, rather than using it to mean "to destroy utterly." *Noah Webster's 1828 American Dictionary of the English Language,* s.v. "exterminate," available online at http://1828.mshaffer.com/d/word/exterminate. ^

23. For more information on the manuscript history, see Dean C. Jessee, "The Writing of Joseph Smith's History," *BYU Studies* 11 (Autumn 1970): 439–73. ^

24. Historian's Office Journal, August 21, 1845. ^

25. Historian's Office Journal, August 25, 1845. ^

26. George A. Smith, History, 43. ^

27. George A. Smith, History, 43. ^

28. George A. Smith, History, 22. ^

29. Account with the Church of Christ, c. August 11–29, 1834, MS 155, Joseph Smith Collection; Account with the Camp of Israel, c. August 11–29, 1834, MS 155, Joseph Smith Collection. ^

30. George A. Smith, History, 38. ^

31. Smith and others, Declaration, June 21, 1834. ^

32. Revelation, 24 Feb. 1834 [D&C 103], in Jensen, Woodford, and Harper, *Revelations and Translations, Volume 1,* 634–35. ^

33. Kirtland Council Minute Book, February 24, 1834. ^

34. Joseph Smith to Emma Smith, May 18, 1834, Joseph Smith materials, Community of Christ Library-Archives. ^

35. Account with the Camp of Israel, c. August 11–29, 1834. ^

36. Frederick G. Williams Papers, MS 782, CHL. ^

37. Nathan B. Baldwin, Account of Zion's Camp, 1882, p. 14, MS 499, CHL. ^

38. Kirtland Council Minute Book, February 14–15, 1835. ^

39. See, for example, Kirtland Council Minute Book, February 14–15 and March 1, 1835; Blessing for Burr Riggs, June 7, 1835, in Patriarchal Blessings, 1:26–27, CHL. For more information on Zion blessings, see Benjamin E. Park, "'Thou

Wast Willing to Lay Down Thy Life for Thy Brethren': Zion's Blessings in the Early Church," *John Whitmer Historical Association Journal* 29 (2009): 27–37. ^

40. See, for example, Kirtland Council Minute Book, August 17, 1835; Blessing for Burr Riggs, June 7, 1835. ^

41. Kimball, "Journal and Record of Heber Chase Kimball," 20. ^

42. Wilford Woodruff to John Taylor, May 1, 1845, *Times and Seasons* 6 (May 15, 1845): 907; Historian's Office Journal, August 25, 1845. ^

43. For information about the exodus from Nauvoo, see William G. Hartley, "Winter Exodus from Nauvoo: Brigham Young's Camp of Israel, 1846," in *The Iowa Mormon Trail: Legacy of Faith and Courage,* ed. Susan Easton Black and William G. Hartley (Orem, Utah: Helix Publishing, 1997), xiii–xxxii. See also Doctrine and Covenants section 136, 2013 edition. ^

44. See, for example, Brigham Young, in *Journal of Discourses,* 26 vols. (Liverpool: F. D. Richards, 1855–86), 2:10 (October 23, 1853). ^

45. Kimball, "Journal and Record of Heber C. Kimball," 8. ^

46. Baldwin, Account of Zion's Camp, 9. ^

47. Account with the Church of Christ, on Church Historian's Press, *The Joseph Smith Papers,* http://josephsmithpapers.org/paperSummary/account-with-the-church-of-christ-circa-11-29-august-1834; Account with the Camp of Israel, on Church Historian's Press, *The Joseph Smith Papers,* http://joseph smithpapers.org/paperSummary/account-with-the-camp-of-israel-circa-11-29 -august-1834. ^

48. Kirtland Council Minute Book, August 28–29, 1834. ^

49. Radke, "We Also Marched," 150–51. The account does show that Sophia Howe donated $7.60 and that $100 came from Boston, Massachusetts, likely from either Mary (Polly) Vose or Ruth Vose, but these individuals were not members of the camp. Account with the Church of Christ, c. August 11–29, 1834; Wilford Woodruff, in *Journal of Discourses,* 7:101 (January 10, 1858); Wilford Woodruff, "The History and Travels of Zion's Camp," 3, MS 1193, CHL; Todd Compton, *In Sacred Loneliness: The Plural Wives of Joseph Smith* (Salt Lake City: Signature Books, 1997)*,* 381–82, 386. ^

50. Joseph Holbrook, Autobiography, c. 1860, p. 34, MS 12158, CHL. ^

51. The small amount donated by the Church as a whole may have been one reason why the Camp of Israel was not able to meet its objectives. The June 1834 revelation that disbanded the camp stated that a lack of obedience from "the church abroad" in terms of supporting the Camp of Israel financially was a cause of the expedition's failure. Revelation, 22 June 1834, in Jensen, Woodford, and Harper, *Revelations and Translations, Volume 1,* 374–75. Joseph Smith elaborated on this lack of support in his June 1834 letter to Emma Smith. "It is our prayer day and night that God will open the heart of the Churches to pour in men and means to assist us, for the redemption and upbuilding of Zion," Smith declared. "We want the Elders in Kirtland to use every exertion to influence the Church to come speedily to our relief." Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:57. ^

52. Account with the Church of Christ, c. August 11–29, 1834; Account with the Camp of Israel, c. August 11–29, 1834. ^

53. These were Samuel Baker, Elam Barber, Lorenzo Booth, Albert Brown, Daniel Cathcart, David Elliott, Thomas Hays, Nelson Higgins, Orson Hyde, Luke Johnson, Lyman Johnson, Seth Johnson, Heber C. Kimball, Jesse B. Lawson, Freeman Nickerson, Roger Orton, Orson Pratt, Parley P. Pratt, Jazeniah B. Smith, Sylvester Smith, William Smith, Zerubbabel Snow, Ezra Thayer, Solomon Warner, Stephen Winchester, Brigham Young, Joseph Young, and Lewis Zabriskie. ^

54. Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:56–59; Pratt, *Autobiography,* 122. ^

55. Probably the best list of camp members was compiled by James L. Bradley, who did a considerable amount of research to produce the list. Bradley argues that there were 210 men in the camp, 11 women, and 7 children, for a total of 228. Bradley, *Zion's Camp,* 267. ^

56. Holbrook, Autobiography, 32. ^

57. Bradley lists approximately thirty individuals that do not appear on the financial account. The list on the financial account, however, has two individuals not included on Bradley's list (David Boyes and Alden Burdick). Bradley, *Zion's Camp,* 269–75; Account with the Church of Christ, c. August 11–29, 1834. ^

58. George A. Smith, History, 15. ^

59. *Church History in the Fulness of Times: The History of The Church of Jesus Christ of Latter-day Saints* (Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 2000), 144. ^

60. Kimball, "Journal and Record of Heber Chase Kimball," 8. ^

61. Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:57. ^

62. See, for example, George A. Smith, History, 7. ^

63. Smith informed Emma that the prices along the way were as follows: "flour by the hundred $1.50, bacon from 4½ to 6 dollar per Hundred butter from 6 to 8 cents pr pound, honey from 3 to 4 shilling the gallon, new milk from 4 to 6 ct per gallon." Joseph Smith to Emma Smith, June 4, 1834, in Joseph Smith Letterbook, 2:57. ^

64. See, for example, Manuscript History, vol. A-1, 477, CHL; Jenson, "Zion's Camp," *The Historical Record* 7 (June 1888): 578. ^

65. Kimball, "Zion's Camp March from Ohio to Missouri," 45; see also Seferovich, "Zion's Camp: A Blessed Trial," 24. ^

66. R. W. Wells to Mssrs. Doniphan and Atchison, November 21, 1833, MS 657, W. W. Phelps Collection of Missouri Documents, 1833–37, CHL. ^

67. Robert Reinders, "Militia and Public Order in Nineteenth-Century America," *Journal of American Studies* 11 (April 1977): 84. ^

68. "An Act more effectually to provide for the National Defence by establishing an Uniform Militia throughout the United States," passed May 8, 1792, *U.S. Statutes at Large,* vol. 1, ch. 33, pp. 271–72, available online at http://www.constitution.org/mil/mil_act_1792.htm. ^

69. Reinders, "Militia and Public Order in Nineteenth-Century America," 89–90; see also "Act more effectually to provide for the National Defence," 271–72. ^

70. Perry McCandless, *A History of Missouri, Volume II, 1820 to 1860* (Columbia: University of Missouri Press, 1972), 89–90, 97–99; Warren A. Jennings, "Importuning for Redress," *Missouri Historical Society Bulletin* 17 (October 1970): 16. ^

71. Robert W. Wells to Alexander Doniphan and David R. Atchison, November 21, 1833, copy in William W. Phelps, Collection of Missouri Documents, CHL; John F. Ryland to David R. Atchison, February 19, 1834, in "Mormon Difficulties," *Missouri Intelligencer and Boon's Lick Advertiser* (Columbia), March 8, 1834, [1]. ^

72. Daniel Dunklin to David R. Atchison, February 5, 1834, in "Mormon Difficulties," *Missouri Intelligencer and Boon's Lick Advertiser,* March 8, 1834, [1]. ^

73. See, for example, William W. Phelps to Dear Brethren, February 27, 1834, in *Evening and the Morning Star* 2 (March 1834): 139. ^

74. Daniel Dunklin to William W. Phelps and others, April 20, 1834, MS 657, W. W. Phelps Collection of Missouri Documents. ^

75. As late as June 5, 1834, Missouri Church leaders were telling Dunklin that "the time is just at hand when our society will be glad to avail themselves of the protection of a military guard." Sidney Gilbert and others to Daniel Dunklin, June 5, 1834, MS 657, W. W. Phelps Collection of Missouri Documents. ^

76. Sidney Rigdon and Oliver Cowdery to "Dear Brethren," May 10, 1834, broadsheet, CHL. ^

77. Algernon S. Gilbert and others to Daniel Dunklin, April 24, 1834, MS 657, W. W. Phelps Collection of Missouri Documents. ^

78. Committee from Lafayette County, Missouri, Resolutions, June 23, 1834, MS 155, Joseph Smith Collection, CHL. ^

79. "The Mormon War," *Painesville Telegraph,* May 9, 1834. ^

80. "Mormonism," *Huron Reflector,* May 20, 1834. ^

81. "Mormon Controversy," *Daily National Intelligencer,* July 23, 1834. ^

82. Daniel Dunklin to Col. J. Thornton, June 6, 1834, in *Evening and the Morning Star* 2 (July 1834): 176. ^

83. George A. Smith, History, 33. ^

84. Pratt, *Autobiography,* 123. ^

85. "Original Manuscript Diary of the Mormon Journey," 3. ^

86. William W. Phelps to Daniel Dunklin, August 1, 1834, MS 657, W. W. Phelps Collection of Missouri Documents. ^

87. Edward Partridge, "A History, of the Persecution," 1839–1840, in Karen Lynn Davidson, Richard L. Jensen, and David J. Whittaker, eds., *Histories, Volume 2: Assigned Histories, 1831–1847,* vol. 2 of the Histories series of *The Joseph Smith Papers,* ed. Dean C. Jessee, Ronald K. Esplin, and Richard Lyman Bushman (Salt Lake City: Church Historian's Press, 2009), 226. The council referred to may have been one held by members of the Camp of Israel on June 22, 1834, during which Joseph Smith dictated a revelation telling the camp it was no longer necessary for them to redeem Zion. Or the council could have been one held some distance from the expedition's campsite on June 21. John Whitmer noted in his daybook that he attended a "counsel" on June 21 before leaving to

meet with the Camp of Israel on June 22, but he did not provide any information about the items discussed at that council. Revelation, 22 June 1834 [D&C 105], in Jensen, Woodford, and Harper, *Revelations and Translations, Volume 1,* 374–79; John Whitmer, Daybook, June 21 and 22, 1834, MS 1159, CHL; William Farrington Cahoon, A Brief Biographical Sketch of William Farrington Cahoon, 3, MS 8433, CHL. ^

88. "Original Manuscript Diary of the Mormon Journey," 3. ^

89. Dunklin to Thornton, June 6, 1834. ^

90. Dunklin to Thornton, June 6, 1834. ^

91. Joseph Smith and others to Church Officers, August 31, 1835, in Davidson, Jensen, and Whittaker, *Histories, Volume 2,* 88. Even as they held out hope for help from the governor, Joseph Smith was stating that Zion's redemption would not come before September 11, 1836. Joseph Smith to Lyman Wight and others, August 16, 1834, Joseph Smith Letterbook, 1:84–87. ^

92. Daniel Dunklin to Revd. Friend, August 15, 1834, C97, Daniel Dunklin Papers, folder 8, State Historical Society of Missouri, Columbia, Missouri. ^

93. See, for example, "The Mormons," *Missouri Intelligencer and Boon's Lick Advertiser,* June 21, 1834; "The Mormons," *Indiana Democrat,* August 22, 1834. ^

94. Smith and others, Declaration, June 21, 1834. ^

95. Excerpts of letters, June 20 and 28, 1834, in "The Mormon Controversy," *Daily National Intelligencer,* July 23, 1834, [3]. ^

96. Joseph Smith to Thornton, Doniphan, and Atchison, June 25, 1834. ^

The Children of Lehi and the Jews of Sepharad

D. Chad Richardson and Shon D. Hopkin

The gathering of scattered Israel is a foundational doctrine of the Restoration, as emphasized by the scriptures and reemphasized by Joseph Smith and other prophets in modern times (see, for example, Deut. 30:1–4; A of F 10). The Book of Mormon strongly asserts a gathering, not only of Lehi's scattered seed but also of the "Jews."[1] In 2 Nephi 3:12, Lehi apparently quotes from a prophecy by Joseph of Egypt that is now found in the Joseph Smith Translation of Genesis 50:24–38, which says, "Wherefore, the fruit of thy loins shall write; and the fruit of the loins of Judah shall write; and that which shall be written by the fruit of thy loins, and also that which shall be written by the fruit of the loins

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1. A thorough analysis in the Book of Mormon of the use of the title "Jews" seems to indicate that most prophets frequently used the term as a synonym for "Israelite," particularly when those Israelites were from the southern kingdom of Judah. Thus, although the Nephites were primarily from the tribes of Ephraim and Manasseh, they also saw themselves as Jews, possibly because they had fled from within the kingdom of Judah. This Book of Mormon usage of the term "Jew" is thus somewhat different than its usage in modern speech. Additionally, Nephi at times distinguished between his own people, who had departed from Judah, and the Jews, who had remained and who would be responsible for the creation of the Bible, including the later creation of the New Testament. It is this understanding of the word "Jews" that will be used in this paper, mirroring to a great degree a modern usage of the term. For analysis of the term "Jews" in the Book of Mormon, see Dennis Largey, ed., *Book of Mormon Reference Companion* (Salt Lake City: Deseret Book, 2003), 463–64.

D. Chad Richardson and Shon D. Hopkin

I (Chad) became interested in the Sephardic Jews while serving from 1985 to 1988 as a mission president in Spain—especially as I visited the old Jewish quarters of Sevilla, Cordoba, and Granada. I also became fascinated with Columbus as I read his biography by Salvador de Madariaga. His life connected my fascination with the Sephardic Jews to my love for the descendants of Lehi that I had acquired while serving as a missionary in Central America and in my professional and academic work with Mexican and Central American immigrants in South Texas. After returning from Spain to South Texas, I became friends with a fellow professor—a Sephardic Jew who still spoke Ladino, the Spanish his forbears spoke when they fled from Spain to Turkey around 1492.

D. Chad Richardson

Our discussions led me to historical works on the Sephardim by Gerber and by Gitlitz (cited in the article). One evening as I read of the Jews and the children of Lehi in 2 Nephi 29, I noticed that verse 8 seemed to connect the coming

Shon D. Hopkin

forth of the Book of Mormon with the uniting of these two "nations." Subsequent research supported that connection, so I put together an early version of the present article.

In 2010, my wife and I were called to serve in the Panama temple. While there, our love for the children of Lehi grew. I also resolved to find a coauthor with expertise in the history of the Sephardim and in Book of Mormon studies to help prepare the article for publication. A friend suggested Shon Hopkin, whose doctoral work in Hebrew studies focused on the medieval Iberian Peninsula and who is currently a member of BYU's Book of Mormon Academy. We reworked the study together, and the current article is a result of that collaboration.

of Judah, shall grow together, unto the . . . laying down of contentions, and establishing peace among the fruit of thy loins."

Biblical accounts depict the antagonism that developed anciently between Joseph, represented by the northern kingdom of Israel with its (approximately) ten tribes, and Judah, represented by the southern kingdom of Judah with its (approximately) two tribes (Isa. 11:13).[2] Ezekiel prophesied, however, that future peace would occur between the descendants of Judah and Joseph:

> The word of the Lord came again unto me [Ezekiel], saying, Moreover, thou son of man, take thee one stick, and write upon it, For Judah, and for the children of Israel his companions: then take another stick, and write upon it, For Joseph, the stick of Ephraim, and for all the house of Israel his companions: And join them one to another into one stick; and they shall become one in thine hand. And when the children of thy people shall speak unto thee, saying, Wilt thou not shew us what thou meanest by these? Say unto them, Thus saith the Lord God; Behold, I will take the stick of Joseph, which is in the hand of Ephraim, and the tribes of Israel his fellows, and will put them with him, even with the stick of Judah, and make them one stick, and they shall be one in mine hand. . . . And I will make them one nation in the land upon the mountains of Israel; and one king shall be king to them all: and they shall be no more two nations, neither shall they be divided into two kingdoms any more at all. (Ezek. 37:15–22)

This paper will propose one way in which this prophesied unification of Joseph and Judah into "one nation" may have been in part fulfilled, namely in a joining of the Jews of Sepharad (Sephardic Jews) with the children of Lehi.

Latter-day Saints generally read these verses from Ezekiel as a prophecy of the coming forth of the Bible and the Book of Mormon, typically picturing the image of two scrolls held on sticks that would be joined

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2. This antagonism is referred to explicitly in biblical references that discuss a future healing of that breach, as in Isaiah 11:13 and Ezekiel 37:22. It began with the division of the tribes of Israel into two rival kingdoms during the reign of Rehoboam (see 1 Kgs. 12). The two kingdoms did cooperate at times over the course of their history, but prior to its destruction and deportation by Assyria, the northern kingdom of Israel had threatened the kingdom of Judah with war (see Isa. 7). This interaction was thus the last and perhaps defining relationship that existed between Judah and Joseph anciently, since the northern tribes essentially disappeared from history at the time of their deportation to Assyria.

into one[3]—an understanding encouraged by the words of Lehi, "where-fore, the fruit of thy loins shall write; and the fruit of the loins of Judah shall write; and that which shall be written . . . shall grow together" (2 Ne. 3:12; see also 2 Ne. 29:13). An additional understanding of Ezekiel's man-ner of prophecy arises if he acted out this prophecy by taking a "stick" (Heb. עֵץ ʿēs), likely a writing tablet,[4] and wrote the name of Judah upon it, and took a second stick, on which he wrote the name of Joseph, and then joined those "sticks" together in his hand to symbolically repre-sent the restoration, gathering, and unification of Israel in the last days. Judah, representing the southern kingdom of Judah and all the tribes within it, would be reunited with Joseph, representing the northern kingdom of Israel and the tribes within it. Thus, Ezekiel's prophecy fore-tells the incidence of two concurrent events: the Book of Mormon being unified with the Bible and the creation of "one nation in the land" (Ezek. 37:22) from these two scattered peoples (Judah and Joseph).

Book of Mormon Prophecies of a "Running Together" of Two Peoples and Their Two Records

Nephi's vision of the future of his people mirrors Ezekiel's view that these two scattered houses of Israel would come together, each with its own scriptural record.

> O ye Gentiles, have ye remembered the Jews, mine ancient covenant people? . . . I the Lord have not forgotten my people. Thou fool, that shall say: A Bible, we have got a Bible, and we need no more Bible. Have ye obtained a Bible save it were by the Jews? Know ye not that there are more nations than one? Know ye not that I, the Lord your God, have created all men, and that I remember those who are upon the isles of the sea . . . ? Know ye not that the testimony of two nations is a witness unto you that I am God, that I remember one nation like unto another? Wherefore, I speak the same words unto one nation like unto another. *And when the two nations shall run together the testimony of the two nations shall run together also.* (2 Ne. 29:5–8, emphasis added)

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3. Largey, *Book of Mormon Reference Companion*, 246. See also Hugh Nibley, *An Approach to the Book of Mormon* (Salt Lake City: Deseret News Press, 1957), 279–81.

4. Keith H. Meservy, "Ezekiel's Sticks and the Gathering of Israel," *Ensign* 17 (February 1987): 4–13; M. E. L. Mallown, "Excavations at Nimrud: 1953," *IRAQ* 16 (1956): 98–107.

Here Nephi proposes a more specific identification of the two nations—the Jews through whom the Bible would come forth and the children of Lehi through whom the Book of Mormon would come. This text also seems fairly specific about the *timing* of the coming together of these two nations and their respective records. Verse 8 can be read as indicating that the coming together of the two nations would precede or prepare the way for the coming together of their records: "And when the two nations shall run together the testimony of the two nations shall run together also." The two records were first "joined together" in one hand with the publication of the Book of Mormon in 1830.

This paper will ask if it is possible to identify a "running together" of the two "nations" of Joseph and Judah at the time when the Book of Mormon came forth. In response, this paper proposes a possible fulfillment of Nephi's and Ezekiel's prophecies by illuminating a portion of the history of one of the two major branches of Judaism—the Jews of Sepharad (or Sephardic Jews)—and by showing how they "ran together" with a portion of the descendants of Lehi. That historical coming together of these two "nations" fits the timeline suggested by Nephi's prophecy, though that fulfillment does not preclude broader or still-future reunifications of Joseph and Judah and their respective records.

The Jews of Sepharad

For many Jewish people today, the origin of the Sephardic Jews has its legendary beginnings with a biblical prophecy recorded in Obadiah 1:20: "And the captivity of this host of the children of Israel shall possess that of the Canaanites, even unto Zarephath; and *the captivity of Jerusalem, which is in Sepharad*, shall possess the cities of the south" (emphasis added). The captivity of Jerusalem, as suggested by the LDS Bible Dictionary reference on Obadiah, likely refers to the Babylonian exile of 586 BC. If this interpretation is appropriate, then the timing of Lehi and Nephi's departure for the promised land coincides with the beginning of a Jewish community in Sepharad—apparently caused by the Babylonian disruption.[5]

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5. Though biblical scholars generally suggest two other possible interpretations of the name Sepharad in Obadiah 1:20 (a city Sardis in Asia Minor, known as Sfard in Persian times, and a city named Saparda, located east of Assyria in Media), its identification with the Iberian peninsula has been strengthened in Jewish tradition by the strong Jewish community that continued in relative prosperity there for many centuries and that looked to the Bible for its divine

According to Jane S. Gerber, a professor of Jewish history and director of the Institute of Sephardic Studies at the City University of New York Graduate Center:

> The history of the Jews of Spain [and Portugal] is a remarkable story that begins in the remote past and continues today. For more than a thousand years, Sepharad (the Hebrew word for Spain) was home to a large Jewish community. . . . One particular folk tradition has lasted virtually to the present day: the legend that some of ancient Jerusalem's aristocratic families, deported first by the Babylonians in 586 [BCE] and then again by the Roman conqueror Titus in 79 CE, resettled on the Spanish shore. . . . According to some estimates, the total Jewish population at the beginning of the common era may have been eight million.[6]

The Jews of Sepharad, or the "Sephardic Jews," came to think of the Iberian Peninsula (now Spain and Portugal)[7] as a second Jerusalem (or homeland) following their multiple expulsions from the land of Israel.

The major pattern experienced by the Sephardic Jews during their long sojourn in the Iberian Peninsula was persecution and forced assimilation—first under the Romans and then continuing for another three

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origins. The tradition connecting Obadiah 1:20 with the Jews of Iberia also finds support in the *Targum of Jonathan*. See D. Neiman, "Sefarad: The Name of Spain," in *Journal of Near Eastern Studies* 22 (1963): 128–32, and John D. Wineland, "Sepharad," in *The Anchor Bible Dictionary,* ed. David Noel Freedman and others, 6 vols. (New York: Doubleday, 1992), 5:1089–90. The thesis of this paper does not depend on the connection between the biblical Sepharad and the Jews in Iberia. Although it is unknown when Jews arrived in the peninsula, their ancestry there is not disputed. Neither is there scholarly dispute that the term "Sephardic" came to be identified in Jewish folklore as designating a Jewish homeland in the Iberian Peninsula for over a thousand years.

6. Jane S. Gerber, *The Jews of Spain: A History of the Sephardic Experience* (New York: Free Press, 1992), vii, 2–3.

7. Portugal did not become established as an independent kingdom until the thirteenth century. From the thirteenth century, the history of the Jews and their conversions to Christianity in Spain and in Portugal shows broad similarities but has many significant differences in detail. This article will generally speak of Spain and Portugal together, although doing so is a significant oversimplification of the history. When historical differences between the two kingdoms have bearing on the discussion, they will be noted. As David Gitlitz has written, "The Jewish and *converso* experience in Portugal was in broad strokes similar to that of Spain, but the details tended to differ significantly." David M. Gitlitz, *Secrecy and Deceit* (Philadelphia: The Jewish Publication Society, 1996), 48. On the whole, the political climate in Portugal was less inclined to cause mass conversions of Jews to Christianity until much later than in Spain.

hundred years under Germanic Visigoths. As many as 90,000 Jews were forced to convert to Catholicism in AD 613. Similar forced mass conversions were ordered in AD 680 and again in AD 694.[8] In AD 711, the Germanic Visigoths were defeated by the Moors of Africa, who overran southern Iberia. The Sephardic Jews then experienced a seven-hundred-year period of relative peace at the hands of their Muslim rulers. Toward the end of this period, the population of Sephardim in Iberia may have reached as high as ninety percent of the total world Jewish population.[9]

Then, in the twelfth century, heavy persecutions began again, as Catholic monarchs began reconquering the Iberian Peninsula from the Moors. In 1306, the persecution of Jews in France forced many Jews to move to Cataluña and Aragón. These and other Jews throughout the Iberian Peninsula were proselytized and pressured to convert, including restrictions on where they could live or work. In some cities, Jews were forced to listen to Catholic proselytizers in their synagogues. In 1378, a popular archbishop in Seville began to advocate a holy war against Jews, even calling for the destruction of Seville's twenty-three synagogues. In 1391, the animosity of Catholics in Seville resulted in riots that left the Jewish Quarter in shambles—with a similar fate occurring in other cities of Andalucia. In the reconquered lands, additional pressures forced approximately 100,000 Jews (known in Hebrew as אנוסים, *ʾănûsīm,* from a verb meaning "to force") to convert in 1391 and another 50,000 to do so in 1415.

Prior to 1492, Ferdinand and Isabella had adopted a policy of "*convivencia*" (religious tolerance) in their kingdom. In 1491, however, as the last Muslim city of Granada was conquered, their policy changed to a new and even more severe round of forced conversions and expulsions of the Jews from the conquered territories.[10] Often, these conversions were accomplished by forcibly taking children from any Jewish parents who refused to convert. These children were then given to Catholic families.[11]

With all these forced conversions, just how much of the population of the Iberian Peninsula was descended from Jewish ancestry? One

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8. Gerber, *Jews of Spain,* 12–14.

9. Gerber, *Jews of Spain,* xxiv. This declined to only 50 percent by 1700 and the decline was steady thereafter.

10. For an excellent summary of the forced conversions leading up to and following the 1492 expulsion, in both Spain and Portugal, see Gitlitz, *Secrecy and Deceit,* 37–53.

11. See, for example, Gitlitz, *Secrecy and Deceit,* 49.

scholar, Howard M. Sachar, author of *A History of the Jews in America,* proposes that the amount of Jewish blood was not only "high," but very high.[12] As stated above, prior to 1492 many forced conversions (and an even greater number of more voluntary conversions) had already taken place over a period of at least a thousand years. Gitlitz says, "It has proven impossible to quantify precisely the demography of the Sephardim at significant moments in their Iberian history."[13] Nevertheless, he attempts to consolidate varying estimates. Benzion Netanyahu, for example, estimated that from 600,000 to 650,000 Jews converted between the 1391 riots and 1480.[14] When Ferdinand and Isabella ordered the Jews to either convert or leave Spain, estimates of the Jewish population range from 40,000 to more than a million. Whatever the total, about half chose to convert, another 150,000 chose to go to Portugal,[15] and the remainder left for other countries, principally in the Middle East and Europe.[16] Yet it was precisely from the ranks of these *conversos* (converted Jews and their descendants)[17] that men of Jewish birth later ascended to the most exalted echelons of state and church. Many also became supporters of Christopher Columbus in his great quest of discovery.[18]

Though separated by a great ocean, the people of Lehi in America and the Jews who viewed themselves as "the captivity of Jerusalem in Sepharad" had received, or were about to receive, harsh treatment at the hands of these gentile nations. Gerber mentions one parallel that historians regard as a remarkable coincidence. She states, "On the evening of August 2, [1492,] two great dramas were simultaneously unfolding in Spain. In the port of Palos, three caravels under the command of

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12. Howard M. Sachar, *A History of the Jews in America* (New York: Knopf, 1993), 9.

13. Gitlitz, *Secrecy and Deceit,* 73–75.

14. B. Netanyahu, *The Marranos of Spain, from Late XIVth to the Early XVIth Century, according to Contemporary Hebrew Sources* (New York: American Academy for Jewish Research, 1966), 248.

15. Sachar, *History of the Jews,* 10.

16. Gitlitz, *Secrecy and Deceit,* 73–75.

17. Scholarship has used the term *converso* at times to refer to only those who had converted (as the term itself indicates) and at times as a useful term to describe the large numbers of descendants of those who had converted in previous generations. Some of these descendants still practiced a secretive form of Judaism, but others were fully Christianized, notwithstanding their Jewish descent. In this article, we will rely on the latter usage.

18. Sachar, *History of the Jews,* 9.

Christopher Columbus were undergoing final preparations for their historic journey of discovery. And throughout the country, the nation's Jews were spending their last night on Spanish soil after a sojourn that had lasted more than 1,500 years."[19]

King Ferdinand and Queen Isabella allowed Jews who refused to convert only four months to leave Spain, setting August 2, 1492, as the date by which they had to leave or be exterminated.[20] That date was only one day before Columbus would embark on his first voyage to the Americas. As Columbus journeyed to the Port of Palos to begin his journey, he passed caravans with thousands of Jews who were being driven from their Sephardic homeland. The expulsion of the Sephardic Jews will thus forever be linked on the calendar with the discovery of the Americas, the land of Lehi's descendants.

For Latter-day Saints, it is significant that Nephi himself also connected the destiny of his people with these voyages of Columbus, of which he prophesied, "And I looked and beheld a man among the Gentiles, who was separated from the seed of my brethren by the many waters; and I beheld the Spirit of God, that it came down and wrought upon the man; and he went forth upon the many waters, even unto the seed of my brethren, who were in the promised land" (1 Ne. 13:12).[21]

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19. Gerber, *Jews of Spain,* ix.

20. Many Jews believed that King Ferdinand would save them. Gerber, *Jews of Spain,* 129, quotes correspondence among them saying, "He is our brother and flesh, with Jewish blood in him."

21. Orson Pratt (in a footnote to the 1879 edition of 1 Nephi 13:12), George Q. Cannon, and Spencer W. Kimball are among the LDS Apostles who have directly connected this Book of Mormon prophecy with Christopher Columbus. See George Q. Cannon, in *Journal of Discourses,* 26 vols. (Liverpool: F. D. Richards, 1855–86), 14:55, and Spencer W. Kimball, *Teachings of Spencer W. Kimball*, ed. Edward L. Kimball (Salt Lake City: Bookcraft, 1982), 427. See also De Lamar Jensen, "Columbus and the Hand of God," *Ensign* 22 (October 1992): 7–13; and Largey, *Book of Mormon Reference Companion,* 210–11. Columbus himself averred that he had been sent forth by the Spirit of God. See Jacob Wassermann, *Columbus: Don Quixote of the Seas,* trans. Eric Sutton (Boston: Little, Brown, 1930), 19–20; and Delno C. West and August Kling, *The* Libro de Las Profecías *of Christopher Columbus* (Gainesville: University of Florida Press, 1991), 105. Interestingly, the prophecy does not specifically refer to Columbus as a Gentile, although the text could be interpreted that way. Rather it states that Columbus was a man *among* the Gentiles, and then refers in subsequent verses to "other Gentiles" and "multitudes of Gentiles" (1 Ne. 13:13–14).

Some historians have posited that Columbus himself was a *converso,* perhaps a descendant of Jews who had converted generations earlier and had moved to Italy to escape persecution. Salvador de Madariaga, a Spanish biographer, points out that though Columbus was born in Italy and moved to Portugal at age nineteen, eventually marrying into a Portuguese family, all his personal correspondence in journals and his letters to his family were written in Spanish (even before he moved to Spain).[22] Numerous supporting details have been put forward to demonstrate that Columbus engaged in speech and behaviors more typical of Jews than of Christians.[23]

It must be noted that other historians have rigorously disputed the likelihood of Columbus's Jewish descent. Indeed, identifying "Judaizing" tendencies—an important goal of the Spanish and later Portuguese Inquisitions—was a notoriously subjective endeavor in that time and continues to be so today.[24] Despite his apparent familiarity with Jewish

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22. Salvador de Madariaga, *Vida del muy magnífico Señor don Crístobal Colón* (Buenos Aires: Editorial Sudamerica, 1956), 71–85, 150–55, 171–94. His apparent preference was for a Spanish that had many similarities to Ladino, the form of Spanish of Sephardic Jews. See Estelle Irizarry, *Christopher Columbus: The DNA of His Writings* (San Juan, P.R.: Ediciones Puerto, 2009).

23. These include such things as his familiarity with Old Testament prophets (at a time and place where access to the scriptures by lay people was virtually closed to Catholics but expected of every Jewish male); his keeping company with Jews and former Jews, including navigators, astronomers, and his official translator; and his references to dates and phrases unique to Hebrew people (he referred to the Fall of Jerusalem, for example, using the phrase "the destruction of the Second House [the Temple]," the term that Jews used to refer to it). For his extensive preference for Old Testament prophecy, see his *Book of Prophecies.* West and Kling, Libro de Las Profecías *of Christopher Columbus.* For his preference for Jewish terms and language, see the preceding note.

24. See Gitlitz, *Secrecy and Deceit,* 73–90, for a discussion of the many difficulties, including a tendency to oversimplify the *converso* experience into only two possibilities, Judaizing or fully Christianized, when the reality was much more complex. Additionally, many of the items mentioned in the preceding footnote as supports for Columbus's Jewish ancestry—besides his use of language more characteristic of the Jews—can be explained in other ways. For example, his love of Old Testament prophecies could also be connected to Christian millenarianism, particularly since one of Columbus's stated goals for his expedition was the retaking of Jerusalem in order to prepare for the Second Coming of Christ. Although these types of mixed religious sentiments were often typical of the *converso* population, the existence of strong Christian sentiment in Columbus's writings prevent a conclusive determination of his ancestry.

scripture, Columbus was a committed Christian. There is no evidence that he practiced Jewish customs or attempted to woo Jewish converts back to Judaism. Indeed, he was convinced that his voyages would bring many converts to Christianity in the lands he discovered and would facilitate the Christian conquest of Jerusalem. Still, his Christianity had some elements apparently foreign to Catholicism of the day. Although Columbus's possible identity as a Jewish *converso* is certainly relevant to this article as a point of interest, it is not centrally important to our main arguments.

The treatment of Sephardic Jews who were forced to flee Spain at this time is heart-rending. Most of them lost all of their property. Virtually no Christian country would accept them, with the notable exception of Portugal, which will be discussed below. Many fled to Turkey and to other areas in the Ottoman Empire under Muslim control. Others moved to Africa. Henry Kamen estimates that some 25,000 of those expelled died en route.[25] Nevertheless, "at least half of all the Jews could not find the strength to leave Spain and accepted conversion."[26]

Nominal conversion, however, was not enough. The persecution of those who did "convert" and remain in Spain became even more intense. The Inquisition was instituted in Spain in 1478 after Ferdinand and Isabella petitioned the Pope for authority to initiate it there. Once instituted, it became both a political and a religious instrument. Although its power derived from the Papacy, the Spanish Inquisition was a means at the disposal of the monarchy to consolidate power. *Converso* Jews, especially those with substantial property, were pursued on any allegation or suspicion that their conversion was not genuine. Torture and execution were common.[27]

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25. Henry Kamen, *The Spanish Inquisition* (New York: Mentor, 1966), 32.

26. Gerber, *Jews of Spain,* 141. See also Gitlitz, *Secrecy and Deceit,* 27.

27. Regarding the experience of the *conversos* in Inquisition Spain, see John H. Edwards, "Male and Female Religious Experience among Spanish New Christians, 1450–1500," in *The Expulsion of the Jews: 1492 and After,* ed. Raymond B. Waddington and Arthur H. Williamson (New York: Garland Publishing, 1994), 41–52. See also Netanyahu, *Marranos of Spain,* 1–4; Bartolomé Bennassar, "La Inquisición frente a los conversos según las investigaciones recientes," in *Inquisición y Conversos: III Curso de Cultura Hispano-Judia Y Seferdi* (Toledo, Spain: Asociación de Amigos del Museo Sefardí, 1993), 21–34; and Erica Puentes Quesada and Ignacio Pulido Serrano, "El banco de datos sobre judeoconversos," in *Inquisición y Conversos: III Curso de Cultura Hispano-Judia y Seferdi*, 103–18.

The approximately 120,000 who fled to join Portugal's Jewish communities in order to avoid conversion in 1492 were soon faced with another brutal ultimatum. John II of Portugal, who had offered asylum, within five years reversed himself and declared that all Jews must convert. Several thousand returned to Spain and converted so that they could recover lost property. Those who refused were to be killed and their children taken from them and sent alone to a deserted island. These Spanish exiles in Portugal became some of the most ardent "crypto-Jews"—those "converts" who not only attempted to continue practicing their Jewish religion in secret but even sought to convince assimilationist Jews to revert back to Judaism. The institution of the Inquisition in Portugal in 1536 was thus even more forceful and violent than was its Spanish predecessor, witnessing its first *auto-da-fé* (burning at the stake to encourage confession) by 1540.[28]

As the Spanish and Portuguese colonizers left for the Americas, they took with them substantial Jewish ancestry, produced by forced or pressured conversions over more than fifteen hundred years.[29] Additionally, in order to escape the Inquisition, many more recently "converted" crypto-Jews fled to the Americas, though the Spanish and Portuguese Inquisitions followed them there. Despite the vigorous activity of the Inquisition, groups of secret Jews continued to arrive in Latin America from Iberia and other parts of Europe and persisted in secretly practicing their Judaism.[30] The largest number of crypto-Jews went to Mexico (which then included the present-day Southwestern United States) and to Brazil.[31] Boleslao Lewin estimates that there were 30,000 crypto-Jews

28. Gerber, *Jews of Spain,* 141. See also Gitlitz, *Secrecy and Deceit,* 48–53.

29. Seymour B. Liebman, *The Jews in New Spain: Faith, Flame, and the Inquisition* (Coral Gables, Fla.: University of Miami Press, 1970), 42, calculated that by 1545 at least 25 percent of the Spanish immigrants to Mexico were recently converted Jews. Gitlitz, *Secrecy and Deceit,* 54, provides a helpful summary of various scholarly estimates, and states that the number of Judaizing *conversos* (those Jews who sought to return to Jewish religious practices) was "hefty." Even among those who were not recent converts, many had Jewish ancestry from "conversions" in previous generations.

30. Although practicing Jews also played an important role in the early Americas, as mentioned in the following footnote, their history is outside the purview of this article since they typically did not intermarry with the Native American population, a concept that will be discussed below.

31. Brazil was also home to a large population of openly practicing unconverted Sephardic Jews who had fled to Holland prior to conversion and came to

in the Spanish-American colonies, while there were 10,000 in Brazil.[32] Gitlitz stresses, however, "Presumably the number of assimilationist new-Christians [*conversos*] was much higher."[33]

Over the next two or three hundred years, the Inquisition and a gradual conversion process virtually eliminated the crypto-Jews as a category. By the time the Latin American nations received their independence in the early 1800s, the Inquisition had been abolished and the great *mestizo* race (known as *cholos* in Peru) was formed in the Americas from the mixing of the Native Americans with the Spanish and Portuguese colonizers (with their substantial Jewish ancestry).[34] Like the Sephardic Jews, the Native Americans in Latin America would also be persuaded or forced, over subsequent centuries, to convert to Catholicism.

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the New World when northeastern Brazil was conquered by the Dutch. Brazil thus became the site of the first synagogue built in the New World. These practicing Jews were later expelled from Brazil in 1654 and took up their residence in New York City (known at the time as New Amsterdam). Joshua Seixas, the Hebrew teacher hired by Joseph Smith, proceeded from this Sephardic, Dutch, Brazilian, Jewish community. For histories of the complex presence of Jews and those of Jewish descent in the Brazil, see Frederick J. Zwierlein, *Religion in New Netherland, 1623–1664* (1910; rpt., New York: Da Capo Press, 1971), and Tânia Neumann Kaufman, *Lost Footsteps, History Recovered: The Jewish Presence in Pernambuco, Brazil* (Recife: Ensol, 2004). Additionally, Argentina was and continues to be an important center for practicing Sephardic Jews (along with other locations).

32. Boleslao Lewin, *Los criptojudíos, un fenómeno religioso y social* (Buenos Aires: Milá, 1987), 185. This paragraph simplifies the very complex subject of crypto-Judaism in the New World, which saw significant differences depending on the area. Judaizing tendencies in Brazil were particularly strong, since its inhabitants came from Portugal rather than Spain.

33. Gitlitz, *Secrecy and Deceit*, 75.

34. Other ethnic groups existed besides the *mestizos* (descendants of Europeans who intermarried with the Native American population). Groups such as the *gachupin* (European born in the Iberian peninsula, but living in America), the *criollo* (Iberian, but born in America), and others existed, with the *mestizos* typically found near the bottom of the social scale, but higher than *mulatos* (white and black), *bugres* (Indian, white, black), and black slaves. The complexity of Latin America involves contributions by each of these groups that are not mentioned in this article. For example, it was the *gachupins* who were the primary liberators of Central and South America. For an excellent treatment of this history, see John A. Crow, *The Epic of Latin America* (Berkeley: University of California Press, 1980).

Intertwined Destiny of
the Children of Lehi, the Gentiles, and the Jews[35]

Lehi and other American prophets, including his son Nephi and his grandson Enos, foresaw with great sadness that their own people would eventually succumb to unbelief, fall into wickedness, and be scattered and destroyed by their brethren, the Lamanites (1 Ne. 12:19; 15:4–5; 2 Ne. 1:22; Enos 1:13–16). Nevertheless, through great faith they received prophetic promises from the Lord. He promised, for example, that the land of the Book of Mormon would be a land of inheritance for the seed of Lehi forever (2 Ne 1:5; 2 Ne. 10:19) and that no other people would come to this land except those brought by the hand of the Lord (2 Ne. 1:6). In 2 Nephi 10:19, Jacob quotes the Lord's promise that the land of the Americas would be given "unto thy seed, *and them who shall be numbered among thy seed*, forever, for the land of their inheritance" (emphasis added).

In addition, these Book of Mormon prophets received promises that the Lamanites, as well as the remnants of the Nephites mixed among them, would be gathered again and restored to a knowledge of God's covenants with their ancestors (D&C 10:46–52). More specifically, the Lord promised Lehi and other prophets that their fallen seed in the latter days would, first, be driven and scattered by the Gentiles who would come to the promised land (1 Ne. 13:14); second, receive the Bible from the Gentiles (1 Ne. 13:38, 39, 41); third, receive the record of their fathers (the Book of Mormon); and, fourth, hearken to the words of the book (2 Ne. 30:5). Further, they would be restored to the knowledge of the covenants of their fathers and to the knowledge that their fathers had of Christ (Morm. 8:36; W of M 1:8; 2 Ne. 30:5). The prophecies of the Book of Mormon also indicate that the Lamanites would return unto Christ (Hel. 15:16), would be grafted into the true tree and receive the strength of the true vine, and would come into the fold of God (1 Ne. 15:15). Finally, it was promised that they would blossom as the rose (D&C 49:24) and would become

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35. Just as it is not necessary to assume 100 percent Lehite ancestry to refer to the Native Americans as the seed of Lehi, neither is it necessary for the Spanish and Portuguese colonizers (who were of mostly Gentile descent) to have 100 percent Jewish ancestry in order to call them Jewish. In reality, they were both Gentile and Jewish by blood. As has been discussed, many were also both Jewish and Gentile (Christian) by religious practice, as well. Additionally, many of these colonizers would also eventually become mixed with the seed of Lehi (1 Ne. 14:2), as will be shown.

a blessed people (Jacob 3:6). The fulfillment of these prophecies was to begin in earnest with the coming forth of the Book of Mormon to stand as a joint witness with the Bible (3 Ne. 29:1–9).

As a result of this great restoration, the Lord also covenanted with Book of Mormon prophets that remnants of Lehi's descendants would receive the Bible and the Book of Mormon along with others who would possess this land such as "the Jews who were scattered upon all the face of the earth" (1 Ne. 13:39). Nephi taught that these latter-day blessings were not just for the scattered remnants of the Nephites and Lamanites but were also for all of the house of Israel, because "the house of Israel, sooner or later, will be scattered upon all the face of the earth, and also among all nations" (1 Ne. 22:3). Following his prophecy that those who had become Lamanites would have the scales of darkness fall from their eyes and would become a pure and delightsome people, he immediately adds in the following verse that "the Jews which are scattered also shall begin to believe in Christ; and they shall begin to gather in upon the face of the land; and as many as shall believe in Christ shall also become a delightsome people" (2 Ne. 30:6–7).[36]

The Coming Together of Two Nations

"And *when* the two nations shall run together the testimony of the two nations shall run together also" (2 Ne. 29:8, emphasis added).

At essentially the same time that the Bible and the Book of Mormon were coming together through the restoration of the gospel, a great coming together of two nations or peoples was also taking place throughout Latin America. The Spanish and Portuguese *conquistadores*, coming forth from Gentile nations, had earlier helped fulfill the prophecies that the descendants of Lehi would be scattered and driven by the Gentiles in the last days (1 Ne. 13:14). As has been shown above, however, many of the same Gentiles who colonized the Americas were also to a considerable extent descendants of the tribe of Judah, retaining a significant amount of Jewish *converso* blood.[37] As many of these immigrants from

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36. Though the Mulekites joined the seed of Lehi shortly after the arrival of both groups in the promised land, the Mulekites brought no record with them. Hence they cannot be considered as the Jews (mentioned in 2 Nephi 29:8) who would join the seed of Lehi, each bringing their respective records.

37. The crypto-Jews who helped colonize the Americas were apparently not a significant part of the soldiers or conquistadores who brutalized the Native Americans (although Jewish blood from centuries of older conversions was likely represented in that group). See Gitlitz, *Secrecy and Deceit,* 54. Jewish *conversos*

Spain and Portugal (with a mixture of European and Sephardic Jewish blood) subsequently intermarried with the Native Americans, they created a *mestizo* race that also mixed blood of Judah with Lehite seed of Joseph. This *mestizo* race would eventually permeate Latin American society.

This amalgamation of two nations or peoples culminated politically and culturally when the Latin American nations formed by their intersection gained independence from their "mother Gentiles" (1 Ne. 13:17), fulfilling another prophetic pronouncement found in the Book of Mormon: "And I beheld that their mother Gentiles were gathered together upon the waters, and upon the land also, to battle against them. And I beheld . . . that the Gentiles [including, as has been shown, a mixture of Judah and Joseph] that had gone out of captivity were delivered by the power of God out of the hands of all other nations" (1 Ne. 13:17–19).

Starting just after the birth of Joseph Smith in 1805, virtually all of the Spanish and Portuguese colonies of the New World began to proclaim their independence, starting with Argentina in 1816. In 1821, Mexico and Venezuela declared their independence. Brazil and Ecuador followed in 1822.[38] The Central American nations gained their full independence in 1823. Peru, Bolivia, and Uruguay followed in 1824 and 1825. In 1826, just months before Joseph received the plates and only a few years before the publication of the Book of Mormon, the last remnants of Spanish troops in the Americas were defeated in Peru. Throughout the Americas, these Iberians with their extensive Jewish ancestry had by then "run together" with the children of Lehi, and as they gained

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seldom entered the soldiering trades. Their experience and their high rates of literacy tended to land them in the New World as traders, small-scale merchants, artisans, and administrators. They came in substantial numbers as colonizers, especially in Mexico and Brazil; to a somewhat lesser degree to Peru and Chile; and in smaller numbers to the other colonies. Thus, even though it is possible for a people to be both Gentile (proceeding from a Gentile nation with Gentile blood) and Jewish (with some Jewish blood and sometimes remnants of Jewish beliefs and practices), the conquest of the Americas could correctly be identified as Gentile, while the colonization of the Americas can accurately be said to contain a significant Jewish element.

38. The process of independence in Central and South America was supported by the Monroe Doctrine, articulated by the United States in 1820, the year of the First Vision. It declares that any unwanted military or political involvement in the Western Hemisphere by outside powers was potentially a hostile aggression against the United States.

independence from Spain and Portugal, they became united into a "nation"[39] in preparation for the also prophesied running together of their two great records.

But can the Book of Mormon references to the seed of Lehi be read as applying to the nations of Latin America? Throughout the history of the LDS Church, identifying the modern location of the descendants of Lehi has been challenging, and cases of varying strength can be made for a number of locations, including Central America, as, for example, in John Sorenson's *Mormon's Codex*.[40] Joseph Smith saw the Native American civilizations in the United States as at least partial descendants of Book of Mormon peoples (see D&C 54:8). Meanwhile, Church publications of the time accepted reports of amazing discoveries in North, Central, and South America as confirmations of the general Book of Mormon storyline.[41]

Although almost all Latter-day Saint scholars currently reject the idea that the Book of Mormon storyline could have geographically covered all of North and South America, it is impossible to know absolutely whether any of the proposed locations is completely accurate, even if strong adherents to various positions might argue differently. The widespread scattering of the tribes of Israel (including both the Jewish *diaspora* and the so-called Lost Ten Tribes), however, can potentially serve as a parallel for the fate of the descendants of Lehi. Through the eventual dissemination of the blood of Lehi throughout much of the Americas by means of scattering and intermarriage over the course of many centuries, virtually all the peoples of the Americas have been affected by the descendants of Lehi to a lesser or greater degree. In this sense, all or almost all

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39. For a general history of the movements toward independence in Central and South America, see R. L. Woodward Jr., "The Aftermath of Independence, 1821–1870," in *Central America since Independence*, ed. Leslie Bethell (Cambridge: Cambridge University Press, 1991), 1–15; and Lewis Hanke, ed., *History of Latin American Civilization: Sources and Interpretations* (Boston: Little, Brown, 1967), 1–59. We do not mean to imply that the *mestizos* were the primary instigators of this independence, which was primarily achieved through the efforts of the *gachupins* (nor does the Book of Mormon prophecy suggest their influence but rather appears to portray them as more passive participants in this history).

40. John Sorenson, *Mormon's Codex* (Salt Lake City: Deseret Book, 2013).

41. For an example of discoveries from Central America in Joseph Smith's day that were seen as validating the Book of Mormon, see *The Evening and Morning Star* 1 (February 1833): 71.

descendants of Native American peoples can be considered the children of Lehi, even if their bloodlines were impacted only in minor ways (or even if they are the recipients of that heritage only through some level of cultural contact over the centuries).

This view seems to have been the understanding of Joseph Fielding Smith. In reference to several prophecies in the Book of Mormon (3 Ne. 20:16; 21:12; and Morm. 5:24) and in Doctrine and Covenants 87:5 that in latter days the "remnants" of the seed of Lehi would rise up and vex the Gentiles, he wrote, "It has been the fault of people in the United States to think that this prophetic saying has reference to the Indians in the United States, but we must remember that there are millions of the 'remnant' in Mexico [and] Central and South America. . . . The independence of Mexico and other nations to the south has been accomplished by the uprising of the 'remnant' upon the land."[42]

In addition, other scriptural evidence points to Latin America and parts of today's United States as important locations in the fulfillment of these Book of Mormon prophecies. First, the prophecy in 1 Nephi 13:12 points to a man, most likely identified as Columbus, who went forth "unto the seed of [Nephi's] brethren." Interestingly, the lands that Columbus actually visited during his four voyages were confined to what is now Latin America (specifically, the Caribbean, Central America, and the northeastern tip of South America).

Second, an angel told Nephi that if the Gentiles would "harden not their hearts against the Lamb of God, they shall be *numbered among the seed of thy father*; . . . and they shall be a blessed people upon the promised land forever" (1 Ne. 14:2, emphasis added). The countries in which those of European/Gentile descent have most fully come to be numbered among the seed of Lehi is in Latin America, as a result of the "mestizo" (racial mixing) process. The opposite situation is found in most of the United States and Canada, where the European colonizers did not mix in significant numbers with the original Native Americans.

Third, the preceding prophecy also intimates that the promise of being numbered among the seed of Lehi and becoming a blessed part of the house of Israel is contingent upon the people's choice to not harden their

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42. Joseph F. Smith, *Church History and Modern Revelation* (Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 1953), 1:363. Also quoted in *Doctrine and Covenants Student Manual*, 2d ed. (Salt Lake City: The Church of Jesus Christ of Latter-day Saints, 2001), 195.

hearts against the Lamb of God. This is reinforced by such scriptures as 2 Nephi 9:53, which proclaims that Lehi's remnant would also, in future generations, "become a righteous branch unto the house of Israel."

In Latin America—where the Spanish and Portuguese (with their substantial in-mixing of Jewish blood) colonized, converted to Catholicism, and joined with the descendants of Lehi—the Church is now experiencing some of its greatest missionary successes.

Among the Iberian colonizers who had Sephardic ancestry, this process of conversion to Christianity *first,* followed *afterward* by receipt of the Book of Mormon with its clearer teachings regarding Christ's gospel, seems to be foretold by Nephi in 2 Nephi 25:16: "And after [the Jews] have been scattered, . . . even down from generation to generation until they shall be persuaded to believe in Christ, the Son of God . . . and when that day shall come that they shall believe in Christ, . . . then, at that time, the day will come that it must needs be expedient that they should believe these things [that is, Nephi's record[43]]." Although it must be remembered that reasons for Church growth are complex and multifaceted, missionary work among the nations of Latin America, where this conversion process has occurred, is bringing about a great gathering[44]—and a very strong "branch" of the house of Israel.[45]

This recognition should not minimize in any way the prominence of the United States or the land of Jerusalem in the latter-day restoration. The major physical gathering of the Jewish people, of course, involves their restoration to the land of Jerusalem (3 Ne. 20:29). And the primary location from which the gospel has been restored to go forth to the world has been the United States of America. The place where the Lord raised up a great seer (Joseph Smith) and the central location of the Restoration (and the location of the New Jerusalem) is the United States. Still, this historical overview demonstrates that prophecies regarding Israel can often be fulfilled in many different times and places, having

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43. Nephi uses the phrase "these things" in verses 3, 21, and 22 of 2 Nephi 25 to refer to his writings.

44. See *Deseret News 2013 Church Almanac: The Church of Jesus Christ of Latter-day Saints* (Salt Lake City: Deseret News, 2013), 4, 183, 189–90, 203–9.

45. The membership of the Church in Latin America is now roughly equal to the Church membership in the U.S. and Canada.

application wherever "Israel" is found, provided that the people are willing to "liken all scriptures" unto themselves (1 Ne. 19:23).[46]

Perhaps this merging of Judah and Joseph can also be considered a partial fulfillment of Zenos's grand allegory of the olive tree. In that allegory, he prophesied of the last days, saying, "And the branches of the natural tree [the Jews?] will I graft into the natural branches of the tree [the descendants of Lehi?]; and thus will I bring them together again, that they shall bring forth the natural fruit, *and they shall be one*" (Jacob 5:68, emphasis added). Nephi used Zenos's imagery to make a similar prophecy, declaring that the remnant of "our seed . . . shall be grafted in, being a natural branch of the olive tree, into the true olive tree" (1 Ne. 15:14–16; see also 1 Ne. 10:14).

We are not proposing that this joining of the Sephardic Jews with Gentile nations of Spain and Portugal—and then with the children of Lehi—is either the only possible explanation of these prophecies or that this work of reunification has been completely fulfilled.[47] It does serve, however, as an example of how God works with all his people throughout history, scattering and gathering, dividing and joining together at the correct times in order to bring to pass his eternal purposes.

The prayers of ancient prophets and the resulting covenants of the Lord, that their children would be restored to the true knowledge of their fathers and of their Redeemer, are being answered and realized

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46. For a further discussion of "multiple-fulfillment prophecy," see Victor Ludlow, *Isaiah: Prophet, Seer, and Poet* (Salt Lake City: Deseret Book, 1982), 2–3. These types of prophecies are not recognized by just Latter-day Saint readers but were used by the New Testament authors as well, such as in the famous Immanuel prophecy (Isa. 7:14), which most likely had an initial fulfillment in Isaiah's day, but which was also seen by New Testament authors as a direct prophecy of the birth of Jesus Christ (Matt. 1:23). See Jeffrey R. Holland's discussion of this particular "multiple-fulfillment prophecy" in *Christ and the New Covenant* (Salt Lake City: Deseret Book, 1997), 78–80.

47. As has been mentioned in previous footnotes, the history of Latin America is much more complex than just the conquest period. It also includes the fleeing of the Sephardic Jews and the coming of Ashkenazi Jews to the United States, Argentina, and elsewhere over the course of American and Latin American history. Although many at this point have departed for Israel or other countries, a substantial non-*converso* Sephardic population—in addition to the Sephardic *converso* blood that had earlier been mixed with the children of Lehi—continues to exist in Latin American countries. Howard Sachar's *History of the Jews in America* provides a helpful overview.

today through the combined instrumentality of the Bible and the Book of Mormon. The Lord of the vineyard is laboring among his people and with his servants (Jacob 5:71). He has not forgotten his promises. He has called the descendants of Joseph and of Judah to be instruments in his laboring hands in helping to recover his ancient covenant people through the instrumentality of the records of Joseph and Judah, joined together as one.[48]

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48. See, for example, Jacob 5:19–28, 39, 54, 55, 68, and 70–72.

The Tiptoe

Robbie Taggart

So often the prelude to the rhapsody is the ticking of a clock. Like a toddler waiting to be lifted into an earthly parent's arms, we yearn toward the everlasting arms of God. And sometimes we tire of looking up, hands outstretched, and content ourselves instead with the blocks and toys that surround us. But then the embrace comes and we are raised. And we remember what we were waiting for.

My theology stresses the reality of continued, continuing revelation: God speaks, not spake. It affirms that every person is worth communicating with, even if you're God. No—especially if you're God. But it is sometimes a real wrestle to know when he is speaking and what he wants. It takes attentiveness, and patience. Sometimes weeks pass without a whisper. "And he hath put a new song in my mouth," soliloquizes the Psalmist. Ah, the taste of that song. But two verses earlier, he wrote, "I waited patiently for the Lord; and he inclined unto me, and heard my cry" (Ps. 40:3, 1). The song only comes after the wait, after the cry. And it is always put or placed in my mouth. I cannot conjure it or command it. Every poet knows this. The mornings glisten once in a while. So much scent of sidewalk before the smell of honeysuckle. The music is a gift, and one can only stalk the Spirit and wait. How many hours does a prophet spend under a juniper tree or inside a cave before the gentle rustle of leaves and the still, small voice?

It's sort of like this: Was it last summer we were camping at the Henry Cowell Redwoods? When we pulled up to the forest, four-year-old Emerson said he knew we would see squirrels. But the squirrels in the camp proved very elusive, very timid. After a day of camping, I had seen

brief glimpses of a couple of squirrels and chipmunks off in the trees and bushes, but not a single furry animal made its way into our camp. I asked my young son if he had seen any squirrels. He told me no. So we went on a squirrel hunt. As we walked, I told him to listen very carefully, and if he heard a rustling, we would watch the bushes carefully. After a short distance, the bushes quaked a little. We stopped and strained our attention toward the spot. After watching for a while, we finally caught sight of a slight movement. But as we kept watching, we found only a small bird hopping around in the leaves. We went on. Emerson climbed a tree, and we went down a little trail. No squirrels. I prayed, "Heavenly Father, Emerson knew he would see a squirrel, and it's important to him. Can you help?" Just then I saw a squirrel at the foot of a camper in a nearby campsite. I tried to point it out to Emerson. He couldn't see it. We went closer, slowly. The squirrel ran into the bushes. "Did you see it?" I asked. "I think so. I saw the bushes move." But he wasn't content with that. We surrounded the little rodent and listened as he crashed through the bushes. Now, I have more experience stalking squirrels than my son does, and I've got a bit of a height advantage so I saw the squirrel a couple of times as it darted back and forth. But Emerson never caught a clear view. We walked on. "Well, thanks for trying," I said to God. I bet he laughed at that. "Trying?" Within a few feet, I saw another squirrel at the base of a tree. I tiptoed Emerson over and lifted him up. He saw it. He wanted to get closer, so he walked after it. It ran up the tree, chattering, and another squirrel joined it. Then it happened. Like a flood. Like an ocean wave. Like sunlight or like grace, God poured down what we had so cautiously been stalking. The squirrels ran around and up and down the tree, chasing each other. They ran two feet from our toes. One stopped on the tree, just above our heads and looked squarely at us. I almost thought he winked. He may have been an angel disguised as a squirrel, but my prayer had been answered. Emerson's faith had been answered. The wait had been rewarded. We saw. Our attentiveness had paid off. Sometimes it does.

A day or so later, we were out for a family walk through thick green woods. It was evening and the light was gray and mossy. It slid in sideways to illuminate the trail. We were walking through these curvy, moss-covered trees at twilight, and we saw an owl. First owl I've ever seen. It was hunched in the branches of a tree, and we stopped to tie a shoelace or something. And then it spread its enormous wings and lumbered through the air off to another perch. Grace unbidden.

Days go by, and months, and the reverie remains restrained. The mute muses shy by disguised as fellow pedestrians on the sidewalk we stroll. Life is just life. Mondays are mundane, and nothing extraordinary presents itself. And then the symphony awakens, stretching like a dance; the song is planted and shoots forth and ripens all at once. And we partake of the fruit of the tree of life.

This essay by Robbie Taggart received an honorable mention in the BYU Studies 2014 personal essay contest.

Roy A. Prete, editor. *The Mormons: An Illustrated History of The Church of Jesus Christ of Latter-day Saints.*
London: Merrell Publishers, 2013.

Reviewed by Herman du Toit

Many predicted that the printed book would be doomed by developments in digital media. Far from it. This sumptuously illustrated "coffee table" hardcover publication by Merrell, an independent British publisher, testifies to the value of the printed book. The materiality of the medium emphasizes the synthesis of the complex visual and textual content of this publication—stressing the fact that this is a book and not a digital file after all. Stephen Hales Creative Inc., a design company in Provo, Utah, was responsible for the appealing visual design and layout of the book. The hard cover and dust jacket are both chrome coated to provide the luster of a high-end publication, and the pages are printed on pearlescent, high-quality paper for the same reason. Using a landscape format, the book is illustrated in full color recto and verso, and a two-column and sidebar layout allows the eye to play easily over both text and image without the need to flip pages unnecessarily to find related illustrations. The text is set in fairly conservative Mercury Text typeface from the Hoefler Foundry; this choice resonates with the dignity of the book's subject while at the same complying with the space and legibility requirements of a news column, for which this typeface was originally designed. The subheadings are set in Gotham, a sans serif typeface that imparts a more contemporary look to the printed page.

For this book, more than 250 photographic illustrations have been tastefully selected from a wide range of sources, including Getty Images, *Deseret News* Archives, Brigham Young University, and the proprietary images used by The Church of Jesus Christ of Latter-day Saints for illustrating its published materials. Fine contemporary images by individual photographers such as Val Brinkerhoff and Stephen Hales are also represented. The photographs are spread throughout the publication in various scales and sizes, not only as illustrations for the text but also

to provide variety and hold visual interest. They document the various operations of the Church as an institution, but they also provide some insight into the lives and activities of its members. These illustrations have a warm "human-interest" appeal in their contemporaneity and colorful visual impact. They collectively project the image of a dynamic organization in keeping with the times, with members who appear to be happy, fully engaged, and even fun-loving—a feature that speaks to the positive promotional interests of this book's publisher, editor, and authors.

The most significant aspect of this anthology is that, in reaching out to an intelligent nonmember audience, it is *not* published by a Church- or BYU-affiliated publisher. The book provides an accurate, factual, and lucid account of a variety of topics, including the origins of the Church, its phenomenal success in recent decades in becoming an international Church, its core beliefs, and the lifestyle of its members. This is one of the few publications from any international publisher of repute to overtly and objectively expound the factual history and achievements of the Church, serving as an informative introduction and wide-ranging overview to both members and nonmembers alike.

Merrell has a reputation for publishing books of exceptional editorial and design quality, focusing on secular subjects such as architecture, fashion, graphic design, and interior and garden design. The company publishes only a careful selection of new titles each year. Significantly, this is one of only two books of a religious nature that Merrell has published to date, the other being Judith F. Dolkart's *James Tissot: The Life of Christ* (2009), which is a classic in its own right.

The Mormons: An Illustrated History is edited by Roy A. Prete, who is a retired professor of history at the Royal Military College of Canada, Kingston, Ontario, and has published widely on Anglo-French military relations in World War I. He is editor or coeditor of six books, including *Window of Faith: Latter-day Saint Perspectives on World History* (2005).

The book comprises contributions from a formidable panel of fourteen Mormon writers who tell the story of Mormonism "as seen through the eyes of those who practice it every day" (vii). Each is an authority in his or her respective field and has contributed to one or more of the fourteen chapters. The writers include Susan Easton Black, Richard O. Cowan, John P. Livingstone, Lloyd D. Newell, Craig J. Ostler, Kip Sperry, Brent L. Top, and Mary Jane Woodger, all of whom are professors of Church history and doctrine at Brigham Young University. Additional

contributors are Michael J. Clifton, a prominent lawyer, businessman, writer, and teacher; Neil K. Newell, a long-term employee of LDS Welfare Services and a prolific writer; Carma T. Prete, a former high school teacher and writer; Brent W. Roberts, the managing director of the Meetinghouse Facilities Department for the Church; Helen K. Warner, who is well published and actively involved in family and Church history research; and John W. Welch, who holds a prestigious professorship in the J. Reuben Clark Law School at BYU, is the editor of *BYU Studies,* and is an eminent scholar of biblical and Latter-day Saint scriptures. Notwithstanding the diverse contributions from so many individual writers, the style of writing is remarkably consistent and there are no glaring transitions or dislocations in voice or tone from one chapter to the next.

Individual chapters deal with a wide range of topics that provide for a comprehensive understanding of the formation of the Church, its core beliefs, and its members. The context for the book is quickly established by Lloyd D. Newell, Craig J. Ostler, John P. Livingston, and Susan Easton Black through engaging chapters on Temple Square; Salt Lake City and Utah; and Joseph Smith, the restoration of the priesthood, and the Mormon migration.

Brent L. Top lays out the plan of salvation and the role of Jesus Christ with clarity, conviction, and with the support of well-chosen scriptures. This chapter references the Church's 1995 statement: "The Family: A Proclamation to the World." Top also contributes a chapter on the foundation of prophets and apostles. In response to the question "What Do Mormons Believe?," Top provides the Church's Articles of Faith.

John W. Welch carefully delineates the coming forth of the Book of Mormon and the additional LDS scriptures. The complementary role of these additional scriptures to the Bible is explained, concluding with a tacit invitation to the reader to invoke the promises of the scriptures that explain how one might gain wisdom and "know the truth of all things" (57). The extensive growth of meetinghouses and other Church facilities in many countries is explained by Brent W. Roberts, who highlights their function in helping families and individuals come to know Christ and his teachings.

John P. Livingstone addresses the Mormon lifestyle with its emphasis on the family and activities such as family home evening, scripture study, and family prayer. In addition to providing an informative account of the nature and blessings of the Church's health code—the

Word of Wisdom—this chapter also gives the most definitive and rational statement about the practice of polygamy during the early years of the Church that this reviewer has ever come across.

The Church of Jesus Christ of Latter-day Saints has always placed a high priority on education, and the book devotes an excellent chapter by Mary Jane Woodger to the history and development of the Church Educational System, seminaries, higher education, institutes of religion, and continuing education, including Education Week, Especially for Youth (EFY), and the Perpetual Education Fund. This chapter also succinctly references the honor codes that students at Church-sponsored universities agree to live by.

The welfare system of the Church is addressed by Neil K. Newell, who establishes the scriptural basis for the Church's extensive humanitarian outreach to millions of people across the world in these times of great temporal need. Newell states, "It is impossible to understand The Church of Jesus Christ of Latter-day Saints without understanding its commitment to reach out, lift, bless, and heal the lives of others" (99). He enumerates the Church's extensive worldwide facilities for welfare relief and also stresses the members' belief in self-reliance and reaching out to their neighbors in times of distress.

Richard O. Cowan contributes a chapter on the phenomenal growth of Mormon temples in most parts of the world and answers the question, "Why Do Latter-day Saints Do Vicarious Work for the Dead?" (111). Kip Sperry has authored the chapter on family history and genealogy work that establishes the Church as the foremost leader in this field, taking full advantage of the dramatic technological advances of the digital age. Cowan then contributes a chapter on the burgeoning missionary work of the Church, highlighting the exponential growth of Church membership since the 1960s that has made the Church one of the fastest growing Christian churches in the world. Cowan quotes a non-Mormon sociologist in saying, "Mormonism may be the first important new religion to arise since Islam" (134). The book concludes with a chapter by Helen K. Warner, Carma T. Prete, and Michael J. Clifton on "Mormons Who Have Made a Difference" (137), highlighting various scientists, sportspeople, entertainers, business leaders, and politicians who are members of the Church and have made major contributions in their respective fields.

This is a timely publication that answers key questions that nonmembers might be prompted to ask in their investigation of the Church. It is informative without being overtly didactic or doctrinaire, serving as

a fine and accurate introduction to the Church. Of noteworthy mention is the forthright and candid treatment of potentially contentious topics, such as historical polygamy and the universal ordination of worthy men to the priesthood. Ultimately, it is sure to find a place on the bookshelves of discerning readers in much of the English-speaking world.

Herman du Toit retired as head of museum research at the Brigham Young University Museum of Art in Provo, Utah, in 2011. He has enjoyed an extensive career as an art educator, curator, administrator, critic, and author, both locally and abroad. He is a former head of the Durban Art School and founding director of the Cecil Renaud Art Gallery at the Durban University of Technology in South Africa. He holds postgraduate degrees in art history and sociology of education from the former University of Natal. While at BYU, he was awarded a J. Paul Getty Fellowship for his PhD study of interpretive practices at some of America's leading art museums.

William T. Cavanaugh. *The Myth of Religious Violence: Secular Ideology and the Roots of Modern Conflict.*
New York: Oxford University Press, 2009.

Reviewed by Bryan W. Cottle

Whether or not religion is essentially prone to violence is not a new debate within academia. While many scholars argue religion creates more violence in the world than any other institution, others argue that secular movements are by far the greater culprit, and the remainder struggle to find a middle ground. Despite disagreements, the scholarly discussion has largely hinged on the formation of a religious versus secular dichotomy. Does this paradigm damage our appraisal of religious violence, and are there alternative paradigms to consider?

William Cavanaugh's work, *The Myth of Religious Violence,* answers in the affirmative. Cavanaugh, a professor of Catholic Studies at DePaul University in Chicago, Illinois, is not a newcomer to the discussion of religion in public life. He has dealt with issues such as religion and economics, religion and nationalism, and the Christian reaction to torture. In this recent work, Cavanaugh analyzes so-called religious violence to indicate how this myth is tied up in a secular-religious dichotomy, which has hindered religious violence studies and productive international relations. It is important to note that Cavanaugh does not argue that religion is immune from violence or that secular institutions are just as violent as religion. Cavanaugh's work is interested rather in how the terms "religion" and "secular" were originally constructed and how that knowledge aids in the study of violence. Although published a few years ago, this foundational study has only become more relevant and more needed as violent events in the name of religion continue to escalate in various parts of the world.

In his introduction, Cavanaugh defines the myth of religious violence as "the idea that religion is a transhistorical and transcultural feature of human life, essentially distinct from 'secular' features such as politics and economics, which has a peculiarly dangerous inclination to promote violence" (3). He contends that such a notion is inaccurate

because there *is* no transhistorical or transcultural essence to religion, and any effort to distinctly separate religious violence from secular violence ends up being incoherent. Though the ideas behind the myth are incoherent, the myth remains powerful because Western societies have used it to legitimize the modern secular state. This power of mythos greatly increases the need to deconstruct the falsity of the belief.

To deconstruct the myth, Cavanaugh devotes the first chapter to evaluating the work of nine prominent scholars. These scholars (including Charles Kimball, Mark Juergensmeyer, and Scott Appleby) each argue that religion is violent through either its absolutist, divisive, or irrational nature. However, the definition of religion is debatable and becomes problematic when scholars attempt to make it a construct distinct from the secular and therefore especially prone to violence. Some of these scholars avoid an exact definition of religion in their arguments, making religion so broad that almost anything can be considered religious and inclined to violence. Others simply do not provide any definition of religion at all, assuming that the reader knows what religion is when it is discussed. These approaches fail because they are based on a clean separation between the religious and secular. These nine scholars either blur the line between the religious and secular or completely ignore any "secular" violence.

In chapter 2, Cavanaugh continues to explain why these scholarly arguments fail. He reasons that the distinction between the religious and secular is a relatively new Western construct. In explication, Cavanaugh gives the reader a genealogical history of the word "religion" in relation to its current concept in Western society. Given the shifts in the very definition of "religion," separating it from the "secular" is highly anachronistic because prior to the early modern era religion and politics were never viewed as separate. Taking the reader through ancient Rome, Augustine, Aquinas, medieval Christianity, and the early modern thinkers of the sixteenth and seventeenth centuries, Cavanaugh indicates that "there is no transhistorical or transcultural concept of religion. Religion has a deep history, and what counts as religion and what does not in any given context depends on different configurations of power and authority" (59). Further, religion was never separated from what is currently believed to be "secular." It was the modern West that created the concept of a separation between the religious and secular, and to say that religion "is separable from secular phenomena is itself a part of a particular configuration of power, that of the modern, liberal nation-state as it developed in the West" (59). It is this configuration of power that has legitimized the myth of religious violence.

In chapter 3, Cavanaugh proceeds to the religious wars of sixteenth- and seventeenth-century Europe, which the modern nation-state often uses to validate its existence. From the perspective of the enlightened nation-state, the removal of religion from the public sphere ended the religious wars. However, as Cavanaugh argues, the prevalent assumption that the development of the modern state created the solution to these conflicts is historically false. Cavanaugh deconstructs the religious wars assumption by evaluating the history of the conflicts. Catholics killed Catholics, Protestants killed Protestants, and occasionally Catholics and Protestants joined forces. Cavanaugh also provides examples of how nation builders reinforced ecclesiastical differences as a method of inciting violence. Thus, the idea that elites of the nation-state helped solve the crisis of religious violence is incorrect; they actually aided in creating violence for political ends.

Finally, in his last chapter, Cavanaugh explains how the myth of religious violence has been used not only to maintain a separation of church and state in the United States but also to influence its foreign policy. Unfortunately, Western cultures have often painted Muslim societies as irrational "others" who cannot separate their religion from their politics. This creates foreign policy troubles as the West condemns Muslim acts of violence and justifies our own secular acts of violence. As Cavanaugh explains, the myth of religious violence is often used in maintaining policies or power structures that hinder society rather than help it.

Apart from maintaining policies and power structures that hinder society, the myth of religious violence also prevents the best possible scholarship on religious conflict. Although Cavanaugh's work does not discuss Mormonism, his process of deconstructing the myth is important for those interested in Mormon history. The Church of Jesus Christ of Latter-day Saints has, on rare occasion, experienced, suffered, or been involved with incidents of religious violence, such as the Missouri War and Mountain Meadows Massacre.[1] In engaging with these histories, an understanding of the myth will allow for open discussion of sensitive Mormon history without poorly defaulting to the standard religious versus secular dichotomy prevalent in religious violence studies.

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1. For relevant studies, see Alexander L. Baugh, *A Call to Arms: The 1838 Mormon Defense of Northern Missouri* (Provo: BYU Studies, 2000); Ronald W. Walker, Richard E. Turley, and Glen M. Leonard, *Massacre at Mountain Meadows* (Oxford: Oxford University Press, 2008); and *Mountain Meadows Massacre: The Andrew Jenson and David H. Morris Collections* (Provo: Brigham Young University Press, 2009).

For example, Jon Krakauer's depiction of Mormon and Mormon fundamentalist history in *Under the Banner of Heaven* falls into the problematic analysis Cavanaugh warns against.[2] From its very prologue, Krakauer associates the concept of religion as a transhistorical and transcultural feature of human life, separate from a secular world, that for some reason inevitably brings the inclination or promotion of violence. In other words, Krakauer falls into the myth of religious violence. It just so happens that in his evaluation of the nature of religion, he uses Mormon history to promote his perspectives, including stories such as the Mountain Meadows Massacre. This is just one example of how Cavanaugh's work can help improve future scholarship regarding religious violence in general, and more specifically that of Mormon conflict.

The scholarly task Cavanaugh undertook in deconstructing the myth of religious violence was complex and tedious. Nevertheless, he patiently untangles the myth of religious violence in a coherent manner. Unfortunately, his evaluations can become tedious for the reader. The first chapter of the book is designed to be theory driven and, as mentioned earlier, Cavanaugh deconstructs the work of nine authors in a protracted fashion. Despite the length of this deconstruction, the discourse is crucial for understanding Cavanaugh's argument. Recognizing that the general reader might find even the opening portion of the prose difficult to finish, Cavanaugh actually apologizes for trying his readers' patience (57). Even so, his thoroughness can also be a strength. Professors and students of religious violence will greatly benefit from the opening chapter's summary of the current scholarship.

The Myth of Religious Violence does not try to find middle ground between the tensions of a religious versus secular discourse but instead creates a new direction for religious violence scholarship. In deconstructing this myth, Cavanaugh not only sets the bar of future scholarship higher but also avoids oversimplifications that can obstruct conflict resolution. Future scholarship on religious violence will inevitably need to interact with the theories laid out in this book.

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2. Jon Krakauer, *Under the Banner of Heaven: A Story of Violent Faith* (New York: Doubleday, 2003).

J. Spencer Fluhman. *"A Peculiar People":*
Anti-Mormonism and the Making of Religion
in Nineteenth-Century America.
Chapel Hill: University of North Carolina Press, 2012.

Reviewed by George L. Mitton

Latter-day Saints were often surprised or astonished at the amount of anti-Mormon rhetoric and sentiment that seemed to come out of the woodwork during the Romney candidacies. While to a varying degree there has always been an obvious anti-Mormon backdrop, it is an awakening to realize the strong, latent undercurrent that surfaces at times. J. Spencer Fluhman's book on anti-Mormonism in the nineteenth century is a helpful contribution to an understanding of the origins, sources, trends, and implications of such religious aversion. Fluhman is a professor of history at Brigham Young University and editor of the *Mormon Studies Review*. The study is a revised and augmented version of his doctoral dissertation at the University of Wisconsin–Madison. His wide-ranging research here is a tour de force, often consulting obscure or neglected sources and providing a very useful bibliography. As discussed by Fluhman, the well-selected sources are interesting and instructive. The work presents an insightful overview that not only offers new information and evaluation but also puts in better perspective previous specialized studies of early anti-Mormonism.[1] For this

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1. Important specialized works on nineteenth-century anti-Mormonism would include: Terryl L. Givens, *The Viper on the Hearth: Mormons, Myths, and the Construction of Heresy* (1997; updated ed., New York: Oxford University Press, 2013); Patrick Mason, *The Mormon Menace: Violence and Anti-Mormonism in the Postbellum South* (New York: Oxford University Press, 2011); Sarah Barringer Gordon, *The Mormon Question: Polygamy and Constitutional Conflict in Nineteenth-Century America* (Chapel Hill: University of North Carolina Press, 2002); Megan Sanborn Jones, *Performing American Identity in Anti-Mormon Melodrama* (New York: Routledge, 2009); and relatedly Craig L. Foster, *Penny Tracts and Polemics: A Critical Analysis of Anti-Mormon Pamphleteering in Great Britain, 1837–1860* (Salt Lake City: Kofford Books, 2002).

study, the Mormon History Association awarded Fluhman its Best First Book award in 2013.

Fluhman's study is both political and religious. While the historical overview of anti-Mormonism is impressively succinct, the analysis of its affects—not only upon the Mormons but more notably on those who disparaged them and on the American nation generally—is a major strength of the study. Important political and social consequences are discerned and featured, together with the "intellectual dilemmas faced by those who attempted to explain or categorize a controversial but vibrant new faith" (1). Fluhman holds, and convincingly demonstrates, that the exchange between Mormons and other communities helped to determine what was to be considered an authentic religion in America, in contrast to movements thought to be false and to be originated and continued by imposture. This was an important process in a land where there was not to be a governmentally established religion. Fluhman sees his study as "less a history of the Latter-day Saints than it is a history of the idea of religion in nineteenth-century America" and one that, considering the story of the Mormons and their detractors, "offers an unmatched view of the underlying problem haunting American religious liberty: Who decides what is religious in a disestablished polity?" (10). Thus the book "argues that through public condemnation of what Mormonism was, Protestants defined just what American religion could be" (9).

Anti-Mormon approaches varied across the nineteenth century, as did Mormon responses under changing conditions. While admittedly beginning with an oversimplification of a matter that is later discussed in much greater detail, Fluhman first summarizes the development of anti-Mormon efforts in three basic stages. In the first, opponents of the Mormons alleged them to be delusional. Later they claimed the movement to be alien, and finally they labeled it a false religion. The first two chapters of the book provide a good summary of their allegations against the early Mormon leaders, and especially their assertions about Joseph Smith. The Prophet's critics made him appear as one of many in history that formed a long line of religious imposters, while also likening him to contemporary figures that were discredited. The earliest anti-Mormonism appears to have been less concerned with Mormon beliefs than with the character of the Prophet, who was assumed to be a charlatan who duped his deluded followers. This is a useful and informative chapter, where many illustrative examples are given to show the early pattern of opposition to Joseph Smith and the defamation of his character.

The book contains a perceptive discussion of the concept of "delusion," showing that the charge of Mormons as delusional was made with great frequency. There is much interesting detail here. Mormons believed they had the precious gifts of the Spirit; opponents saw these as delusions and wondered how Joseph Smith could bring about such striking effects on a rather large scale. They often attributed these extraordinary occurrences to "mesmeric clairvoyance" or Joseph's alleged hypnotic powers (49). They considered these delusions as familiar and typical of phenomena observed at times in the Christian past when fanaticism was manifest. Because they regarded Mormon leaders as frauds and their followers as deluded, anti-Mormons were not disposed to consider Mormonism as simply another church. They interpreted Mormon religious practices "as a menace rather than a unique version of the Christian gospel" (76–77). Many Latter-day Saints sense that this anti-Mormon attitude, formed then, established a pattern that still persists among some today.

In his final chapters, Fluhman embarks on a remarkably concise summary of the effects of Mormon practices and teachings on the Saints vis-à-vis their neighbors and the nation. The doctrine and practice of the Gathering is given particular attention. Mormon gatherings in New York, Ohio, Missouri, Illinois, and the Mountain West caused others to take a closer look at Mormon teachings and theology. Such clustering made it easier to assume that Mormon motivations and intentions were dangerous. Mormon prophecies of the end times were deemed particularly troublesome, along with their concepts of the Kingdom and a growing secular and political power. Yet the Saints saw the prophecies as offering great hope and a promise that God was beginning to establish a new and glorious order of peace, harmony, and true religion. These matters are given an enlightening analysis, as are the relations with the nation during the last half of the century—when concepts of theocracy and empire strongly emerged and polygamy was emphasized, only to be strenuously opposed by many as exotic and un-American and eventually abandoned under federal insistence. That abandonment, and subsequent statehood for Utah, brought about some accommodations and changes in Mormonism that have been variously held by scholars to be "transition" or "transformation" or "accommodation" or "Americanization" or "assimilation," each having their "explanatory strengths and weaknesses" (140).

As a result of these and other changes, the end of the nineteenth century brought a somewhat more hopeful outlook for relations between

the Mormons and the nation. Americans were much more inclined to consider Mormonism as a religion, although important questions remained. "By 1900 . . . Mormonism hovered between Christianity and a non-Christian religion, between history and comparative religion, and between material reality and sacred myth" (146). There is an ambiguity here, Fluhman observes, that "makes debates over Mormonism an unmistakably rich source from which to view American conceptions of religion" (146–47). This fact is surely evident in his concise, informative, well-researched, and insightful book.

George L. Mitton received a master's degree in political science from Utah State University and did further graduate study at Columbia University. Long interested in Church history and doctrine, he served for a decade as an associate editor of *The FARMS Review* and published there. He is now retired from a career in education and state government in Oregon.

Ender's Game. Written by Gavin Hood and
Orson Scott Card. Directed by Gavin Hood.

Summit/Lionsgate, 2013.

Reviewed by Scott R. Parkin

Orson Scott Card might well be the most versatile, and one of the most Mormon, fiction authors writing today—a true "storyteller in Zion," as suggested by the title of one collection of his essays. Though primarily known as an author of science fiction and fantasy, Card has also written historical, slice-of-life, literary, and horror fiction for print, stage, and screen, as well as a wealth of essays, reviews, and social commentary. He has been recognized for his excellence by such diverse organizations as the Science Fiction and Fantasy Writers of America (SFWA) and the Association for Mormon Letters (AML).

Yet of the hundreds of titles he has published, his most popular work by far is the science fiction novel *Ender's Game.* Originally published in 1977 as a novelette in *Analog* magazine (his first professional SF publication), Card later expanded that core story to novel length and published it in 1985 to significant popular and critical acclaim, where it won both the Hugo (fan-voted) and Nebula (author-voted) Awards for best science fiction novel of the year.

Rumors began almost immediately about a possible screen adaptation. Card's formal education was in drama at Brigham Young University, so the idea that Ender's tale would eventually be made into a movie seemed self-evident. Card is also famously hands-on, so it was clear that such an adaptation could only be made with his direct participation in the process. For much of thirty years, fans eagerly anticipated a film while hearing stories of screenplays, animations, and numerous false starts. The film was finally released to theaters in 2013 and made available on digital media (Blu-Ray, DVD, digital HD files) in 2014.

It is difficult to consider any work by Orson Scott Card without also considering his self-announced role as a storyteller in Zion who has taken it as a duty to tell stories both of Zion and to Zion.

Card says that he does not intentionally infuse his general market fiction with Mormon thematic elements. At the same time, he has never made a secret of his Mormonism, and he has been an active proponent of Mormon storytelling throughout his career. Just as importantly, he has led by example in illustrating a wide variety of ways that Mormon authors can express and celebrate their essential Mormon ideas and identities in both overt and indirect ways.

He has offered direct Mormon historical tales such as *Saints/Woman of Destiny.* He has used Mormon history as allegory to create fantastic worlds in the "Tales of Alvin Maker" series. He has used plot structures and themes from the Book of Mormon as a framework for his "Homecoming" science fiction series. He has extrapolated a future, postapocalyptic Mormon culture as setting (rather than theme) for a series of short stories collected in *Folk of the Fringe.*

Card's work on various pageants, particularly the Hill Cumorah Pageant, vivifies specifically Mormon insider stories told for generally Mormon audiences. He has regularly used explicitly Mormon characters dealing with events that impact—and are impacted by—that identity in both short stories such as "America" and in novels such as *Lost Boys.* Orson Scott Card has been so evidently Mormon in so many different ways that one cannot help but look for some degree of thematic—if unconscious—Mormonism even in an obviously broad-market, genre title like *Ender's Game.* And for me there were some strong Mormon resonances.

First and most obvious is Ender as a Christ image. He is born under exceptional circumstances and comes early to a knowledge of his potential. He is separated from family and finds himself educating his supposed instructors in their own temple. He gathers close and loyal disciples in defiance of both community and leadership. He is crushed by the weight of his responsibility, yet he goes forward on his own terms. He becomes the agent to save all mankind from death—certainly not a uniquely Mormon concept, yet still very resonant for me as a Mormon.

Another resonance is found in a broad inversion of Laban and Nephi's band of men in relation to Ender and the battle school. Rather than one old man being sacrificed by a party of young men to preserve a nation, a council of old men choose a young man as sacrifice to preserve a people (also in keeping with the Christ image). And again: a young man sacrifices an entire nation (save one) to preserve his own. Inversions to be sure—not to mention a bit of conceptual stretching—but I found a specific resonance there.

Likewise, there is a moment toward the end of the film where Mazer Rackham explains that the Maori tattoos covering his face and neck serve as a reminder of his fathers and enable him to speak for the dead. This directly resonates with the idea of the hearts of the children (Mazer, Ender) being turned to their fathers, and the hearts of the fathers (Mazer, Graff) being turned to their children for salvation.

Card is adamant that such things are not done intentionally, and I believe him. But for me as a Mormon viewer approaching a story told by a publicly Mormon storyteller, I have to wonder if the tales we tell—whether to ourselves or to others—cannot help but be infused with the stories, ideas, and themes that resonate with us at our deepest and most personal levels. It appears that noted scholar Michael R. Collings has also considered that question. In his book *In the Image of God: Theme, Characterization, and Landscape in the Fiction of Orson Scott Card,* Collings offers detailed critical analysis of *Ender's Game,* among other works. As Card suggested at a recent conference in reference to Collings's observations, "I consciously believe in Mormonism. I'm relieved to discover that I am also subconsciously Mormon."

As a long-time fan of the novel, I was leery about the film. While I generally tease book-purists who demand that films exactly match their reading experience (adaptation into a different medium requires a reimagination rather than a simple retelling), the early signs were that this adaptation took a lot of creative liberty with the original text. And I knew that while Card was heavily involved in early ideation, he had been contractually separated from the project prior to script finalization, filming, or editing. How much essential Card—and Ender—would be lost under competing interpretations from screenwriter, director, actors, and art direction?

It turns out the preemptive worry was largely unwarranted. This is a strong adaptation that remains faithful to both the plot and thematic content of the novel. The acting was solid, with a satisfyingly understated performance by Harrison Ford as Colonel Graff and a strikingly effective performance by Ben Kingsley as Mazer Rackham. Asa Butterfield did a creditable job as Ender. Though I found the overall depiction of Ender to be a little too moist-eyed for my tastes, that opinion had more to do with the script and the challenge of showing Ender's increasing isolation while steadfastly refusing to let his tormenters see it. It was a nearly impossible role to pull off, and I think Asa Butterfield did as well as could be hoped without giving in (too much) to indulgent emotionalism or maundering displays. The visual effects were excellent and

exceeded even my own active imagination for what the battle school might look like.

More importantly, I believe the film stands well on its own as a story that is both intellectually and emotionally satisfying. The film necessarily combined and condensed many elements. I found that effort effective and clean. Yes, some useful detail was lost; some complexity and nuance were skimmed over. But the core ideas and themes remained strong, and the key narrative goals were effectively realized. Reading the novel will improve enjoyment of the film and deepen many of the details but is not necessary to understand it at a foundational level.

Fortunately, I was able to actually test that question at the theater. It happened that four young viewers between the ages of fifteen and eighteen were sitting in the row directly in front of me. It also turned out that none of them had read the novel (only one knew there even was a novel). I took the opportunity to interview them separately, and all of them understood exactly the nature and consequence of Ender's crisis at the end, proving the film's effective and independent realization of the book's core elements.

Ender's Game is a solid, entertaining film that can appeal both to those who have read the novel and to those meeting Ender for the first time. Though Card himself has remained resolutely silent on his opinions of the adaptation, I recommend it without reservation—both as a broad-market science-fiction tale and as a story that can resonate specifically with Mormon audiences in deep and profound ways, as told from the mind and heart of a storyteller in Zion.

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Scott R. Parkin is a writer, editor, publisher, essayist, and critic who has published stories in a wide variety of venues, including *Irreantum, LDS Entertainment, Marion Zimmer Bradley's Fantasy Magazine, The Leading Edge, Galaxy,* and *BYU Studies* (where he won half the prizes in the magazine's only fiction contest). He has taught writing at BYU, was a regular contributor to AML's *Dawning of a Brighter Day* blog, and recently won a prize in an international science fiction and fantasy writing competition.

Mitt. Directed by Greg Whiteley.
Netflix Original, 2014.

Reviewed by Hunter Phillips

Independent of political ideology, the 2012 election signified the apex of the "Mormon Moment," a period during which The Church of Jesus Christ of Latter-day Saints occupied a greater space in the public consciousness than perhaps ever before. This moment was defined largely by Republican candidate Mitt Romney, arguably the most well-known Mormon to those outside the Church. His ascendance to the presidential nomination was a historic moment for the Church and its members, for whom national relevance represents a major shift in their self-awareness. Despite his own ubiquity during the election cycle, Romney remains an enigma to the average American. However, his inscrutable nature never appears to be a plea for privacy—the man has spent most of his adult life in the public sphere. Rather, at face value, he appears to simply be a respectable figure, a competent, seasoned politician and family man without any exceptional flaws or attributes. In the world of politics where tabloid drama and Hollywood flair are increasingly expected, Mitt Romney is sometimes seen as, in a word, boring.

This is the dilemma Greg Whiteley—an alum of the Brigham Young University film department and director of *New York Doll*—faced when collecting footage gathered from 2006 to 2012 to create the documentary *Mitt,* which premiered at the Sundance Film Festival in January 2014. Whiteley had a responsibility not only to accurately portray Mitt Romney as a man and politician but also to bring out his humanity in the process. The documentary takes on the challenge of making an audience care about someone who does not necessarily matter much to their future. *Mitt* is a film focused on introducing Americans to the private side of a man who, chances are, will not have such a momentous

public life once again. History indicates that, with a few notable exceptions (such as Al Gore), the losers of presidential elections fade into footnote-dom. Whiteley takes this struggle on, and he seems to have played some part in Romney's recent political resurgence. While the film condenses six years of political history into a ninety-minute package, the result is actually perfunctory in its politics. The film is most enlightening in its moments of private contemplation.

Consider *Mitt's* tagline: "Whatever side you're on, see another side." The film positions itself as a revealing documentary into the inner life of Mitt Romney, particularly targeted at those who may have vilified him during the election. I contend that the public perception of Romney was not usually one filled with vitriol. He was mainly seen as an upstanding figure, and conversations drifted more toward his politics than his personal life—and if the personal ever came up, the questions were whether there was more to him than the steely public persona. As such, Whiteley's incredible level of access to Romney over the course of both the 2008 and 2012 elections presents an opportunity to reveal a great deal about Romney, a level of intimacy rarely granted by a presidential candidate. It is surprising, then, that *Mitt* holds so much back from the viewer, seeming to cut away just as something interesting, something multidimensional, is about to happen.

The film shies away from discussions of partisan topics—it is decidedly neutral in its politics. The only moments at which Romney appears to have an opinion are in brief mentions of American small business owners. During moments of frustration, such as after the disappointing second debate of the 2012 election, Romney and his family gather backstage and discuss the aftermath. The atmosphere is uncomfortable, and it seems to be a moment when Whiteley would have been asked to turn his camera off. The footage continues on, but even in the pressure of the moment, it is difficult to perceive what Romney is feeling. He mentions some numbers, asks for more statistics and shakes it off with a resigned private shrug. This and other scenes may indeed be accurately representing what happened on the campaign trail, but it makes for a documentary that is purely document, with few new windows into the subject's personality.

If the film is disappointing in its treatment of Romney the politician, it can perhaps be attributed to the filmmaker's constraint in taking a political stance. This is, after all, not a political hit-piece. It is a film released after the fact, when the politics matter far less than the private

moments. *Mitt* succeeds more often in these moments than when it attempts to serve as a historical record of the election process. One of the opening scenes is a family vacation from the period before the 2008 election. Romney plays with his children and grandchildren, tobogganing down a hill and throwing snowballs at each other. Romney is asked about a pair of old, duct-taped gloves he wears, despite having been given a new pair the year before. "Aw, these still work great," he responds, a remark that could surely be spun into a story about frugality in a campaign situation. Here, though, it reads as complete sincerity. This single shot involving Romney's gloves is a microcosm of the film's more worthwhile goal—to reveal him not as a political machine but as a man with his own ideas and inner life.
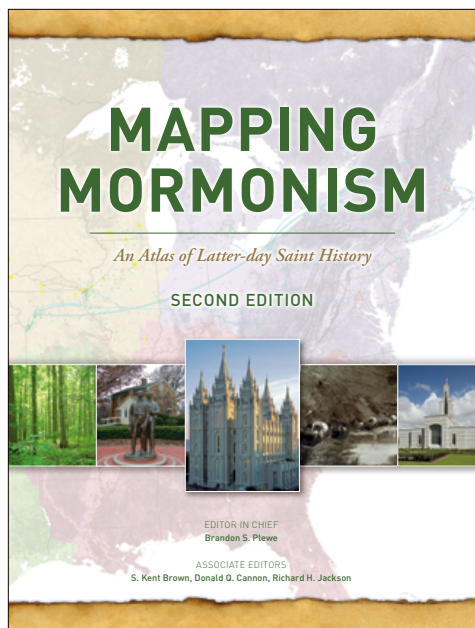
Such moments magnify the fortune that Whiteley had in receiving this sort of access to the Romney family. Throughout the film, it is clear that he is an embedded presence in this family's lives, most clearly in a moment when some of the many grandkids wave to the camera and say, "Hi, Greg!" This indicates not that Whiteley is a patsy, simply in the back pocket of the Romney campaign, but rather that he is a highly specialized home movie director, quietly observing life as it happens. His *verité* style is not overly concerned with composition—in fact, many shots are obscured by a plant or piece of furniture—but his camera lingers in the right moments, such as in family prayers and moments of contemplation. It quickly becomes clear that Whiteley's primary motive is to make an apolitical film about politics. In that respect, he mostly succeeds, even if the film puts up a facade as a political document.

Mitt succeeds as a representation of a man on the cusp of something monumental and moves the audience's perspective away from that magnitude and into a smaller, more private point of view. Remarkably, that private view may have helped Romney's public prospects. Whiteley also approaches Romney from a familiar, Mormon perspective. Idiosyncratic aspects of Romney's personality make more sense after a life in the LDS community. Those who championed Romney solely because of his religious convictions will leave unabated. The film, while never indicating that Romney's inherent decency is a result of his Mormonism, also does not ask viewers to *not* make that connection. The aspects of family life that general audiences may be warmed by are deeply familiar to anyone who has attended a sacrament meeting or family home evening. The rituals and traditions on display, while never identified by name, are plainly there. As such, *Mitt* functions as a kind of home movie

about the classically traditional Mormon family. As the Church itself works to expand the characterization of its members, the film still functions well as an ideal of that representation. Even if it is innocuous as a political statement, *Mitt* is an engaging film that offers multiple insights to non-Mormons and even offers new readings to those in the fold.

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Hunter Phillips is studying writing and directing in the Media Arts program at Brigham Young University. His academic interests primarily focus on television, interactive media, gender, and American cultural history.

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