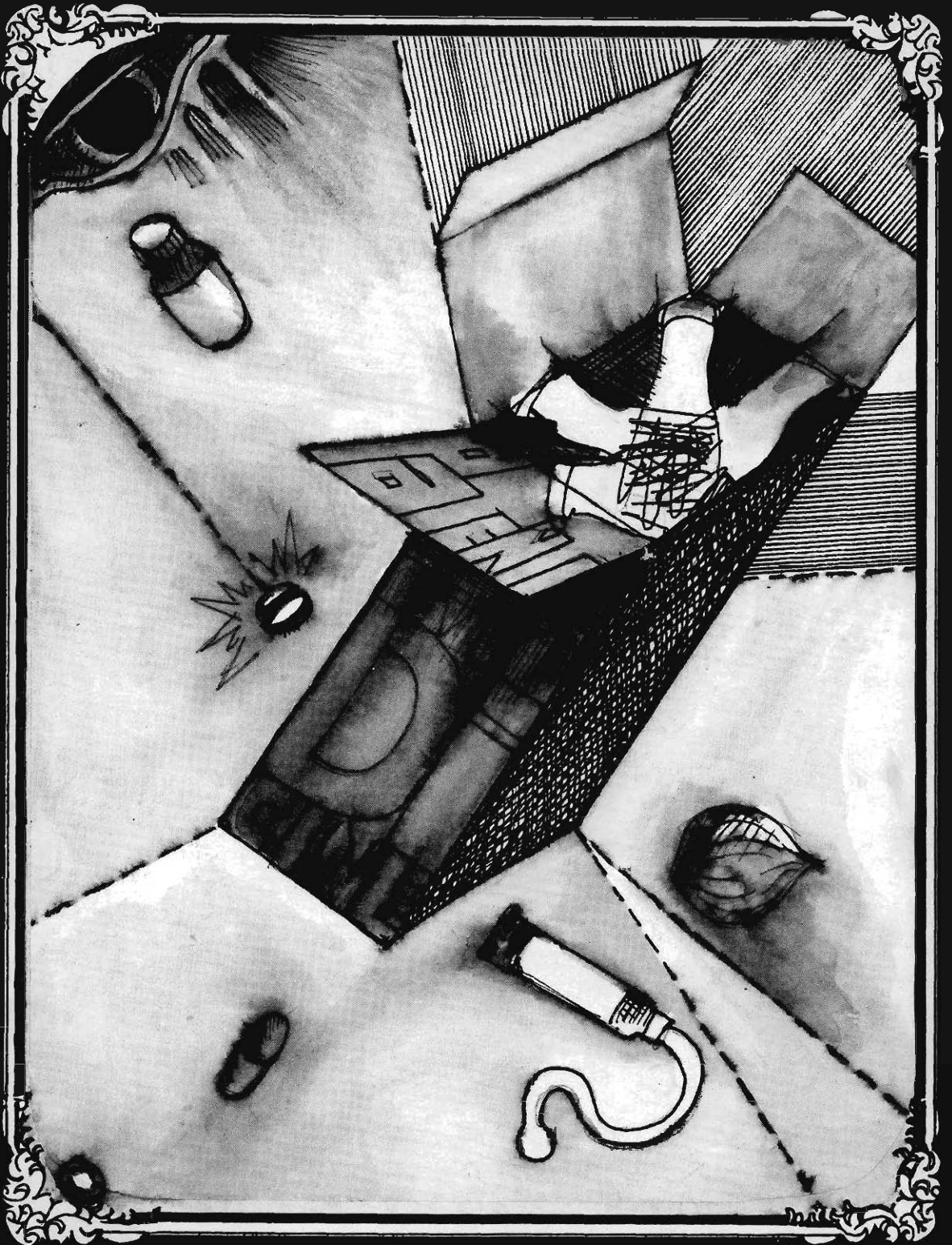
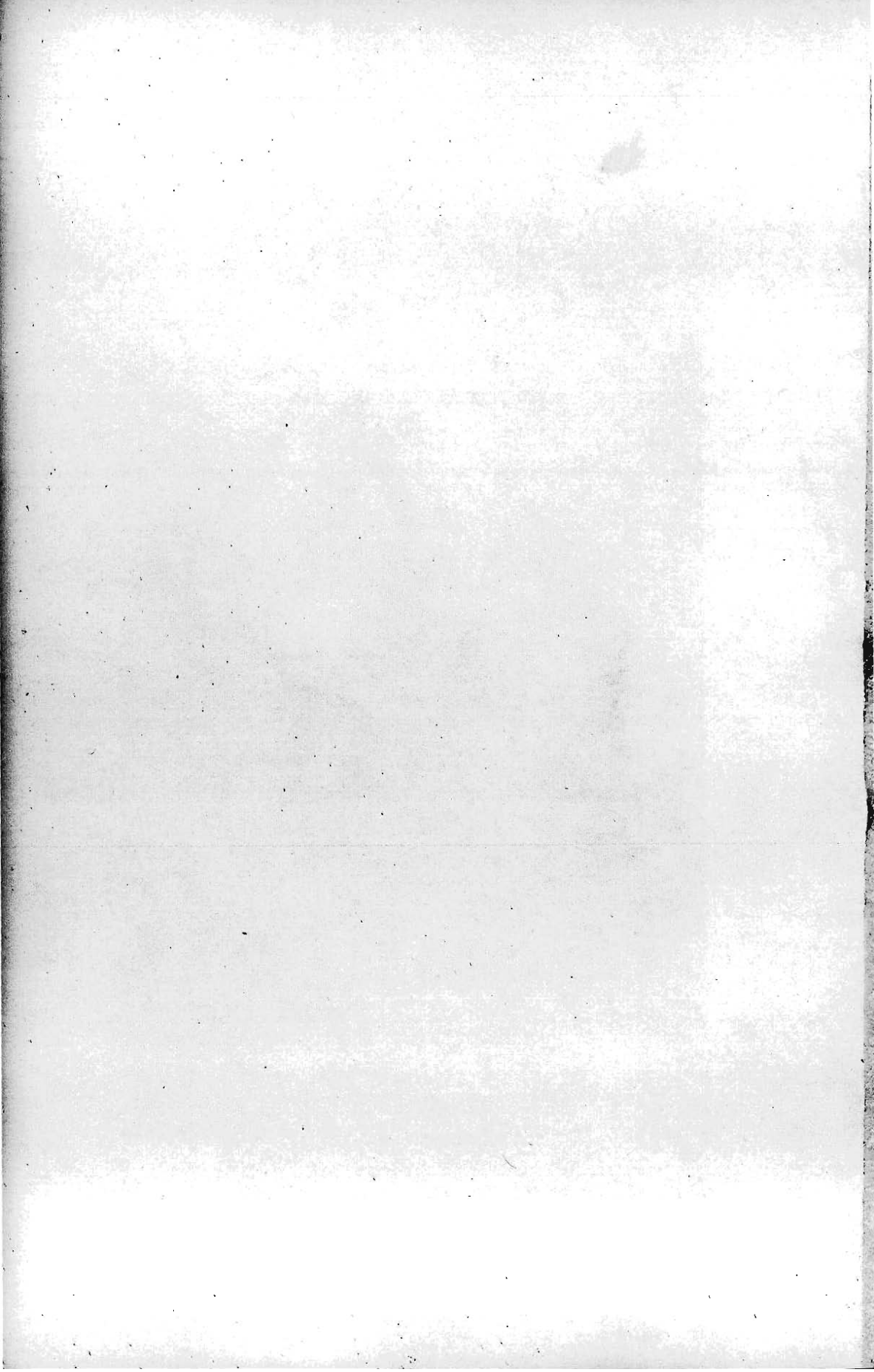
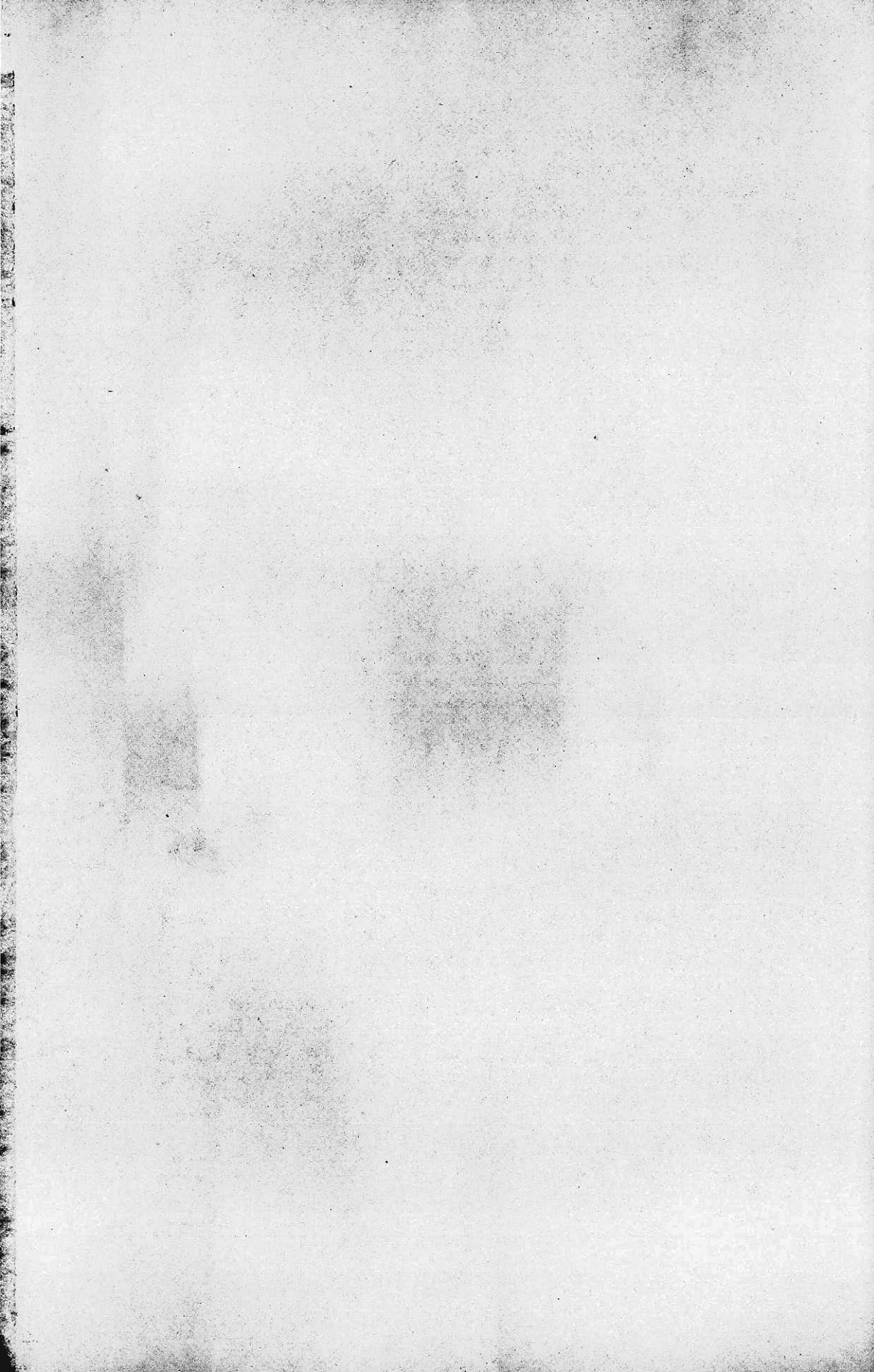


# DIALOGUE

a journal of mormon thought







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human experience as a whole and to  
foster artistic and scholarly  
achievement based on their cultural  
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# LETTERS TO THE EDITOR

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## a fresh understanding of a prophet

The interview with Edward Kimball in the Winter 1978 issue of *Dialogue* is the closest I have come to his book, *Spencer W. Kimball*, since it was given to me as a gift a year and a half ago. I liked the movie *Rocky* until it became the inspiration for too many Sunday School talks, and it was for the same reason that I shelved Edward and Andrew Kimball's biography of the prophet. I grew weary of members' repeated astonishment at the fact that President Kimball's feet are anchored on the earth and have shuffled down the same path the rest of us trod. But at least we can now more comfortably relate to a living prophet rather than worship an immortalized one.

Kimball gives an honest assessment of his work, which in turn gives readers and readers-to-be a better understanding of the biography. Because of their authors and subject matter, Bookcraft and Deseret books are often accepted as having been immaculately conceived, but Kimball assures us that *Spencer W. Kimball* is a flesh and blood work that required research, editing and compromise. Kimball is willing to admit the book's faults, and he spells out specific ways the book could be improved. One of his suggestions for improvement is to perhaps be more analytical about his father by evaluating him in the context of his spiritual and secular experiences. Such an approach would certainly be surprising, innovative, unorthodox and definitely worth reading. Kimball claims it would constitute another book. As it is, *Spencer W. Kimball* has invited a fresh understanding of a Mormon prophet, but I certainly would not neglect Kimball's suggested second volume as long as I have his first.

Thane Young  
Oakton, Virginia

## moving along musically

I appreciated your tribute and articles about Dad in *Dialogue* (Vol. XI, No. 4). Very thoughtful and a touching thing to do. He influenced many thousands of us, including his own family. We continue to miss this kindly giant.

Someone ought to do an article on the Mormon musical, of which there are now many, many. Lex de Azevedo's ("... Warrior," "My Turn . . .," "Diary . . .") are still the best as far as impact, but Salt Lake is full of others every summer when we visit. One of them (plus Lex's), "The Day the Rain Fell Up," traveled through the Northwest last winter and packed the Portland Civic Auditorium with some 3,000 people (often families with four or five children, and at \$4 to \$6 a throw). If that isn't having an impact outside of Salt Lake/Church sponsored circles, I don't know what is. Right now, in my opinion, the musical is having the most lasting impact on the Church membership of any single media effort. And it's surprising how many Saints are writing these things. Not all are good—very few are—but much money and time is being spent on them. And people will pay lots of money to see them.

A. Laurence Lyon  
Monmouth, Oregon

## the dialogue diet

Enclosed please find a cheque to the amount of \$10.00—student rate to renew my subscription to *Dialogue*. I am currently going into my third year's subscription and want you to know that if I had to, I'd forego roast lamb, mint sauce and even pavlova dessert (all part of the mythical Kiwi national meal) to ensure my regular diet of *Dialogue*, a magazine that has truly helped me in my continuing quest as a faithful Latter-day Saint, to correlate and understand truth as revealed both from heaven and scholarly enquiry.

I am very interested in your current international issue plans. I think it is appropriate that *Dialogue* should at this time devote its energies to this important aspect of the contemporary restored Church. The Mormon scholarly community is growing internationally. Not only are young people in countries around the world filling missions in greater numbers than before, they are also filling univer-



sities and seeking to extend an influence in the academic world. In my own case, I have been a member of the Church since 1973, still the only member in my family, have filled a mission to Australia and am currently in the second year of an anthropology degree. I am proud to be a New Zealand Mormon—a definite minority in the scholarly world!—but my feelings of national pride are subordinate to my concerns for the greater sister- and brotherhood of the Kingdom of God which transcends parochial concerns and national sovereignty.

I continue to pray for your efforts and look forward to many more rich, challenging and enlightening experiences as I ponder and absorb issues to come.

Ian G. Barber  
Nelson, New Zealand

#### *dialogue journey*

Thanks for your prompt dispatch of my first copy (which must have been fairly soon after you received my subscription)! Assuming the distance from Arlington to Manchester to be circa 3,200 miles, then the fifty-six days the journal took to arrive represents a speed of around fifty-seven miles per day! That is barely an improvement on the average (maximum) daily travel distance of Early Modern Europe (16th and 17th centuries) which was around fifty miles per day; it is far less efficient than the Incas' reputed 150 miles per day *on foot* during the same period. Even a good sea-journey at this time might well compare favourably (given good weather) to the time of the "Dialogue-journey." It is comforting, though, to know that some things really haven't changed that much.

The wait was worth it. Dian Saderup's letter pointed rightly to the gap in Hugh Nibley's brilliant article and enhanced the meaning of *Dialogue*; what does President Kimball do with his tie-cuttings, I wonder? The little insights into his character were "magic" (Scottish term: "Jimmy")! And T. Edgar Lyon seems a giant of a man who few English people (and, no doubt, fewer English "Saints") have ever heard of.

But will the next issue take so long? For me, your deadline for contributions

to the forthcoming international issue passed some 2,052 miles E.N.E. of Washington D.C. (or thirty-six days out of port!). I hope your other "international" subscribers got their copies well in advance of June 30 so that we do indeed get a truly international issue in 1980. Till then, best wishes.

Ross Andrews  
Manchester, England

#### *english saints*

With regard to the coming international issue, I can only think of those things that interest myself most: the relationship between Church members and the surrounding society, the conceptions and attitudes held by members and "gentiles" toward each other. The topic of the relationship between societal attitudes and those of Church members interests me because of an observed intensity of the feeling of being "persecuted" among English Saints compared with those in the USA. Indeed, in the only survey I know of that has dealt with some of the views of the wider society held by the Saints, a number of interesting differences were demonstrated vis-a-vis other more established religious groups. Personally, I would like to read contributions from interested persons giving their views of their particular societies and what they think those societies think of them. I would have thought some interesting differences might be shown between secular societies (like mainland Britain) and societies where religious affiliation is still important in terms of numbers and broad social values (Italy as an instance).

I think it is of great importance that a forum be established on an international basis to allow a spread of insights beyond the specifically American context to a very diverse set of intellectual perspectives.

Nigel R. Johnson  
Manchester, England

Note: *Though our original optimistic deadline has passed, we are still accumulating manuscripts for our international issue. We are especially interested in hearing from citizens of other countries.*

# *His Chastening Rod: Cholera Epidemics and the Mormons*

ROBERT T. DIVETT

IN THE SPRING OF 1826 cholera broke out in the delta area of the Ganges River in India and began to spread over the country. Within two years Asiatic Cholera ascended the river with its boatmen and passed over the northwest boundary of the Indian subcontinent. Within another year cholera crossed the deserts with the caravans and reached the Caspian Sea. By 1830 it stretched deep into Russia and the Near East.<sup>1</sup> While Joseph Smith and his followers were congregating in Kirtland, Ohio, some 50,000 Mohammedan pilgrims met at Mecca. Cholera was an uninvited guest and nearly half of the pilgrims fell victim to the disease. As they fled the holy city, the pilgrims carried the disease to their homelands around the Mediterranean Sea.

From the Caspian Sea the pestilence crossed by boat and caravan to the Black Sea where it ascended the Danube into southern and central Europe. Meanwhile, it spread through Russia along the rivers from the Black and Caspian Seas and traveled along roads and trails to the Baltic Sea. Cholera first appeared in England in October 1831 in the mining port town of Sunderland and then spread across England, Scotland, Wales, and Ireland. It reached Belfast and Dublin in time to catch the great wave of Irish emigrants to America in the spring of 1832.

While cholera swept the Old World, millennialists in America watched for harbingers of the awaited second advent of Jesus Christ. Cholera fit the description of one of the ominous pestilences of every kind that were to be

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ROBERT T. DIVETT is Associate Professor of Medical Bibliography at the University of New Mexico, Albuquerque, New Mexico.

poured out upon the whole world.<sup>2</sup> When reports of the spread of cholera in Europe and central Asia reached the members of the Church of Jesus Christ of Latter-day Saints, they joined other millennialists in proclaiming the pestilence to be the wrath of God. The first issue of the Church's *Evening and Morning Star* (Independence, Missouri) in June 1832 devoted more than a third of a page to "The Cholera Morbus." Editor William W. Phelps wrote:

It is with no ordinary feelings that we select an item or two, in relation to the Cholera Morbus. Its ravages, for the past year, on the Eastern Continent, have been great, so that, if ever the pestilence walked in darkness, or destruction wasted at noon day, now is the time, but the Lord hath declared that it should be so before he came in his glory, and we have only to rely upon him for deliverance, when he sweeps the earth with the besom of destruction.<sup>3</sup>

The second issue of the *Star* reported the ruthless terror of God's wrath stating that "the Atlantic cities tremble at the distant destruction of this irreconcilable foe to health and happiness, but the only alternative is, Trust in God."<sup>4</sup> The article "Horrors of the Cholera Morbus" demonstrated that God was not a respecter of persons in punishing the wicked:

We have witnessed in our days the birth of a new pestilence, which, in the short space of fourteen years, has desolated the fairest portion of the globe, and swept off at least fifty millions of our race. It has mastered every variety of climate, surmounted every natural barrier, conquered every people. It has not, like the simoon blasted life, and then passed away; the cholera, like small-pox or plague, takes root in the soil which it has once possessed. The circumstances under which the individual is attacked are no less appalling than the history of the progress and mortality of the disease. In one man says an eye witness, the prostration of strength was so great that he could hardly move a limb, through he had been but fifteen minuits before in perfect health, and actively employed in his business of a gardener. A Lascar in the service of an officer was seized in the act of picking up his rice, previous to going out to cut grass close to his master's feet, and being unable to call for assistance, he was observed by an other person at a distance from him, picking up small stones and pitching them towards him, for the purpose of attracting his notice. This man died in an hour. It is no wonder that the approach of such a pestilence has struck the deepest terror into ever community.<sup>5</sup>

Phelps was undoubtedly unaware that cholera had already reached North America. Even before ice was cleared from the St. Lawrence River in the spring of 1832, immigrant-laden ships arrived at Gross Isle, the seaport for Quebec and Montreal. Within three months after the 1 May opening for navigation, the St. Lawrence River brought nearly 45,000 persons to Gross Isle and Quebec. The first known cholera victim arrived in Canada in June, but there were undoubtedly many undetected cases before then.<sup>6</sup>

By mid-June cholera appeared at Plattsburg, New York and at nearly every town on the waterway from the St. Lawrence to Albany, New York. The disease quickly spread along the waterways to New York City—though

it may have been there sooner because of incoming ocean shipping—and traveled westward on the Erie Canal to Buffalo.

Meanwhile, war broke out with the Indians. Warring tribes met troops from the east who had moved through New York City and Albany and were loaded on boats at Buffalo. After much sickness and death among its passengers, the transport *Henry Clay* made an emergency stop at Cleveland. Six of her crew had cholera and one of them died.<sup>7</sup> The sick were left behind to unknowingly infect Cleveland while the boat returned to Buffalo for a thorough cleaning. From Cleveland cholera followed the waterways and portages across Ohio to Cincinnati and then traveled up and down the Ohio River. Another troop transport docked at Chicago with sick and dying soldiers on board. After what was thought to be an adequate quarantine period, the troops left for Fort Armstrong on Rock Island in the Mississippi River. On 26 August, without warning, the scourge violently broke out at the fort. While escorting captured warrior chiefs to St. Louis, nine Fort Armstrong guards died of cholera.<sup>8</sup>

The front page of the *August Star* featured a brief article announcing cholera's forays into North America:

This desolating sickness is spreading over the United States. The account of its ravages, in many places, we cannot give: The whole number of cases in New York, to July 31, is—3731. Deaths—1520.

No man can stop the work of the Lord, for God rules the pestilence, and the pestilence rules man. Oceans, sentinels, and forts, may hinder man, or money may bribe, but when the pestilence rides on the wings of the wind, the ocean is not barrier; the sentinel has no power; the fort is no obstacle, and money has no value; the destroying angel goes, waving the banner of death over all; and who shall escape his pointed arrow? Not he that could brave death at the cannon's mouth, but shrink at the sound of the cholera; not he that worshipped his god in some stately chapel, every sabbath till the cholera comes, and then flees for his life; no; none but him that trusts in God, shall be able to stand when a thousand shall fall at his side, and ten thousand at his right hand, by the noisome pestilence.<sup>9</sup>

The front page of the next issue continued the same theme:

Not since the flood, if we think right, has the Lord sent the same pestilence, or destruction, over the whole earth at once: But the Cholera, which has swept its thousands in Asia, Africa, Europe and America, gives a solemn token to a wondering world, that it will do so. Let the reader remember that all flesh is grass, but, that amidst all the judgments of the Lord, the righteous have never been forsaken. The spread of the Cholera, may be likened unto the ripple or wave, formed by casting a stone into a pond of water: ring follows ring till they meet the shore: It is said to be in nearly all the eastern cities. Well has Iah said, When the overflowing scourge shall pass through, then ye shall be trodden down by it.—From the time that it goeth forth it shall take you: for morning by morning shall it pass over, by day and by night: it shall be a vexation only to understand the report.<sup>10</sup>

Latter-day Saints subscribed to the popular belief that plagues, especially cholera, were a consequence of sin. Phelps quoted the *Baltimore Gazette*: "The prevalence of plague . . . has always been marked by licentiousness and depravity." Men had infringed upon the laws of God, and cholera was an inevitable and inescapable judgment.<sup>11</sup> Even the governor of New York proclaimed that "an infinitely wise and just God has seen fit to employ pestilence as one means of scourging the human race for their sins, and it seems an appropriate one for the sins of uncleanness and intemperance. . . ."<sup>12</sup> The Lord even punished those who refused baptism. Brother Algernon Sidney Gilbert, keeper of the Lord's store in Independence, received word that his brother died of cholera in St. Louis. He had refused to join the Church. Whenever a God-fearing stalwart died, it caused consternation among the faithful, a consternation invariably allayed by reports that this usually praiseworthy man either harbored some secret vice or had indulged in some unwonted excess. To die of cholera was to die in suspicious circumstances.

Besides demonstrating the power of the Lord and the futility of earthly values, cholera was widely held to have another function—to promote the cause of righteousness by sweeping away the "obdurate and incorrigible" and "to drain off the filth and scum which contaminate and defile human society."<sup>13</sup> The Latter-day Saints fervently agreed. This was truly a "sign of the times" heralding the last days.

Cholera was terrifyingly unpredictable. It ravaged some towns in a progressive sweep yet entirely skipped or inflicted only a few in others. Health authorities tried to quarantine cholera cases but the vagaries of its epidemic pattern eluded attempts to arrest its spread. Apparently no one thought to boil water to kill the disease. Instead, doctors theorized that cholera was spread by the *miasmas* of bad air and prescribed higher altitudes with plenty of cross breezes. But cholera struck there too.

The cause of Asiatic Cholera was totally unknown. Nor was it known that cholera was caused by accidental ingestion of bacteria spread by hands contaminated by feces, diarrheal "rice water," vomitus, or by contamination of drinking water. The bacteria itself is surprisingly benign, requiring massive ingestion to cause illness. Some individuals do not get the disease because of high stomach acid concentration which kills the bacteria. In the first pandemic the vast majority of the victims of the disease did not even realize they had it; most had only mild diarrhea. They were the unknowing carriers who infected others and contaminated water supplies. The diagnosed cholera victims were but a small fraction of the number who actually had cholera.

Since the cause was not known, doctors knew no effective treatment for cholera. Many of the doctors of the heroic school of practice adapted the apparently successful treatment of Dr. Benjamin Rush for yellow fever—after all, both diseases were caused by *miasmas*. The treatment called for cleaning out the body by doses of calomel (mercurous chloride). A tablespoon dose was administered each hour until the patient got well or died. Also, the pressures within the body were reduced by bleeding the patient

until he fainted. Needless to say, the mortality rate for cholera patients treated in this manner was extremely high.

The advocates of botanic medicine treated their cholera patients with a dose of lobelia and bayberry to induce vomiting. This was followed by an enema to clean out the bowels, and then the patient was alternately steamed and chilled. If there was no noticeable improvement within a day, a new round of the same treatment was given. We now know that cholera kills because the severe dehydration caused by diarrhea upsets the fluid balance of the body. The botanic treatment tended to stem this dehydration and to replace some lost fluid. These patients were more likely to survive cholera and treatment. But neither method of treatment was very satisfactory. Both merely allowed the disease to run its course.

The Mormon settlements near Kirtland seem to have been relatively free from cholera during the 1832 pandemic despite their proximity to the cholera-infested pesthole of Cleveland.<sup>14</sup> Latter-day Saints in other parts of the world were not immune to the disease, but as a people, the Mormons seemed to be protected by God's hand in being spared much of the affliction.

### ZION'S CAMP

The expulsion of approximately 1,200 Mormon residents from Jackson County, Missouri prompted Joseph Smith to assemble as many male members of the Church as possible to march to Zion "for the purpose of carrying some supplies to the afflicted and persecuted Saints in Missouri, and to reinforce and strengthen them; and, if possible, to influence the Governor of the State to call out sufficient additional force to cooperate in restoring them to their rights."<sup>15</sup> In May 1833 Zion's Camp moved west to Missouri in two contingents, one from Ohio led by Joseph Smith and the other from Michigan led by his brother, Hyrum. By early June both groups arrived at the farm of James Allred on the Salt River in eastern Missouri. The Ohio contingent had earlier crossed the Mississippi River and camped about a mile from the town of Louisiana in a beautiful oak grove on the banks of the river. They undoubtedly drank the water from the river not knowing it was polluted with choleraic bacteria.

The Michigan contingent had crossed the Mississippi at Quincy, Illinois and marched southward through Palmyra, Missouri, a town of 700 to 1,000 people before cholera struck earlier that year. More than a tenth of the population had died of cholera within two weeks. In accounting for the severe attack of cholera in Palmyra, it was explained that "rain followed by hot weather at a time when there was much new plowed soil gave rise to the pestiferous *miasmata* which resulted in congestive fever and cholera."<sup>16</sup> Cholera was undoubtedly still present in Palmyra when the Mormons passed through.

The reunited expedition of 205 men, 10 women, and several children reached Richmond, Missouri on 19 June. They stopped for breakfast on a hill near a farm house. The farm's owner furnished the camp with a large quantity of milk, another good carrier of choleraic bacteria. This was the camp's third exposure to cholera. That night Joseph Hancock was stricken with

cholera. Three days later Ezra Thayer and Thomas Hayes were also stricken.

Before crossing the Mississippi, Joseph Smith warned the camp about incurring the Lord's wrath:

I got up on a wagon wheel, called the people together, and said that I would deliver a prophecy. After giving the brethren much good advice, exhorting them to faithfulness and humility, I said the Lord had revealed to me that a scourge would come upon the camp in consequence of the fractious and unruly spirits that appeared among them, and they should die like sheep with the rot; still, if they would repent and humble themselves before the Lord, the scourge, in great measure, might be turned away; but, as the Lord lives, the members of this camp will suffer for giving way to their unruly temper.<sup>17</sup>

On the night of 24 June cholera "was manifested in its most virulent form." "Our ears were saluted with cries and moanings, and lamentations on every hand; even those on guard fell to the earth with their guns in their hands, so sudden and powerful was the attack of this terrible disease." Elder John S. Carter was the first man to step forward to rebuke the disease, but upon doing so was instantly seized by the disease and became the first victim in the camp.<sup>18</sup>

Finding himself powerless to stay the course of the disease, Joseph Smith turned to the theme cited so frequently by Phelps. The prophet recorded in his history,

At the commencement, I attempted to lay on hands for their recovery, but I quickly learned by painful experience, that when the great Jehovah decrees destruction upon any people, and makes known his determination, man must not attempt to stay his hand. The moment I attempted to rebuke the disease I was attacked, and had I not desisted in my attempt to save the life of a brother, I would have sacrificed my own. The disease seized upon me like the talons of a hawk, and I said to the brethren: 'If my work were done, you would have to put me in the ground without a coffin.'<sup>19</sup>

Since neither coffins nor lumber to make them could be obtained, the bodies of the dead were rolled in blankets and taken to the banks of a small stream that emptied into Rush Creek. The dead were buried at night in an attempt to keep secret the number of their losses and the fact that cholera was in their camp. By burying the bodies in the creek bank they unknowingly insured the contamination of the creek.

On 25 June the camp separated into small bands and dispersed among the local Church members, spreading the disease among the members. The news of the Zion's Camp outbreak of cholera spread despite attempts to suppress it. Joseph Smith recorded an incident of a woman refusing to give him a drink of water because of her fear of acquiring cholera. But the woman and three others in the family died of cholera within a week.<sup>20</sup>

As the plague spread among the Mormons, new explanations were apparently felt necessary. Rather than plaguing only the wicked and unbaptized, cholera now struck Saints who were negligent in their Church respon-

sibilities. Joseph Smith had called Algernon Sidney Gilbert to preach the gospel, a task Gilbert greatly feared. Brother Gilbert allegedly had said he "would rather die than go forth to preach the Gospel to the Gentiles." He was granted his wish; he joined his brother shortly afterward as a victim of cholera.

In all, sixty-eight of Zion's Camp were stricken with cholera and thirteen died, including the prophet's cousin, Jesse J. Smith, and one woman, Betsy Parrish. Of the 205 men of the camp, 33% had recognizable cholera and 19% of those who had cholera died. Overall, Zion's Camp's death rate of just over 6% was low compared to mortality rates in other groups such as the residents of Palmyra, Missouri with a more than 10% mortality rate.<sup>21</sup>

### LATER PANDEMICS

The affliction of Zion's Camp came near the end of the 1832 cholera pandemic. By 1834 only isolated cases cropped up, but fifteen years later another pandemic crept up the Mississippi from New Orleans. In December 1848 emigrants from Germany, where cholera was raging, arrived in New Orleans. Within one month St. Louis suffered its first casualty. Of the 100 or more cholera victims in St. Louis in January, the majority were landed from river steamers from downstream.<sup>22</sup> By April 126 deaths were reported in St. Louis, including nine Mormons from Europe who were headed west on a river steamer.<sup>23</sup> Religionists were by now convinced that cholera was not necessarily a consequence of sin; the disease had demonstrated itself no respecter of persons. True, it was more prevalent among the lower socioeconomic class but by no means exclusively so.

By May St. Louis was in panic. On 9 June, 26 died; 37 died on the following day; and 402 deaths occurred in the week ending 17 June. The next week 636 died and 739 the following week; all this in a city of 63,471. At such a rate cholera would have killed every person in St. Louis within a few months, and this was a key city on the Mormon immigration route. By August the Mormon paper, the *Frontier Guardian* (Kanesville, Iowa), reported the welcomed decline in the St. Louis cholera death toll.

The *Guardian* recalled the attitude of the 1832 pandemic but with a subtle change:

Strange indeed is the course of Providence; yet it is all right. Not a sparrow falls to the ground without His notice. His chastening rod spreads terror and consternation wherever it falls; yet it is applied in mercy to the victims that fall under its strokes. The glorious end must be obtained though the means employed are sometimes severe.<sup>24</sup>

The *Guardian* of 1849 made no mention of cases in Kanesville; instead, it exulted, "We have great reason to be thankful that we have escaped here as well as we have."<sup>25</sup> However, many immigrating Saints died enroute up the Mississippi and Missouri Rivers to Kanesville (Council Bluffs) and in nearby communities. Still more died enroute across the plains.



In October 1849 the new apostle, Charles C. Rich, was sent to California with instructions to prepare an alternate route for immigrants via western California. In 1851 he purchased San Bernardino Ranch to provide a western base for the new route. A General Epistle of the Presidency announced this route that would "save three thousand miles of inland migration through a most sickly climate and country."<sup>26</sup> Shortly afterward, cholera appeared in the California port cities of San Francisco, San Pedro, and San Diego—cities on Apostle Rich's new route. The new route idea was abandoned.

Meanwhile the *Guardian* of 21 August 1850 commented:

There have been several cases of cholera in our town this season, but not enough to create the alarm which at present exists. There have been but twelve deaths since the commencement of the season.<sup>27</sup>

The article also condemned the "practice that is prevalent among the female portion of our community of going from one house to another mourning over the sick and diseased." The paper counseled, "If you feel like mourning, wait till the season is more healthy, and no cholera lurking in our midst." The angels of death did not need to be overburdened by unnecessary exposure of the good sisters.

In America the cholera epidemic began to subside but never completely ceased before a new pandemic struck in 1853 and 1854. In 1853 some 800 to 850 persons died in St. Louis, and in 1854 the city had the highest cholera death toll of any American city with 3,547 deaths.<sup>28</sup> All of central Missouri along the Mississippi and Missouri Rivers was hard hit by the pandemic. A Scandinavian contingent of immigrating Mormons was especially hard hit, losing 150 out of a company of 700. Cholera was prevalent in all companies of immigrating Mormons who came up the Mississippi River and crossed the plains.<sup>29</sup>

On 2 August 1854 Brigham Young wrote to Elder Franklin D. Richards, who was in England supervising the shipping of emigrants to America. President Young ordered Richards to discontinue shipping the Saints via New Orleans and to instead ship them to Philadelphia, Boston, or New York. Those who had to sail to New Orleans were instructed to do so in time that they might get off the rivers before warm weather and the cholera season set in. The change of route seemed to reduce the number of cases of cholera among the immigrants and cholera ceased to be a major affliction among the Mormons.<sup>30</sup> The *Deseret News* never published any reports about cholera.

In 1853 an English doctor, John Snow, delivered an address in London on epidemic diseases, including cholera, and their mode of communication, but the address's publication failed to gain much public attention. Nor had his 1849 pamphlet on cholera gained much attention, but his expanded version of *On the Mode of Communicating of Cholera* published in 1855 caught the public's attention. He proved that most cases of cholera were spread by contaminated water or physical contact with victims or their soiled belongings. Despite increased understanding about cholera, two more pandemics

struck America in 1863 during the Civil War and in 1873. They had relatively little impact upon the Church.

It was in 1883 at the beginning of yet another pandemic in Europe and Asia that Robert Koch, a German bacteriologist, discovered the comma bacillus which causes cholera. The discovery was publicly announced the next year and the concept of the supernatural cause of cholera was laid to rest. The first great pestilence of the last days could now be brought under control. Cholera is still endemic in parts of Asia and the Far East but its spread is largely controlled. New varieties, however, have been found within the last two decades, leaving the possibility that it may again become a latter-day pestilence.

## NOTES

<sup>1</sup>J. S. Chambers, *The Conquest of Cholera; America's Greatest Scourge* (New York: Macmillan, 1938), pp. 18-19.

<sup>2</sup>See Psalm 78:50; Luke 21:11; *D&C* 43:24-26.

<sup>3</sup>"The Cholera Morbus," *Evening and Morning Star*, June 1832. Hereafter *Star*.

<sup>4</sup>"Cholera Morbus," *Star*, July 1832.

<sup>5</sup>"Horrors of the Cholera Morbus," *Star*, July 1832.

<sup>6</sup>Chambers, *Conquest of Cholera*, pp. 27-29.

<sup>7</sup>*Ibid.*, pp. 86-89.

<sup>8</sup>*Ibid.*, p. 98.

<sup>9</sup>"The Cholera," *Star*, August 1832.

<sup>10</sup>"The Cholera," *Star*, September 1832.

<sup>11</sup>Charles E. Rosenberg, *The Cholera Years; The United States in 1832, 1849, and 1866* (Chicago: University of Chicago Press, 1962), p. 40.

<sup>12</sup>*Ibid.*, p. 41.

<sup>13</sup>*Ibid.*, p. 43.

<sup>14</sup>A biography of Frederick G. Williams, the most prominent botanic physician in Kirtland and, after January 1833, a counselor to Joseph Smith, states that he "successfully treated several epidemics of cholera." The biographer, Williams's second great grandson, does not specify whether the treatment was during the 1832 pandemic, in Kirtland, with Zion's Camp, or just where. See Frederick G. Williams, "Frederick Granger Williams of the First Presidency of the Church," *Brigham Young University Studies* 12 (1971-1972):243-61.

<sup>15</sup>Parley P. Pratt, *Autobiography of Parley P. Pratt* (Salt Lake City: Deseret Book, 1968), p. 114.

<sup>16</sup>Chambers, *Conquest of Cholera*, p. 136.

<sup>17</sup>*History of the Church of Jesus Christ of Latter-day Saints: Period I, History of Joseph Smith, the Prophet*, 2d ed., rev. (Salt Lake City: Deseret News Press, 1948)2:80. Hereafter *DHC*.

<sup>18</sup>Warren A. Jennings, "The Army of Israel Marches Into Missouri," *Missouri Historical Quarterly* 62, no. 2 (January 1968): 133. Hereafter *MHQ*.

<sup>19</sup>*DHC* 2: 114.

<sup>20</sup>*DHC* 2: 115.

<sup>21</sup>Belatedly, camp members found that by immersing cholera victims in cold water, the purging, vomiting, and cramping were alleviated. The sick were also treated with whiskey thickened with flour. See Heber C. Kimball, "Journal of Heber C. Kimball," *Times and Seasons*, 15 March 1845.

<sup>22</sup>James T. Barrett, "Cholera in Missouri," *MHQ* 55, no. 4 (July 1961): 346–47.

<sup>23</sup>*Ibid.*; Chambers, *Conquest of Cholera*, p. 235.

<sup>24</sup>"Cholera," *Frontier Guardian*, 25 July 1849. Hereafter *Guardian*.

<sup>25</sup>*Ibid.*

<sup>26</sup>B. H. Roberts, *A Comprehensive History of the Church of Jesus Christ of Latter-day Saints, Century I* (Salt Lake City: Deseret News Press, 1930): 385. Hereafter *CHC*.

<sup>27</sup>"Cholera," *Guardian*, 21 August 1850.

<sup>28</sup>Barrett, "Cholera in Missouri," pp. 348–49.

<sup>29</sup>Roberts, *CHC* 4: 79.

<sup>30</sup>*Ibid.*, pp. 79–80.

# *Medicine and the Mormons: A Historical Perspective*

ROBERT T. DIVETT

AT THE TIME OF THE AMERICAN REVOLUTION, most medical care in America was provided either by self-taught practitioners or by those who had apprenticed under other doctors. A few doctors were immigrants from Great Britain or native sons who had trained in Great Britain, usually at the University of Edinburgh. One of these, Benjamin Rush, later a signer of the Declaration of Independence, had returned from study abroad to join the faculty of America's first medical school, later the University of Pennsylvania.<sup>1</sup> Rush, his associates in Philadelphia and his fellows at what is now Columbia University, produced the first academically trained doctors in America. The training in these schools improved the entire practice of medicine in America.

Theories of medical practice in Rush's time were those propounded by Galen in ancient Rome. Maintaining the four humours—blood, phlegm, yellow bile and black bile—in proper balance was considered the key to health. There was little concept of differential diagnosis of specific diseases, and most diseases were treated alike.

In 1793 Philadelphia was struck by a decimating Yellow Fever epidemic. When moderate treatment failed, Rush massively increased his two main procedures: Blood-letting "to relieve the pressures" in the body and reduce fevers, and calomel to purge the body of poisons.<sup>2</sup> Patients were often "bled to faintness," losing as much as 1.5 liters (almost 50 ounces).<sup>3</sup> If they did not improve, they were bled again. The conspicuous salivation accompanying the recommended (toxic) dose of calomel inspired Rush to administer 80 grains or more a day.<sup>4</sup>

When some of Rush's critically ill patients recovered despite his treatments, Rush hailed his own success and wrote a book about it. His approach became so popular with the medical profession that his concepts dominated medical care in America for nearly 100 years. Many physicians were equally heroic with other treatments. If one dose was good, they reasoned, a dozen doses must be better.

Joseph Smith's family lived during the early period of "heroic" medicine, but they happened to have settled in a section of New England (Vermont and New Hampshire) where some aspects of heroic medicine were beginning to be challenged. From 1811 to 1813 they lived near Dartmouth College, where, in 1797, Dr. Nathan Smith had established the fourth American medical school. (He was a graduate of the third—Harvard.) Although another dominant personality in early medicine, he was not an advocate of heroic medicine. Though not averse to blood-letting and calomel, he used them sparingly, relying upon nature to help in healing. Neither were his students strong advocates of heroic medicine.

Dr. Smith had just agreed to leave Dartmouth for the newly organized Yale Medical School when an epidemic of typhoid fever, common in early America and still undifferentiated from Typhus, struck the Connecticut River Valley nearby.<sup>5</sup> He stayed to assist the stricken and so was still in the vicinity when the Smith family contracted the disease. Sophronia, Hyrum, Alvin and Joseph were ill, but Joseph's case was complicated by osteomyelitis, a common complaint in those days.<sup>6</sup> Dr. Nathan Smith and two other doctors from Dartmouth were called in, and it was during this period that Dr. Smith saved Joseph's leg by an operation which was not frequently used until the introduction of anesthesia many years later.

When the Smith family moved to Palmyra in 1816, heroic medicine was still in vogue, primarily through the teachings of America's second medical school, Columbia. Particularly influential was Dr. Samuel Latham Mitchill, who had founded America's first medical journal, the *Medical Repository*, and was widely known by both laymen and professionals. The professionals knew him for his journal, which generally supported heroic medicine; the laymen knew him as a colorful politician. When the Indians ceded western New York, he was on the commission that negotiated the settlement. A long term congressman, he was later a senator, representing New York in Washington. When the Erie Canal opened a few years after the Smiths arrived in Palmyra, Dr. Mitchill was the guest of Governor DeWitt Clinton on the ceremonial first trip through the canal.<sup>7</sup>

Lucy Mack Smith wrote that a Dr. McIntyre normally served as the Smith family physician in Palmyra-Manchester, but Dr. McIntyre was not in the vicinity on 15 November 1823<sup>8</sup> when at 10 o'clock in the morning, Alvin Smith, the eldest of the Smith children, became sick with bilious colic.<sup>9</sup> When Joseph Smith, Sr. could not find Dr. McIntyre, a Dr. Greenwood was brought to care for Alvin. Over his own protests, Alvin was "immediately administered . . . a heavy dose of calomel." This calomel "lodged in his stomach, and all the medicine freely administered by four very skillful physicians could not remove it." Three days later Dr. McIntyre returned, and with him four other eminent physicians, but they could not save Alvin. On 19 November 1823 Alvin Smith succumbed, apparently to the ravages of heroic medicine, and an autopsy revealed the massive dose of calomel lodged in his intestines with gangrene around it. Alvin's body, interred in Palmyra, lay undisturbed for nearly a year until it was disinterred (and reburied) to silence rumors that he had been disinterred and dissected by medical students.

Patients who survived the massive mercury poisoning of the heroic doctors often carried such permanent after-effects as loss of teeth, hair or vision and weakness of bones.<sup>10</sup> These facts were not missed by the lay public, and about the time of Alvin Smith's death they began to rebel.<sup>11</sup> In 1825, for example, the *Richmond* (Virginia) *Inquirer* questioned the "Samson of the *Materia Medica*."

How'er their patients do complain  
Of head, or heart, or nerve, or vein,  
Of fever, thirst, or temper fell,  
The Medicine still, is *Calomel*.  
Since *Calomel's* become their boast  
How many patients have they lost,  
How many thousands they make ill,  
Of poison, with their *Calomel*.<sup>12</sup>

### THOMSONIAN MEDICINE

In 1769 Samuel Thomson was born in Alstead, New Hampshire. He grew up in the woods country of New Hampshire and early in life became interested in herbs, gaining information from his own experiments, old women and herb doctors.<sup>13</sup> Gradually, after successfully treating his family and neighbors—and believing himself inspired of God—he became known as a doctor. He built up a large practice in New Hampshire, using as his major medication a wild plant—lobelia—which caused wrenching and vomiting.

Thomson gradually formulated his own theory of disease which, despite his claims to originality, was simply a modification of Galen's (and Rush's) humoral pathology. Thomson, however, rejected blood-letting, choosing herbs instead of calomel for purging.<sup>14</sup> He also advocated, as had a number of other physicians, dietary moderation. He strongly condemned the use of calomel. He also advocated, as did a number of orthodox physicians, dietary moderation, and condemned strongly the use of alcohol, coffee, tea and tobacco.<sup>15</sup> In 1809 he applied for and received a patent on his "system." The application, four years in process, was finally awarded in 1813. The first patent proved to be defective, but he received a second patent in January 1823 and a third in 1835.<sup>16</sup>

In the winter of 1819, Thomson chose an agent, a Mr. Elias Smith, to promote his system of medicine. He had already published a small book describing his practice and was selling the book and rights to his patents. Under Smith a major campaign was begun. In 1822 Thomson wrote an autobiography: *Samuel Thomson: Narrative of His Life and Medical Discoveries*.

Shortly after 19 December 1825, Thomson, armed with a letter of introduction from Dr. Benjamin Waterhouse, a Harvard professor famous for his role in bringing smallpox vaccination to America, made a pilgrimage to Dr. Samuel L. Mitchill of New York. He hoped to gain Mitchill's support for his medical system—much as did Martin Harris two years later on another subject. Although Thomson claimed that he had received Dr. Mitchill's support, there is no written evidence of support.

Nonetheless, Thomson's campaign went forward, capitalizing on the growing rebellion against heroic medicine. He sold thousands of his patent use rights for \$20.00 each, and with them a book, *Thomson's New Guide to Health; or Botanic Family Physician*, for \$2.00. The book could not be purchased without previous purchase of the right, or license, to practice his medicine.

Thomsonianism was very successful in Ohio where one agent sold five hundred rights to practice in eighteen months, and another agent, selling from Columbus, sold 4,000 rights in Ohio and neighboring states in only three and one-half years.<sup>17</sup> By December 1833, there were 41 agents selling patent rights in Ohio alone.<sup>18</sup> The great cholera pandemic of 1832, which reached Ohio by July, had accelerated the growth of Thomsonianism because Thomsonian practitioners appeared more successful in treating the disease. More than half the populace had apparently become advocates of Thomsonianism by 1835.

It is impossible to determine how many Mormons of the 1830s were Thomsonian practitioners, but undoubtedly there were many.

#### INFLUENTIAL MORMON DOCTORS

Some time after 1815, probably in 1821 when Thomson's son Samuel made his first visit to Ohio to sell patent rights and to promote Thomsonianism,<sup>19</sup> Frederick G. Williams purchased Thomson's book and a patent right. Williams, who had worked as a pilot on Lake Erie and as a school teacher and farmer, abandoned piloting and teaching, assumed the title "Doctor," and began to practice Thomsonian medicine. He moved to Kirtland, purchased a large farm, developed an extensive medical practice, and was a man of considerable influence by 1830 when, at forty-four, he joined the Mormons. Converted by Oliver Cowdery and Parley P. Pratt, he accepted a three-week call to accompany them on their mission to the Lamanites. The three weeks turned into ten months. During much of this time Joseph Smith and his family resided in Williams' home in Kirtland.<sup>20</sup> The two finally met in August 1831 in western Missouri where Williams covenanted that he would be willing to consecrate his all to the service of the Lord. Williams was soon functioning as Second Counselor to Joseph.

Dr. Williams remained a close associate of Joseph Smith until the summer of 1837 when, during the Kirtland troubles, they quarreled. Although they were reconciled soon after, at a conference in Far West, Missouri, on 7 November 1837, Williams was replaced in the First Presidency by Hyrum Smith. Williams remained in Far West after the conference while the new First Presidency returned to Kirtland. When Church members fled from Missouri to Illinois Dr. Williams proceeded to Quincy, Illinois, where in March 1839 he found he had been excommunicated in-absentia by a church court. A year later, his membership was restored, but he remained in Quincy until his death in October 1842. His friendship with Joseph Smith continued, the two visiting each other regularly, until he died. He undoubtedly influenced Joseph to support botanic medicine, perhaps more so than any other person.

In December 1836 Brigham Young baptized his cousin, Willard Richards,

another influential Thomsonian physician. In addition to buying a patent right, Willard claimed to have taken a six-week course under Thomson himself. He had been in practice near Boston when a copy of the Book of Mormon came into his possession and he left his practice to go to Kirtland to learn more about the Church. Within six months, by June 1837 Willard was away to England as a missionary for the Church. His influence was to be felt more in later years.

In Far West another Thomsonian physician played a prominent role in the Latter-day Saint community. Dr. Sampson Avard formed the secret Danite society. Later Avard, before the Missouri courts, accused Joseph Smith and Sidney Rigdon of being responsible for the wrongs performed by the secret society. He eventually was excommunicated.

While Joseph Smith was imprisoned in Liberty Jail he entered into a correspondence with a Dr. Isaac Galland, another botanic physician. Galland was primarily a land speculator, and at a time when the Mormons were a scattered group of refugees, he offered to sell thousands of acres of land in Lee County, Iowa, and Hancock County, Illinois, for a small down payment and reasonable terms.<sup>21</sup> Joseph apparently was unaware of Galland's unsavory past as frontier adventurer, promoter, and confidence man, or that he once had been indicted for perjury.

Within a few days of Smith's escape from Missouri he visited Galland at Commerce, the speculator's paper town in Hancock County, Illinois. By 1 May 1839 land purchases were underway to acquire what would soon be called Nauvoo, and large tracts across the Mississippi in Lee County, Iowa. Smith considered Galland "one of our benefactors."<sup>22</sup> In July 1839 Dr. Galland furthered his ties with the Church by being baptized.<sup>23</sup> The same day he was ordained an elder by Joseph Smith. For the next eighteen months Galland served as land agent for the Church, wheeling and dealing and gathering exchange land titles for Church members. By January 1842 he had created such a mess that Joseph Smith published notice of the revocation of Galland's agency and power of attorney.<sup>24</sup> As Galland held mortgages on much of the Mormon property the situation was an especially touchy one. He seems simply to have been dropped from official cognizance—no excommunication, no disfellowshipping, just quietly made a nonperson. Galland in turn soon withdrew his fellowship and boasted of his conviction that Smith was a fraud.<sup>25</sup>

As the Saints moved into the newly purchased area they soon succumbed to the "ague" and chills and fever. They already had been weakened by the rigorous midwinter trek out of Missouri and the ordeal of persecution in that state. Now they moved into an area where malaria was endemic.<sup>26</sup> Among the refugees were several other young botanic physicians, who went from bed to bed often prescribing Sappington's pills (which contained quinine).<sup>27</sup> The epidemic, however, was beyond their capabilities and, ultimately, on 22 July 1839 Joseph Smith rose from his own sickbed to go about administering to and healing all the sick in the community. The spiritual healings, in most cases, were temporary, but heal they did. It was not the first time that the



Saints had been healed by anointing and blessing, but there had been nothing on a similar scale.

Enter yet another influential doctor, but this time more "orthodox" than Thomsonian. Dr. John Cook Bennett from Washington County, Ohio, studied medicine under the preceptorship of his uncle by marriage, Dr. Samuel Prescott Hildreth of Marietta, Ohio, then the leading physician of southwestern Ohio. Licensed to practice medicine by the Medical Society of Ohio on 1 November 1825, Bennett later attended one session of medical lectures at McGill University in 1830–31. He practiced medicine in several Ohio towns, and in Wheeling (now West Virginia), until late 1832. He also had been a Methodist preacher and had become a follower of Alexander Campbell in 1830.<sup>28</sup>

In 1833 Dr. Bennett was instrumental in incorporating, at New Albany, Indiana, an institution called The Christian College, and was named its first president. This was to be a coeducational school, and has been called the first such chartered college in the United States. It soon went by one of three new names: University of New Albany (Christian College); University at New Albany, Indiana; or University of Indiana.<sup>29</sup>

Just forty days after the Indiana legislature had chartered the institution Bennett issued his first Doctor of Medicine degree. He also arranged to award himself an honorary Doctor of Medicine degree, possibly his only M.D. degree. Bennett was later appointed a professor in the Medical Department of Willoughby University of Lake Erie (Ohio), in September 1834 but no medical degrees were granted by the school while he was affiliated with it.

Subsequently Dr. Bennett was charged with peddling worthless M.D. degrees across Pennsylvania, Ohio, and Indiana, and his Indiana institution has been styled by one medical historian as America's first medical diploma mill. Bennett claimed that he "thoroughly examined all but those generally allowed to be qualified." He also at times called in other doctors to aid in the examinations. At the least it can be said that his idea of granting degrees by examination without regard to length of study was revolutionary and controversial.

In early 1839, while serving as an officer of the Invincible Dragoons, a militia company of Edwards, White and Wabash Counties in southeastern Illinois, Dr. Bennett wrote to Joseph Smith that "his bosom swelled with indignation" at the treatment the Saints were receiving at the hands of the Missourians, and he offered to muster an army to come to the Saints' aid. This aid was declined.<sup>30</sup>

By July of 1840 Bennett was Quartermaster General of the Illinois Militia, and was living at Fairfield, Wayne County. He wrote a letter to Joseph Smith and Sidney Rigdon offering to come to Nauvoo to assist the Saints, and to join them.

He arrived in Nauvoo in August or September 1840 and immediately joined in the efforts to gain a city charter, which he has been credited with successfully piloting through the legislature. When the first municipal election was held in 1841 on the day the charter officially became state law, Dr.

Bennett was elected mayor. Two months later he was sustained at General Conference as a counselor in the First Presidency of the Church.<sup>31</sup> Bennett also became Major General of the Nauvoo Legion, the militia unit created by the charter. In addition he became chancellor of the University of Nauvoo, which also was authorized by the charter.<sup>32</sup>

Also in 1841 Bennett, who earlier had deserted a wife and children in Pennsylvania, became aware of the doctrine of plural marriage, and invoked it in the seduction of several local women. As a result he was disfellowshipped and later excommunicated, and thereafter became an avid opponent of the Mormons. In 1842 he published *The History of the Saints, or an Expose of Joe Smith and Mormonism*.

During his time among the Mormons Bennett continued to practice medicine, between his duties as mayor, major general, university chancellor and counselor to the president. Under his direction the swamps along the banks of the Mississippi, both in Nauvoo and across the river in Montrose, were drained. A ditch was dug across Nauvoo to rid the lower town of its excess water. He did everything he could to eliminate the *miasmas*, or fowl air, that were believed to cause the ague, chills and fevers which plagued the city. He also organized a Board of Health. And the general health of the community improved. In 1840 Bennett had been one of the leaders in founding the first state medical society in Illinois, and unquestionably was allied with the orthodox practice on his arrival in Nauvoo. It is impossible to ascertain how "heroic" his practice was, however, and by the time he left Nauvoo he had changed his allegiance. He later joined the faculty of Alva Curtis' Botanico-Medical Institute of Ohio, a neo-Thomsonian school, and wrote for its *Botanico-Medical Recorder*.<sup>33</sup>

In August 1841 Dr. Willard Richards, who had been called as a member of the Quorum of the Twelve while on his mission to England, returned to Nauvoo. Shortly thereafter he was called to be chief of several clerks in the service of Joseph Smith, and began a close relationship that ended only with the death of the prophet in Carthage Jail, with Willard at his side. By November 1841 Joseph could write, "I have been searching all my life to find a man after my own heart whom I could trust with my business in all things, and I have found him—Dr. Willard Richards is the man."<sup>34</sup> Once again he had a trusted botanic doctor as a close associate.

Joseph Smith had at least two additional close relationships with doctors before he was killed. When Thomsonian Dr. Levi Richards, Willard's brother, returned from a mission in 1843, Joseph chose him as his personal physician, and praised him copiously thereafter. Joseph called him the best doctor he had ever known, and apparently developed a relationship very similar to that which he had with Willard. With Joseph's praise common knowledge in the community, Levi soon had one of the largest practices in Nauvoo.

The same year, Dr. John M. Bernhisel, an 1827 graduate of the orthodox University of Pennsylvania, came to Nauvoo. He may not have established his own practice there, for he became Joseph's clerk and friend, and lived in the prophet's home. In at least one case Bernhisel accepted a consulting

situation with a Thomsonian doctor. This is evidenced by Joseph's journal, which was being kept by Bernhisel at the time:

Friday, December 15th, 1843. I awoke this morning in good health, but was soon suddenly seized with a great dryness on the mouth and throat and sickness of the stomach and vomitted freely. My wife waited on me, assisted by my scribe and Dr. L. Richards, who administered to me herbs and . . . milder drinks.<sup>35</sup>

Thus, the preponderance of doctors close to the Mormon leadership in the early years were of the botanical (Thomsonian) school. With two of these Thomsons among his closest advisers, it is not surprising that Joseph Smith was an advocate of botanic medicine, and often espoused or, when ill, sought out the familiar herbal remedies.

#### THE WANE OF THOMSONIAN AND HEROIC MEDICINE

Just as Joseph Smith had, almost from the beginning of the Church, difficulties in controlling unauthorized doctrinal changes, so did Samuel Thomson have problems with unauthorized variations in his medical system. Throughout his life, Thomson was adamantly opposed to the establishment of schools to teach his medicine. He wanted to keep it simple, to have it a system where householders could be their own medical practitioners. In other words he wanted a lay medical practitioner system—not "professional" medical practitioners—much as Joseph Smith advocated a lay priesthood. Very early, however, his followers insisted on professionalizing their practice, and this led to schisms and the establishment of schools to teach botanic medicine.

When Samuel Thomson died in October 1843, his sons tried to hold together his few remaining loyal supporters, but the practitioners of botanic medicine soon divided into several groups. Botanico-medical colleges sprang up throughout the Midwest and South where Thomsonianism had been strong. They did not last long, however, and by the Civil War most were defunct. A few physico-medico and reformed medical schools, descendants of Thomsonianism, existed into the 1870s, but then they, too, disappeared. Of the successors to Thomsonianism, only the eclectic schools continued into the twentieth century, with their last college, in Cincinnati, expiring in 1925.

Opposition to heroic medicine was carried on by the neo-Thomsonian groups named above, but the main attack now came from homeopathy, a medical sect similar in some ways, which was just beginning to gain a foothold in America as Thomsonianism waned. While largely a splinter of the regular profession, the homeopathic movement apparently also attracted many Thomsonsians.<sup>36</sup>

During the early years of Mormonism changes were taking place within orthodox medicine also. Beyond the economic incentive for change occasioned by an increasingly hostile public, important advances were made in studying the effectiveness of various treatments. Dr. Pierre-Charles-Alexandre Louis of Paris was just then developing the techniques of bio-

statistics that could prove or disprove the efficacy of a specific treatment. He did his first research on blood-letting as a treatment for pneumonia, and when the American translation of his works, *Researches on the Effects of Bloodletting in Some Inflammatory Diseases*, was published in 1836, heroic medicine was shaken to the core. Soon every use of blood-letting was challenged. While textbooks continued to recommend it, by the 1850s it was no longer commonly used.<sup>37</sup>

Calomel, however, still remained in vogue. It was true that a few orthodox physicians questioned its use, such as the distinguished Oliver Wendell Holmes.<sup>38</sup> One physician, in 1844, went so far as to accuse many of his fellows of killing their patients with lethal doses of calomel.<sup>39</sup> But for the majority of orthodox physicians, especially in the South and west of the Appalachian mountains, calomel continued to be the favorite drug. It had acquired the status of a therapeutic panacea.

Because of the tenaciousness with which the orthodox physician clung to this heroic practice, calomel became the symbol of orthodox medicine. Any move to ban it was viewed as a threat to the prestige and position of the entire profession.<sup>40</sup> During the Civil War a tremendous furor arose when Surgeon General Hammond, of the Union army, ordered the removal of calomel and tartar emetic from the supply table of the army.<sup>41</sup> His Medical Inspectors had found too many "occurrences of mercurial gangrene." The order whipped up a furious action on the part of organized medicine, with the American Medical Association accusing the Surgeon General of having grossly insulted the medical profession and maligning two most valuable remedies. Secretary of War Stanton resolved the debate by sacking the Surgeon General. It was to be another fifteen years before the heroic use of calomel was completely halted.

#### NOTES

<sup>1</sup>Ilza Veith, "Benjamin Rush and the Beginnings of American Medicine," *Western Journal of Medicine* 125 (July 1976): 17–27.

<sup>2</sup>Gunter B. Risse, "Calomel and the American Medical Sects During the Nineteenth Century," *Mayo Clinic Proceedings* 48 (1973): 57–64.

<sup>3</sup>Matthew J. Kluger, "The History of Bloodletting," *Natural History* 87 (November 1978): 78–83.

<sup>4</sup>Risse, "Calomel," p. 58.

<sup>5</sup>LeRoy S. Wirthlin, "Nathan Smith (1762–1828) Surgical Consultant to Joseph Smith," *BYU Studies* 17 (Spring 1977): 319–37; also "Joseph Smith's Surgeon," *Ensign* 8 (March 1978): 58–60.

<sup>6</sup>Lucy Smith, *Biographical Sketches of Joseph Smith, the Prophet, and his Progenitors for Many Generations* (Liverpool: S.W. Richards, 1853), pp. 52, 54.

<sup>7</sup>Howard A. Kelly, *A Cyclopedia of American Medical Biography*, 2 vols. (Philadelphia: Saunders, 1912) 2: 179–81.

<sup>8</sup>Lucy Smith, *Sketches*, p. 86; Russell R. Rich, "Where Were the Moroni Visits?" *BYU Studies* 10 (1969–70): 255–58.

<sup>9</sup>This may well have been a case of appendicitis, but that syndrome was not to be identified for another sixty-three years. See comments on the death of Brigham Young in Lester E. Bush,

Jr., "Brigham Young in Life and Death: A Medical Overview," *Journal of Mormon History* 5 (1978): 79–103.

<sup>10</sup>George Washington underwent many heroic medical treatments. It has been claimed that he was bled to death. He also had loss of teeth and other symptoms of mercury poisoning.

<sup>11</sup>Risse, "Calomel," p. 59.

<sup>12</sup>*Ibid.*

<sup>13</sup>James Moores Ball, "Samuel Thomson (1769–1843) and his Patented 'System' of Medicine," *Annals of Medical History* 7 (1925): 144–52; Alex Berman, "The Thomsonian Movement and its Relation to American Pharmacy and Medicine," *Bulletin of the History of Medicine* 25 (1951): 405–28, 519–38.

<sup>14</sup>Berman, "Thomsonian Movement," pp. 412–13.

<sup>15</sup>Joseph F. Kett, *The Formation of the American Medical Profession* (New Haven: Yale University Press, 1968), p. 126.

<sup>16</sup>Berman, "Thomsonian Movement," p. 415–16.

<sup>17</sup>Frederick C. Waite, "Thomsonianism in Ohio," *Ohio Archeological and Historical Quarterly* 49 (1940): 322–31, 324.

<sup>18</sup>*Ibid.*, p. 324.

<sup>19</sup>*Ibid.*

<sup>20</sup>Frederick G. Williams, "Frederick Granger Williams of the First Presidency of the Church," *BYU Studies* 12 (1971–72): 243–61.

<sup>21</sup>Robert Bruce Flanders, *Nauvoo, Kingdom on the Mississippi* (Urbana: University of Illinois Press, 1965), p. 27.

<sup>22</sup>*Ibid.*, p. 37.

<sup>23</sup>*Ibid.*, p. 132.

<sup>24</sup>*Ibid.*, p. 133.

<sup>25</sup>*Ibid.*, p. 134.

<sup>26</sup>Edwin H. Ackerknecht, "Malaria in the Upper Mississippi Valley, 1760–1900," *Bulletin of the History of Medicine*, Supplement No. 4, 1945, p. 18.

<sup>27</sup>Ivan J. Barrett, *Joseph Smith and the Restoration; a History of the LDS Church to 1846* (Provo: Brigham Young University Press, 1973), p. 439.

<sup>28</sup>Frederick C. Waite, "The First Medical Diploma Mill in the United States," *Bulletin of the History of Medicine* 20 (November 1946): 495–504.

<sup>29</sup>This institution had no connection with the University of Indiana at Bloomington.

<sup>30</sup>Flanders, *Nauvoo*, p. 93; B.H. Roberts, *A Comprehensive History of The Church of Jesus Christ of Latter-day Saints, Century 1*, 6 vols. [CHC] (Salt Lake City: Deseret News Press, 1930), 2: 49.

<sup>31</sup>CHC 2: 69.

<sup>32</sup>Earlier he had been involved in efforts to establish or charter several other educational institutions. Flanders, *Nauvoo*, p. 94–95, 101; CHC 2: 168–70.

<sup>33</sup>Waite, "Diploma Mill," p. 498.

<sup>34</sup>Barrett, *Joseph Smith*, p. 503.

<sup>35</sup>Journal of Joseph Smith, 15 December 1843, as quoted in John Heinerman, *Joseph Smith and Herbal Medicine* (Manti, Utah: Mountain Valley Publishers, 1975), p. 29.

<sup>36</sup>Kett, *American Medical Profession*, p. 139.

<sup>37</sup>Leon S. Bryan, Jr., "Blood-Letting in American Medicine, 1830–1892," *Bulletin of the History of Medicine* 38 (1964): 516–29.

<sup>38</sup>Oliver Wendell Holmes, "Currents and Counter-Currents in Medical Science," *Medical Essays, 1842–1882* (Boston: Houghton Mifflin, 1888), pp. 173–298.

<sup>39</sup>Risse, "Calomel," p. 60.

<sup>40</sup>*Ibid.*, p. 61.

<sup>41</sup>*Ibid.*; Alex Berman, "The Heroic Approach in 19th Century Therapeutics," *Bulletin of the American Society of Hospital Pharmacists* 11 (September–October 1954) p. 326.

# *The Imperfect Science. Brigham Young on Medical Doctors*

LINDA P. WILCOX

NOT LONG AFTER UTAH was linked by railroad with the rest of the country, Brigham Young expressed these views: "Doctors and their medicines I regard as a deadly bane to any community. . . . I am not very partial to doctors. . . . I can see no use for them unless it is to raise grain or go to mechanical work."<sup>1</sup> Such an offhand dismissal of what is now a prestigious profession may seem either arrogant or ignorant, but it was typical of the distrust and hostility with which he and his followers generally regarded contemporary medical practice. Yet Brigham Young's attitude toward doctors and medicine was not as negative as most of his published statements may seem to indicate. When one considers the kind of doctors and medicine he was opposed to, his actual behavior as well as his words, and the changes in his attitude over time, quite a different picture appears. He then emerges as a man of common sense, flexible enough to change his mind in the light of new developments.

There was little in medical practice, orthodox or otherwise, of the early nineteenth century to inspire confidence. Few regular doctors were university trained. Most "physicians" had either a year or two of theory and little practical experience or only an apprenticeship with a doctor. Some, of the "heroic" school, emphasized excessive bleeding, harsh "poison" medicines (calomel, lead, arsenic, and opium, for example), raising blisters with the aid of flies, and brutal surgery—techniques potentially more harmful to the patient than his ailment.<sup>2</sup>

With treatment so unpalatable and in the absence of adequate training and standards, a number of alternative medical approaches arose—

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LINDA P. WILCOX is a part-time historical researcher living in Salt Lake City. Her "Pestiferous Ironclads: The Grasshopper Problem in Pioneer Utah" appeared recently in the *Utah Historical Quarterly*.

homeopathy, hydropathy and the eclectic approach, among others. Perhaps most influential was the Thomsonian system, which emphasized treatment by herbs. Vomiting, purging, and the application of heat (inside and out) were the basic techniques. While these non-orthodox approaches were no more likely to effect cures, they were less likely to do the patient severe damage.<sup>3</sup>

Thomsonian medicine and Mormonism meshed in many ways, both geographical and philosophical<sup>4</sup> and several Thomsonian doctors rose to high positions in the Mormon church. Frederick G. Williams, counselor to Joseph Smith in the First Presidency; Levi Richards, Joseph Smith's personal physician; and Levi's brother Willard Richards, appointed an apostle in 1840 and counselor to Brigham Young in 1847, are notable examples. Brigham Young shared the views of these Mormon Thomsonians. He once said that Thomsonianism was as much better than the old system of doctoring as the gospel was better than sectarianism and as lobelia was better than calomel.<sup>5</sup>

Adding faith, prayer and priesthood administrations, Young repeated the Thomsonian recommendations—rest, mild food, purging, herbs—throughout much of his life. In 1846, he wrote to the soldiers of the Mormon Battalion: "If you are sick, live by faith, and let surgeon's medicine alone if you want to live, using only such herbs and mild food as are at your disposal."<sup>6</sup> Members of the Mormon Battalion indeed suffered from poor medical attention. Arsenic and calomel were forced upon them by Dr. George B. Sanderson, who allegedly threatened to cut the throat of anyone administering medicine without his orders, thus preventing the men from receiving alternate forms of treatment. Yet the members of the Battalion were able to respond with a measure of humor as well as anger. A song written by Levi Hancock includes these verses:

A Doctor which the Government  
Has furnished, proves a punishment!  
At his rude call of "Jim Along Joe,"  
The sick and halt, to him must go.

Both night and morn this call is heard;  
Our indignation then is stirr'd,  
And we sincerely wish in hell,  
His arsenic and calomel.<sup>7</sup>

Brigham Young no doubt learned of these unpleasant experiences from returning members of the Battalion.

The first health law passed in Utah in 1851 reflects Brigham's aversion to the "poison" medicines used by orthodox doctors. Probably drafted by Willard or Phineas Richards, both members of the Legislature, it provided stiff penalties (not less than \$1,000 and not less than one year at hard labor) to anyone giving "any deadly poison . . . under pretence of curing disease" without first explaining its nature and effects in plain English and procuring the "unequivocal approval" of the patient—a pioneer truth-in-labeling or full disclosure law.<sup>8</sup>

In a general epistle in 1852 Brigham Young offered this advice:

When you are sick, call for the Elders, who will pray for you, anointing with oil and the laying on of hands; and nurse each other with herbs, and mild food, and if you do these things, in faith, and quit taking poisons, and poisonous medicines, which God never ordained for the use of men, you shall be blessed.<sup>9</sup>

The “poisonous medicines” referred to here were probably those used by orthodox physicians—arsenic, the opiates and especially calomel. “If the people want to eat calomel,” he said, “let them do it and be damned. But don’t feed it to any of my family. If any doctor does and I know it I would kill him as quick as I would for feeding arsenic.”<sup>10</sup> He described calomel as being just as deadly a poison as arsenic but not as quick. Lobelia, in contrast, contained little or no poison. “I will give \$5000 dollars,” he said, “for the 16 part of an oz of poison that can be extracted out of all the lobelia in this valley.”<sup>11</sup> Reluctantly he conceded that in rare instances calomel might be beneficial:

But there is constitutions, and situations in life, wherein you may administer calomel to persons, and it will do them good when nothing else will. But is it good in every case? No. Not one in fifty thousand, but we will reduce that and say one to five thousand. It will produce death in five thousand where it will do good only to one person.<sup>12</sup>

It might also “cure some mean person, a person that would not be happy unless they were trying to be miserable.”<sup>13</sup>

In a long analogy comparing the saving of souls to the saving of bodies, Brigham urged the elders to “save the sick like a good physician, and not kill them by dosing down the medicine as do some of our doctors.”<sup>14</sup> Too much medicine was worse for the system than too much food.<sup>15</sup> He recommended “a simple herb drink” for sick children<sup>16</sup> and even urged the production of more honey as medicine.<sup>17</sup>

One of Brigham Young’s favorite themes in his sermons was the prevention of illness by adhering to the Word of Wisdom and following common sense rules of health. He recommended the boiling of water, a sensible and plain diet and the right combination of work and rest.<sup>18</sup> He taught that much illness among the Saints was of their own making. When illness did strike, despite efforts to avoid it, the first line of defense was faith in the healing influence of the administrations of the elders. “Instead of calling for a doctor,” he said, “you should administer to them by the laying on of hands and the anointing with oil.”<sup>19</sup>

The power of administering to the ill and exercising faith in their behalf was not limited to males. “It is the privilege of a mother,” he said, “to have faith and to administer to her child; this she can do herself, as well as sending for the Elders to have the benefit of their faith.”<sup>20</sup>

Yet Brigham Young never saw reliance on faith and administration as sufficient. As with other ventures, works must be added to faith. Brigham





often chided the members for excessive reliance on the Lord and insufficient self-reliance:

You may go to some people here, and ask what ails them, and they answer, "I don't know, but we feel a dreadful distress in the stomach and in the back; we feel all out of order, and we wish you to lay hands upon us." "Have you used any remedies?" "No. We wish the Elders to lay hands upon us, and we have faith that we shall be healed." That is very inconsistent according to my faith. If we are sick, and ask the Lord to heal us, and to do all for us that is necessary to be done, according to my understanding of the Gospel of salvation, I might as well ask the Lord to cause my wheat and corn to grow, without my plowing the ground and casting in the seed. It appears consistent to me to apply every remedy that comes within the range of my knowledge, and to ask my Father in heaven, in the name of Jesus Christ, to sanctify that application to the healing of my body.<sup>21</sup>

The available remedies, in Brigham's view, included mild foods, herbs, fasting, resting, cleansing and patience in waiting for nature to heal the

body—but not the attendance of regular doctors nor their strong medicines.

Brigham Young called the regular medicine of his day “the most imperfect of any science in existence.” Not only did the doctors grossly misunderstand and misapply medication; they did not even recognize so elementary a principle as individual variations. “Doctors make experiments,” he said, “and if they find a medicine that will have the desired effect on one person, they set it down that it is good for everybody, but it is not so, for upon the second person that medicine is administered to, seemingly with the same disease, it might produce death.”<sup>22</sup>

Surgery was perhaps necessary at times for essentially mechanical procedures, like extracting teeth or setting bones, but doctors no more understood “the system of man” than they did the heavens. “A worse set of ignoramuses do not walk the earth.”<sup>23</sup> He was not impressed with their supposed learning. In an 1861 sermon he said:

I suppose there are physicians here laughing in their sleeves and thinking what a pity it is that brother Brigham was not a studied physician. A studied fool you mean—a learned fool. When you come to the real knowledge I know more than ye all and do not brag one particle. I could put all the real knowledge they possess in nut shell and put it in my vest pocket, and then I would have to hunt for it to find it.<sup>24</sup>

Even the modicum of knowledge he was willing to concede to the doctors was, in his opinion, mishandled. They put the ability into the hands of a few and kept the rest ignorant. Useful medical knowledge should be imparted to all, he said to the Board of Health; those unwilling to share their knowledge were “corrupt.”<sup>25</sup>

He asserted that any community in which the people doctored themselves “according to nature and their own judgments” would experience less sickness and death than a similar community cared for by regularly qualified physicians—even omitting consideration of the power of faith in healing.<sup>26</sup> If the Saints were to fully cultivate the gift of healing, “every doctor might be removed from our midst.”<sup>27</sup> In 1852 the *Deseret News* had cheered when doctors gave up trying to make a living in Utah and moved on.<sup>28</sup> In 1869 *Harper’s Weekly* reported Brigham’s claim that “at Salt Lake they had no sickness till the doctors came. Then they, being too lazy to delve and hoe like others, made people ill, in order to get a living by doctoring them!”<sup>29</sup>

Brigham’s own experiences bore witness to the value of both faith and knowledgeable self-care. He experienced recovery from illness through administration on several occasions and was once saved from death by the quick-thinking action of his wife in applying mouth-to-mouth resuscitation. His own ability to reset his dislocated shoulder with the help of some brethren is a good example of self-reliance.<sup>30</sup>

This distrust of the medical profession was justified in Brigham Young’s mind not only by the low standards among regular doctors but also by what he had heard from Joseph Smith, his revered prophet. In 1843 Smith had declared:

The doctors in this region don't know much . . . and I take the liberty to say what I have a mind to about them. They won't tell you where to go to be well; they want to kill or cure you to get your money. Calomel doctors will give you calomel to cure a sliver in your big toe, and they do not stop to know whether the stomach is empty or not; and calomel on an empty stomach will kill a patient. . . .<sup>31</sup>

Joseph had good reason to feel so strongly about the effects of calomel: his brother Alvin had been treated with calomel which then lodged in his upper bowels and apparently was responsible for his death.<sup>32</sup> Joseph Smith's own recommendations for healing contained many of the same elements evident in Thomsonian medicine and in Brigham Young's approach—common sense, self-reliance and mild rather than harsh remedies. He attributed his own success in administering comfort in "thousands" of cases of sickness to the patients' unreserved confidence in him and to the fact that he "never prescribed anything that would injure the patient, if it did him no good." "People will seldom die of disease," he explained, "provided we know it seasonably, and treat it mildly, patiently and perseveringly, and do not use harsh means."<sup>33</sup>

On top of this reinforcement was a series of experiences that quite consistently showed regular physicians to be unreliable at best, enemies of the Kingdom at worst. As Brigham Young started for his mission in England in 1839, his fellow apostle Heber C. Kimball was overdosed with a tablespoon of morphine by an intoxicated doctor. Brigham nursed his unconscious then semi-comatose companion throughout the night. So profuse was Heber's perspiration that his underclothing had to be changed five times. Brigham had another reason for disliking this doctor, who expressed sympathy for the poverty and ill health of the Mormons nearby, but "did not have quite sympathy enough to buy them a chicken or give them a shilling, though he was worth some four or five hundred thousand dollars."<sup>34</sup>

In the 1850s, Garland Hurt, an unfriendly Indian agent who helped instigate the Utah War, was also a regular physician. In 1866, another regular doctor, King Robinson, contested Mormon land claims at Warm Springs and after being evicted, filed a suit against the city in federal court.<sup>35</sup> Such emotional incidents did nothing to mitigate the negative associations already established in Brigham's mind.

Despite these unpleasant associations and his outspoken verbal denunciation of regular doctors, in practice, Brigham Young was able to manifest some flexibility. His own relationships with medical people and the advice he gave them about practicing medicine varied considerably. Some doctors, even orthodox ones, seem to have enjoyed his approval and encouragement and even his friendship.

Samuel Sprague was a close companion of Brigham Young and was probably, although not certainly, a regular doctor. He served as camp physician during the trek west, and Brigham conferred with him often about the health of the camp. He was with Brigham almost constantly in his travels around the Territory except when sent on specific missions of his own. He accompanied Brigham to Fillmore in 1855 where he provided medical attention to members

of the Territorial Legislature, local citizens and the Indian chief Kanosh.<sup>36</sup> Surely his medical work was not undertaken without Brigham's approval. Sprague probably cannot be considered a full-time physician.

John Bernhisel, an orthodox doctor and firm advocate of copious bleeding, did not seem to incur Brigham's direct displeasure either. He was elected delegate from Utah to the House of Representatives several times in the 1850s—which indicates either his high standing with the church leadership or an attempt to channel his energy into more "productive" activities than medicine.<sup>37</sup>

Washington Franklin Anderson, a non- (or possibly ex-) Mormon who was perhaps the most prominent Utah physician of the nineteenth century, enjoyed Brigham Young's confidence and approval from the very first. His daughter recorded the following:

On his arrival in Salt Lake City, in 1857, my father identified his interests with this community. In a conversation with Brigham Young he made it plain to him that he was not a convert to the so-called "divine" part of Mormonism, but that he admired the law and order that prevailed under his leadership. Brigham Young responded by slapping him familiarly on the shoulder, and assured him that his rights as a citizen would be protected as long as he wished to remain in Utah and practice his profession.<sup>38</sup>

On the other hand, George W. Hickman, who had a medical degree from Oberlin College, joined the Mormon church and settled in Utah County, was counseled by Brigham Young "not to practice medicine because he [Young] wanted to teach the people faith and dependence upon God. . . . This was a stunning blow to a young man who had spent years in preparation for a profession suddenly to have his staff knocked from under him."<sup>39</sup> Although poorly suited for agricultural life, he gave up his practice, only resuming it gradually and then feeling that he was not entitled to charge for his work.

Brigham was less than encouraging when replying to an inquiry from Dr. David Adams of Fairfield, Illinois. Dr. Adams was interested in Mormonism and wished to move to Utah, bringing with him a hundred people and hoping he could earn his living practicing medicine there. Brigham replied,

As to supporting a family by medical practice, we have physicians who find considerable employment, yet it is no uncommon thing to see them at work in the canyons getting out wood, plowing, sowing, or harvesting their crops, which, I think betokens a healthy state.

In addition to this hint that men were to earn their living primarily by the "sweat of their brow" rather than by doctoring, Brigham Young went on to express his distrust of doctors in general, even implying that they may kill patients prematurely:

. . . a man may always be dying and yet be alive, yet never alive but always dying, until some friendly physician shall interpose and quietly put him away according to the most approved and scientific

mode practiced by the most learned M.D.'s. . . . As an individual, I am free to confess that I would much prefer to die a natural death to being helped out of the world by the most intelligent graduate, new or old school, that ever scientifically flourished the wand of Esculapius or any of his followers.<sup>40</sup>

Brigham's attitude toward women practicing medicine was more encouraging. Caring for the sick, especially attending at childbirth, was congruent with what he envisioned as women's role, so he set apart several women as midwives for their communities.<sup>41</sup> Elizabeth Ramsay, called to act as midwife, nurse and doctor in St. Johns, Arizona, performed autopsies as well, despite having had no medical training.<sup>42</sup>

While midwifery was acceptable, female professional physicians were not encouraged to practice full time in the early years—at least not for pay. Nette Anna Furrer, a nurse, graduated from Geneva Hospital as a physician and surgeon and studied at Leipzig and Constantinople. She joined the Church in her native Switzerland in 1854, came to Salt Lake in 1856 and married John Cardon. When she and her husband spoke to Brigham Young about their plans to move to the Weber Valley, he told her that her mission was to care for the sick and needy without payment, "and great would be her blessings." Like George Hickman, she followed the counsel of the prophet and spent her life in giving medical service to others.<sup>43</sup>

Within a few years women were receiving stronger encouragement. In January 1868 in a general epistle to the church, Brigham suggested that women be trained in anatomy, surgery, chemistry, physiology, midwifery, the preservation of health and the properties of medicinal plants.<sup>44</sup> "The time has come for women to come forth as doctors in these valleys of the mountains," he said.<sup>45</sup> This was an accurate description of what was taking place. Eliza R. Snow insisted that for women to be on a par with men in the medical profession they must have the same training, the same degrees. Citing the prophet, she said that "President Young is requiring the sisters to get students of Medicine," and urged those who could undertake formal training to do so.<sup>46</sup>

The motivation behind this movement came not so much from a desire to promote equal opportunity for women as from a desire to head off the influence of Gentile doctors and especially to keep obstetrical care as a female province. Eliza R. Snow pushed for expanded training of midwives "so that we can have our own practitioners, instead of having gentlemen practitioners."<sup>47</sup> She also stated,

We want sister physicians that can officiate in any capacity that the gentlemen are called upon to officiate and unless they educate themselves the gentlemen that are flocking in our midst will do it.<sup>48</sup>

Mormon women, then, were doubly qualified by gender and by religion for this work. Romania Bunnell Pratt Penrose and Ellis Reynolds Shipp were two of the first women called by Brigham Young to travel east for medical training.<sup>49</sup>

As late as 1869, President Young was still far from enthusiastic about the use of doctors by the members of the Church, but in the following advice he recognizes that some of the Saints were indeed consulting physicians:

Learn to take proper care of your children. If any of them are sick the cry now, instead of "Go and fetch the Elders to lay hands on my child!" is, "Run for a doctor." Why do you not live so as to rebuke disease? It is your privilege to do so without sending for the Elders. You should go to work to study and see what you can do for the recovery of your children.<sup>50</sup>

This was in line with earlier statements emphasizing self-reliance. Brigham said that every good Church member who is magnifying his calling and keeping the commandments should be his or her own physician, should "know their own systems, understand the diseases of their country, understand medicine and they ought to know enough to treat themselves and their neighbors in that way that they will live as long as it is possible for them to live."<sup>51</sup>

It is misleading, however, to take such statements in isolation. At the same time he was encouraging the Saints to exert their faith, call in the elders, use only mild medication and take advantage of Mormon midwives, he was quietly, perhaps reluctantly, recognizing that times were changing. In 1867 he called Heber John Richards and Joseph S. Richards, sons of Willard Richards, to go to Bellevue Medical College in New York. By 1871 Heber was back in Salt Lake in practice with Dr. Washington F. Anderson.<sup>52</sup> In 1872 Brigham sent his nephew, Seymour B. Young, to attend the New York College of Physicians and Surgeons.

Brigham's growing acceptance of doctors and medicine was probably in response to the changes he observed around him. The continuing efforts of some conscientious regular doctors (Anderson, Bernhisel and probably Sprague, for example) may have contributed to a softening of his attitude.<sup>53</sup> The coming of the railroad, the development of the mining industry and the founding of hospitals (by non-Mormon churches) to meet the growing health problems in Utah, along with an increasing population of Gentiles—and Gentile doctors—meant that the Saints were likely to need more modern and efficacious alternative help than their own homestyle remedies and practices could give them. Just as he had warned his flock away from Gentile lawyers and schools, Brigham was concerned lest they become dependent upon doctors not of the faith. He was no doubt aware of the improving level of medical care and a diminution in the excesses of the old "poison" doctors' methods, including such medical advances as anesthesia and antiseptic surgery.

Brigham's changing attitude toward orthodox medicine was most dramatically demonstrated when Dr. Seymour B. Young, his nephew, attended him throughout the last three years of his life. During his final illness he was attended, not only by Seymour Young, but by Washington F. Anderson and two other non-Mormon doctors, Joseph Mott Benedict and his brother Francis Denton Benedict. Brigham even requested injections of a mild opiate into each foot to alleviate pain.<sup>54</sup>

When all is considered, the remarkable thing is not that Brigham Young distrusted medical doctors—how could he resist the cumulative force of the thoughts and experiences of his day?—but that he proved to be flexible. Here, as in other facets of his life, Young was capable of compromise, of reevaluation when conditions changed. Faced with steadily improving medical standards and an increase in the number of regular doctors (who attracted some Mormons), he could see the writing on the wall. Had he lived longer, he likely would have announced the compromise position that came to be identified with Mormonism: Follow the Word of Wisdom and common sense, call in the elders of the church to administer to the sick, obtain the best medical advice and treatment available, recognize God’s hand in all things.

## NOTES

<sup>1</sup>*Journal of Discourses [JD]*, 26 vols. (London, 1854–86), 4:109, 3 Aug. 1869.

<sup>2</sup>John Duffy, *The Healers: The Rise of the Medicine Establishment* (New York: McGraw Hill, 1976).

<sup>3</sup>Samuel Thomson, *A Narrative of the Life and Medical Discoveries of the Author* (Boston: printed for the Author, 1933).

<sup>4</sup>See John Heinerman, “The Mormons and Thomsonian Medicine: An Experiment in Practical Religion,” *Herbalist* 1, 5 (1976): 177–83.

<sup>5</sup>Brigham Young Secretary Journals, 2 April 1862, typescript, Church Archives, p. 262.

<sup>6</sup>Daniel Tyler, *A Concise History of the Mormon Battalion in the Mexican War, 1846–1847* (n.p., 1881), p. 146.

<sup>7</sup>Tyler, p. 183.

<sup>8</sup>Offenses Against Public Health; Acts, Resolutions and Memorials Passed at the Several Annual Sessions of the Legislative Assembly of the Territory of Utah 1850–1855, Chapter XXXII, Title IX, Sections 106, 107.

<sup>9</sup>Seventh General Epistle of the Presidency, 18 April 1852, in James R. Clark, *Messages of the First Presidency of the Church of Jesus Christ of Latter-day Saints, 1833–1964*, 3 vols. (Salt Lake City, Utah: Bookcraft, 1965), 2:98.

<sup>10</sup>Notes of Brigham Young’s medical lecture to the Board of Health at Great Salt Lake City, December, 1851, Wilford Woodruff’s journal.

<sup>11</sup>Sermon, 16 June 1861, typescript, Church Archives, p. 3.

<sup>12</sup>Sermon, 16 June 1861 p. 3.

<sup>13</sup>Brigham Young Secretary Journals, typescript, Church Archives, 2 April 1862, p. 261.

<sup>14</sup>JD 9:125, 17 Feb. 1861.

<sup>15</sup>JD 13:155, 14 Nov. 1869.

<sup>16</sup>JD 14:109, 8 Aug. 1869.

<sup>17</sup>Addenda to the Fifth General Epistle, April 16, 1851, in Clark, *Messages of the First Presidency*, 2:75.

<sup>18</sup>JD 19:67, 12:122, 13:153.

<sup>19</sup>JD 18:71–72.

<sup>20</sup>JD 13:155, 14 Nov. 1869.

<sup>21</sup>JD 4:24, 17 Aug. 1856.

<sup>22</sup>JD 15:225, 9 Oct. 1872.

<sup>23</sup>Notes of Brigham Young’s medical lecture to the Board of Health at Great Salt Lake City, Dec. 1851, Wilford Woodruff’s journal, Church Archives.

<sup>24</sup>Sermon, Bowery, 16 Jan. 1861, pp. 7–8.

<sup>25</sup>Notes of Brigham Young's medical lecture to the Board of Health at Great Salt Lake City, Dec. 1851, Wilford Woodruff's journal, Church Archives.

<sup>26</sup>JD 13:142, 11 July 1869.

<sup>27</sup>JD 14:108, 8 Aug. 1869.

<sup>28</sup>*Deseret News*, 18 September 1852

<sup>29</sup>*Harper's Weekly*, v. 13, 2 Oct. 1869.

<sup>30</sup>Elden J. Watson, ed., *Manuscript History of Brigham Young, 1801–1844* (Salt Lake City: Elden J. Watson, 1968), pp. 49, 67, 110, 124–5.

<sup>31</sup>*Journal History*, 13 April 1843.

<sup>32</sup>Lucy Mack Smith, *History of Joseph Smith by His Mother* (Salt Lake City: Bookcraft, 1958), p. 88.

<sup>33</sup>*Journal History*, 19 April 1843.

<sup>34</sup>Watson, p. 53.

<sup>35</sup>Robert T. Divett, "Medicine and the Mormons," *Bulletin of the Medical Library Association* 15 (January 1963), pp. 6–8.

<sup>36</sup>Blanche E. Rose, "Early Utah Medical Practice," *Utah Historical Quarterly* 10 (1942), pp. 15–16. Christine Croft Waters, "Pioneering Physicians in Utah, 1847–1900" (M. A. thesis, University of Utah, 1976) lists Samuel Sprague as an orthodox physician but gives no indication of his having attended medical school.

<sup>37</sup>Divett, p. 5.

<sup>38</sup>Belle A. Gemmill, "Utah Medical History: Some Reminiscences," *California and Western Medicine* 36 (January 1932), p. 4.

<sup>39</sup>From the journal of Josephine Hickman Finlayson, his daughter, in "Pioneer Medicines," *Heart Throbs of the West*, 12 vols. (Salt Lake City: Daughters of the Utah Pioneers, 1939–1950, 7:210–11.

<sup>40</sup>*Deseret News*, 13 Dec. 1851.

<sup>41</sup>See "Pioneer Midwives," *Our Pioneer Heritage*, 20 vols. (Salt Lake City: Daughters of Utah Pioneers, 1958–1977), 6:361–560 for many examples of women specifically called by Brigham Young to fulfill this duty.

<sup>42</sup>*Our Pioneer Heritage*, 6:436.

<sup>43</sup>"Pioneer Women Doctors," *Our Pioneer Heritage*, 6:398.

<sup>44</sup>Brigham Young, General Epistle, January-February 1868, Church Archives, p. 26.

<sup>45</sup>Keith Calvin Terry, "The Contribution of Medical Women During the First Fifty Years in Utah," Master's thesis, Brigham Young University, 1964, p. 46 cites this reference as JD 17:21.

<sup>46</sup>*Women's Exponent* 2 (16 Sept. 1873), p. 63. <sup>47</sup>*Ibid.*

<sup>48</sup>Salt Lake Stake (General or Cooperative) Retrenchment Association minutes, 1871–75, 13 September 1873, LDS Church Archives.

<sup>49</sup>Chris Rigby Arrington, "Pioneer Midwives," in Claudia L. Bushman, ed., *Mormon Sisters: Women in Early Utah* (Cambridge, Mass.: Emmeline Press, 1976); and several essays in Vicky Burgess-Olson, *Sister Saints* (Provo, Utah: Brigham Young University Press, 1978).

<sup>50</sup>JD 13:155, 14 Nov. 1869.

<sup>51</sup>Sermon, Bowery, 16 Jan. 1861, pp. 3–4.

<sup>52</sup>*An Enduring Legacy* (Salt Lake City: Daughters of Utah Pioneers, 1978), 1:67–68.

<sup>53</sup>Whitney Blair Young, "A History of the University of Utah College of Medicine" (Thesis for the Medical Doctorate, Kansas University, 1963), p. 12.

<sup>54</sup>See Lester E. Bush, Jr., "Brigham Young in Life and Death: A Medical Overview," *Journal of Mormon History* 5 (1978), pp. 90–96 for an account of Brigham's last few years and death.



# *Herbal Remedies: God's Medicine?*

N. LEE SMITH

A RECENT LISTENER-RESPONSE RADIO PROGRAM in Salt Lake City discussed the death of a young father from bleeding ulcers. Believing it wrong to seek medical help, he had sought a cure from an herbal practitioner. His widow called in on the radio program and strongly supported her husband's decision (despite the extreme rarity of such a death with orthodox care) because it was "part of our faith and religion to use natural means." It became evident as she went on that she and her husband were devout Latter-day Saints, and that they had somewhere picked up the notion that "natural cures" are a part of the restored gospel and equivalent to God's means for healing his children.

This theme, that natural, herbal medicines are God's medicines and that synthetically derived medicines are an uninspired intrusion by man is widely promulgated among some Latter-day Saints, especially those of pioneer heritage. Latter-day herbalists, leaning heavily on readily available quotes from early Church leaders to "stay away from uninspired physicians" and to trust in the Lord, rather than the arm of man, are earnestly trying for a credible rejuvenation.<sup>1</sup>

A recent letter to the editor of the *Deseret News* (19 April 1979) stated,

As a member of the LDS church . . . I must express my feelings about your recent article on medical quackery (April 9). The article would have us believe the drug and surgery doctors are the "good guys" and all other health practitioners are the "bad guys." I resent that because it leaves my church and my God on the wrong side of the fence. In particular, I resent the inclusion among the "quacks" of the doctors who treat with herbs.

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N. LEE SMITH is a physician in private practice in Salt Lake City, Utah. He is on the clinical faculty at the University of Utah School of Medicine.

Significant numbers of Mormons wanting to live by faith quietly shun orthodox medicine and seek "natural cures" as a tenet of their faith. An occasional general authority lends further credence to the herbalist argument.

In a recent study on cancer for the state of Utah, Kay Gillespie found that of those using quack methods (unproven herbs, prisms, pendulums, etc.), the bulk were LDS (as was also the case in some parts of neighboring states) whose motives were based, often strongly, on religious tenets. Seminars conducted for these practitioners "began with a Mormon rationale based on the Word of Wisdom and quoted church leaders as a beginning foundation for the importance of the work to be done in the seminar."<sup>2</sup>

One of their number, jailed for violation of state health laws restricting use of methods he regarded as a "God-given gift," wrote:

The law of God is over the law that man makes to forbid him to obey these commandments. I cannot disobey my God . . . this man-made evil law of practicing medicine defies the law of God . . . this law violates my religious convictions, my constitutional right to religious belief, and also violates the same who wishes my counsel and help.<sup>3</sup>

Recent lobbies to remove Utah and national health laws restricting unproven methods (as well as the majority of callers on the radio show mentioned above) feel such regulations violate free agency since they "restrict an individual's freedom to choose between God's methods and man's methods" of health care.

Gillespie's study concluded:

The findings of this research indicates a strong religious background among those studied—both quacks and patients. This religious background was found to be predominantly Mormon and tends to be influenced by [early] Mormon teachings and beliefs.<sup>4</sup>

Any physician seeing many Mormon patients can reaffirm that conclusion. It is remarkable, when questioned in depth, how many faithful Mormons are using various herbs either in addition to, or instead of regularly prescribed regimens.

#### *ORIGINS IN THE TEACHINGS OF JOSEPH SMITH*

Joseph Smith's affinity for herbal remedies, and antipathy for the standard medical heroics of his day are both easily documented and readily understood. As summarized elsewhere in this issue of *Dialogue* by Robert T. Divett, many Americans of the 1820s and 30s shared with Joseph a contempt for the bloodletting, cupping and purging with toxic compounds that had by then become the American standard.

Much of the popular rebellion against the medical orthodoxy of early America arose from a widely read book by John Wesley, founder of the Methodist church, entitled *Primitive Physick*. The book appealed to the colonial layman both by confirming his mistrust of an orthodox medicine which

seemed to alienate "physick" from ordinary man ("where it properly belongs") and by emphasizing that the use of herbs brought it back within reach (that "each man may be his own doctor"). The appeal was not limited to the uneducated. Thomas Jefferson, who once had observed that "the lads in Philadelphia, with their calomel and arsenic, are vieing with the sword of Napoleon for shedding the blood of man," proposed to the Secretary of War that the seneca root (cayenne pepper) be substituted for the troop's ration of grog, to combat the dysentery caused by Britain's intentional pollution of springs and wells.<sup>5</sup>

The Joseph Smith family was one among many to have unhappy experiences with early American orthodox medicine. Diagnosed by her doctor as hopelessly ill with consumption (possibly tuberculosis)—a dreaded disease which already had claimed two of her sisters—Joseph's mother Lucy found healing power in her prayer of faith. Orthodox doctors also gave up on Joseph's sister Sophronia during the devastating typhoid epidemic of 1812–13, but Lucy's touching prayer, together with those of Joseph, again seemed to turn the tide in Sophronia's recovery. When typhoid also struck young Joseph, causing the painful bone infection now called osteomyelitis in his leg, the family, in keeping with the then current state of the art, was advised that amputation was necessary. Although Joseph's leg was saved by the advanced skills of the orthodox Dr. Nathan Smith, the previous medical advice, as well as the grizzly scene presented by the unanesthetized surgery that saved the leg, dominated family memories of the event, and reinforced the impression of the unreliability of medicine.<sup>6</sup> Joseph, who was on crutches for three years, limped the rest of his life as a reminder of that experience.<sup>7</sup> The event that most embittered young Joseph toward "the poison doctors," however, was the death in 1823 of his oldest brother Alvin, apparently from complications of a dose of calomel.

As orthodox medicine began to be challenged by herbalism during the 1820s and 30s (particularly in the Mormon areas of New England, New York and Ohio), the Smiths' experiences with heroic physicians led them to the more benign herbal remedies. Lucy personally "doctored" many of her Palmyra neighbors with herbal remedies,<sup>8</sup> and Joseph's father in a possibly related venture attempted to go into the business of exporting New England ginseng root to China.<sup>9</sup>

Joseph Smith's early herbal leanings were likely reinforced as he began to read and reveal the scriptures describing ancient treatment methods. The *materia medica* of the *rophen* physicians of the Bible was essentially all herbal, with herbs mentioned over 37 times in Biblical passages.<sup>10</sup> Isaiah healed King Hezekiah of a near fatal boil with a dressing of figs (2 Kings 20:7). Rachel desired mandrake in an attempt to help her conceive (and Leah used it to win Jacob's affections) (Genesis 30:14–16).<sup>11</sup> The hyssop frequently mentioned, and given to Jesus upon the cross (John 19:24), was used anciently for infections and is of interest in that *Penicillium notatum* (the source of penicillin) is a fungus that grows specifically on the hyssop vine. Ezekial foresaw on trees growing along the river which was to spring from under the rebuilt Jerusalem temple, "the leaf thereof for medicine" (Ezekial 47:12).

Joseph also reported, from the golden plates, that Nephite fevers had been cured by "the excellent qualities of the many plants and roots which God had prepared to remove the cause of diseases" (Alma 46:40). And Latter-day Saints as well, Joseph revealed, were advised by the Lord that "whosoever among you are sick, and have not faith to be healed, shall be nourished with all tenderness, with herbs and mild food" (D&C 42:43). Through the Word of Wisdom he added that "tobacco is . . . an herb for bruises and all sick cattle, to be used with judgement and skill . . . all wholesome herbs hath God ordained for the constitution, nature and use of man" (D&C 89:8,10). While the latter reference is more in the context of foods than herbal remedies, it is clear that Joseph believed that God had endowed the earth with plants having healing capacity.

By the 1830s, the Popular Health Reform Movement also had spread from New England to Ohio. While not, strictly speaking, herbalist, this crusade had many advocates and ideas in common with the botanical approach. Spearheaded by Sylvester Graham (of Graham cracker fame), Ellen G. White, and later the Kelloggs and C.W. Post, the Popular Health movement condemned (as did prominent herbalists) the use of alcohol, tobacco, tea, coffee, opium and artificial stimulants.<sup>12</sup> Excessive meat eating was condemned<sup>13</sup> and grains encouraged. Enthusiasm for the reforms was high in Ohio, and in 1833, Joseph's inquiry of the Lord led to confirmation of the validity of several.<sup>14</sup> The wording of the Word of Wisdom frequently parallels that of Health Reform tenants.<sup>15</sup> In addition, there were other reformist (and often herbalist) health guidelines in Sections 89 and 88:124 ("cease to sleep longer than is needful; retire to thy bed early, that ye may not be weary; arise early, that your bodies and your minds may be invigorated").

A further symbiosis seems apparent between Joseph's revelatory experience and the influence of those stalwart Mormon herbalists constantly at his side, beginning in 1831 with his counselor-to-be Frederick G. Williams, and extending through Thomas B. Marsh (later President of the Quorum of the Twelve) to the Richards brothers (Willard, Levi and later Phineas). Each of these intimates practiced the herbal methods of Samuel Thomson, the highly unorthodox evangelist of anti-doctor herbalism whose influence had preceded the Mormons into each area they settled.

Thus it is more interesting than surprising to learn that Joseph, in 1834, denounced a teaching by Lyman Wight—a common notion often derived biblically—that "all disease in this church is of the Devil, and that medicine administered to the sick is of the Devil." Rather, Joseph advised the Far West High Council that,

It is not lawful to teach the church that all disease is of the Devil. And if there is any that has this faith, let him have it to himself. And if there are any that believe that roots and herbs administered to the sick . . . in order that they may receive health, and this applied by any member of the church, if there are any among you that teach that these things are of Satan, such teaching is not of God.<sup>16</sup>

In Nauvoo, where the Saints were inundated with infectious and nutritional diseases, Joseph wrote:

I preached to a large congregation at the stand, on the science and practice of medicine, desiring to persuade the Saints to trust in God when sick, and not in the arm of flesh and live by faith and not by medicine, or poison; and when they were sick, and had called for the Elders to pray for them, and they were not healed, to use herbs and mild food.<sup>17</sup>

He was more specific in his advice to new immigrants in 1843:

If you feel any inconvenience, take some mild physic two or three times, and follow that up with some good bitters. If you cannot get anything else, take a little salts and cayenne pepper. If you cannot get salts, take ipecacuanha ["pecosia" in manuscript] or gnaw down a butternut tree, or use boneset or horehound.

He added a caution, however, about herbal as well as orthodox medicine:

Calomel doctors will give you calomel to cure a sliver in the big toe; and they do not stop to know whether the stomach is empty or not; and calomel on an empty stomach will kill the patient. And the lobelia [herbal] doctors will do the same. Point me out a patient and I will tell you whether calomel or lobelia will kill him or not, if you give it.<sup>18</sup>

Most of the doctors among the early Saints were Thomsonian herbal practitioners, so certified by a \$20 fee and a pledge not to reveal the secrets from Thomson's herbal guidebook to orthodox physicians (see the accompanying copy of Willard Richard's certificate). One wonders if such easy access to the practice of medicine contributed to Joseph's further caution:

You that have little faith in your Elders when you are sick, get some little simple remedy in the first stages. If you send for a doctor at all, send in the first stages.

All ye doctors who are fools, not well read, and [who] do not understand the human constitution, stop your practice.<sup>19</sup>

Years later, Priddy Meeks, a colorful herbal evangelist who established herbal Councils of Health in Utah similar to a Thomsonian Board of Health authorized by Joseph Smith in Nauvoo,<sup>20</sup> observed

Joseph Smith said that Thomson was as much inspired to bring forth his principle of practice according to the dignity and importance of it as he [Joseph] was to introduce the gospel . . . then we should look on those [herbal] principles as an appendix to the gospel, as a temporal salvation.<sup>21</sup>

Whether Joseph actually said this or not, it is not unreasonable to think that he might have, given the setting and intensity of the herbalist philosophy in

THOMSON'S



PATENT.

**To all Persons whom it may concern:**

*This may Certify, That I have this day appointed*

*Willard Richards* of *Richmond* State  
of *Massachusetts* a Sub-Agent; and he is hereby authorized and  
empowered, to administer, use and sell the Medicine secured to SAMUEL  
THOMSON, by Letters Patent from the President of the United States; and  
also, to sell FAMILY RIGHTS, (signed by me, the Agent of SAMUEL  
THOMSON, with one of his NEW GUIDES TO HEALTH, and a NARRATIVE OF  
HIS LIFE, to each Right; all of which are to be furnished by myself,) to all  
suitable persons, except *Physicians or their Students*, and collect pay for the  
same. The price of FAMILY RIGHTS is, in all cases, Twenty Dollars. This  
agreement to continue and be in force for the term of *one* year,  
if not previously revoked by me, or the Patentee.

Given under my hand, at *Stockbridge* this *third*  
day of *October* in the year of the common era one thousand  
eight hundred and thirty-*three*, and of the nation 58

*Joseph Skismin* Agent for Samuel Thomson.

**Extra and Confidential to Agents, to be given at discretion to the Purchasers of Rights.**

To prepare *Cousters of Hollyhock*...Take one pound of fresh blossoms; bruise them in a mortar; add four pounds of white sugar; pound them well together until it forms a paste. Then take the compound of two ounces of peplur bark, two ounces of barberry, two ounces of golden seal, two ounces of cloves, two ounces of cinnamon, two ounces of nerve powder, one ounce of cayenne, half ounce of bitter-root, mix them well together, and knead it with the pestle in a mortar until it becomes thick as dough. Then add one table-spoonful of the oil of pennyroyal; pound them well together, to be kept in the loaf, or rolled into pills. To be taken for all complaints caused by Cold, and other disease, without any regard to names. The above powder, with the same weight of sugar, made fine, will make good spice-bitters for wine. Put two ounces of the compound into one quart. The powders may be eaten dry, or taken in hot water, with more sugar. No spirit is recommended in this medicine.

[P. Three things are to be observed by agents, viz.

1. To do justice to the proprietors, yourself, and the public.
2. To sell no Rights to *Doctors*, or those who have studied their authors for a rule of practice; as they will most assuredly corrupt the System, as several have already done.
3. To keep no poisonous drugs in your shop, as no one should sell to others what he would not use himself, nor recommend to be used; or suffer any human blood to be shed, with the lancet or otherwise, by your consent.

*Willard Richards' certificate as a Thomsonian practitioner.*

which he was immersed.<sup>22</sup> Not only did the herbal approach have apparent scriptural endorsement and great contemporary popularity, but in actual practice Thomsonian physician Levi Richards had proved to be, in Joseph Smith's words, "the best physician I have ever been acquainted with."<sup>23</sup>

In addition to botanic practitioners, there were orthodox physicians appointed to positions of leadership within the early Mormon community. As in the practice of medicine, their ecclesiastical record proved the antithesis of their herbalist colleagues. Orthodox doctors John C. Bennett, and *Expositor* conspirators William Laws and Robert Foster caused serious problems for the prophet and his people. Among the regular physicians close to Joseph only John Bernhisel, who contrary to orthodox practice accepted consultations with Thomsonians, proved faithful to the end.<sup>24</sup> Bennett, as Mayor of Nauvoo and member of the First Presidency, could have wielded the greatest orthodox influence on Joseph, but ironically he instead drifted to herbalism during his stint in Nauvoo. He placed a series of articles in the *Times and Seasons* advocating tomatoes as a general panacea,<sup>25</sup> and according to Divett, he joined a Botanico-Medico Institute after leaving Nauvoo.

### PIONEER MEDICINE

In early Mormon sentiment few physicians engendered greater animosity against heroics and in favor of herbals than did the infamous George B. Sanderson, "Doctor Death" to the Mormon Battalion. Sanderson, an orthodox physician of the heroic school who apparently relied exclusively on calomel, arsenic, bayberry bark and camomile flowers administered to man after man from the same old rusty spoon,<sup>26</sup> was assigned by the army as battalion surgeon to the Mormons. Mormon herbalist William L. McIntyre already had been appointed by Church leaders to care for the Battalion, and Brigham Young had made clear the Church position on proper medical care:

Camp of Israel, Omaha Nation, Cutler's Park  
August 19, 1846

*To Captain Jefferson Hunt and the Captains, Officers, and Soldiers of the Mormon Battalion:—*

We have the opportunity of sending to Fort Leavenworth, this morning, by Dr. Reed, a package of twenty-five letters, which we improve, with this word of counsel to you all: If you are sick, live by faith, and let the surgeon's medicine alone if you want to live, using only such herbs and mild food as are at your disposal. If you give heed to this counsel, you will prosper; but if not, we cannot be responsible for the consequences. A hint to the wise is sufficient.

In behalf of the Council,

Brigham Young, President

W. Richards, Clerk.<sup>27</sup>

Dr. Sanderson, however, "threatened with an oath to cut the throat of any man who would administer any medicine without his orders . . . under pain of this threat he [herbalist McIntyre] must not administer one herb to

his afflicted friends and brethren unless ordered so to do by the mineral quack who was his superior in office. Every morning at sick call, those who were unable to travel reported themselves to the surgeon, not only to receive his medicine but his wicked cursing also."<sup>28</sup>

Bitter antipathy toward "mineral quacks" (also called "the poison doctors") persisted for decades among Battalion returnees. At an 1855 reunion, Captain Brown offered a toast: "Here's to all oppressors of the Mormon Battalion, may they wither as the leek, and be carried by the Devil . . . Here's hoping old Dr. Sanderson's profession in the future state may be giving calomel to our enemies in hell."<sup>29</sup>

The first years after arrival in the Great Salt Lake Valley, the Mormon pioneers saw sickness running rampant, due largely to the primitive sanitary conditions.<sup>30</sup> The overtaxed botanic practitioners determined to establish a "Council of Health" to teach each person how to care for himself with indigenous herbs. These councils were reminiscent of Samuel Thomson's "Friendly Botanic Societies" set up for similar purposes. Priddy Meeks claimed responsibility for establishment of the Council, which eventually had far reaching effects on Utah medical tradition.

The second winter we were in the valley, Apostle Willard Richards wintered in a wagon by a foot stove alone . . . We had but little time for ourselves, viewing the situation of so much sickness. I proposed to my two partners in medicine, Brothers Morse and Richards, for us to form some kind of an association for giving information to the mass of the people in regard to doctoring themselves in sickness so as to help themselves and lighten our burdens.

So we three went into the wagon to Apostle Richards and made known our wishes on the subject and he approved of it very readily and we formed a society. And Apostle Richards named it the Society of Health . . . the Spirit impelled Brother Richards to prophesy that those principles that we were about to publish to the world would never die out or cease until it had revolutionized the earth. That declaration was an impetus to me that is in my breast today. They saw fit to appoint me President of the Institution . . . they chose Doctor Morse and myself to scour the canyons every Wednesday in search of roots and herbs to present to the Council on the next day . . . the masses of people then began to profit by it because of the knowledge they had gained to know what to do.<sup>31</sup>

The first issue of the *Deseret News* (15 June, 1850, Willard Richards, editor) announced that regular Council of Health meetings were being held in Dr. Willard Richards' home every two weeks and added

though we may fail to convince some of the superiority of the botanic practice, we feel confident that our exertions under this head will shake the faith of many in the propriety of swallowing, as they have long done with implicit confidence, the most deleterious drugs . . . believing in the goodness of the creator that He has placed in most lands medicinal plants for the cure of all diseases incident to that climate, and especially so in relation to that in which we live.



The latter part is pure Thomsonian theory. How it fit with the need to import lobelia, along with cayenne and other eastern herbs forming the cornerstones of Thomsonianism, was never elucidated.

By 1852, attendance had expanded sufficiently to hold the Council of Health meetings in the old Tabernacle and later in the Social Hall. Women came from many communities to learn the herbal techniques for use at home, and the meetings abounded with testimonials of herbal cures and the evils of "the poison doctors."<sup>32</sup>

The meetings usually carried a distinctly religious flavor, with frequent speaking or singing in tongues, interpretation of blessings, and descriptions of "inspired" dreams endorsing lobelia. As a historian of the subject has noted, "It may not have been exactly what Samuel Thomson had in mind, but, as Dr. Phineas Richards wrote, it did make for a 'good meeting'."<sup>33</sup>

Within a few years, some with more orthodox leanings began to attend the meetings, but their attempts to attribute disease to violation of sanitation principles were met by considerable resistance from the majority who, despite Joseph Smith's remarks to the contrary, still viewed illness as arising from faithlessness and sin. In 1851, the Committee of the Council of Health attempted to persuade Orson Spencer, Chancellor of the University of Deseret, that the Council should become part of the University, a suggestion that Spencer quietly allowed to die.<sup>34</sup>

In keeping with Samuel Thomson's notion that mothers should be their families' doctors, the council drew most of its 300 members (1852) from Mormon matriarchs.<sup>35</sup> As W. W. Phelps observed, the purpose of the Council seemed to be "to learn females how to take care of themselves."<sup>36</sup> With no resident physicians for many years, smaller Utah communities relied solely on the remedies and philosophies taught at the early Council of Health meetings. Such remedies were often handed down as family traditions, and form an important basis for today's warm feeling toward herbs in many Mormon homes. One doesn't need to look far for a favorite aunt with a passionate faith in certain herbs originally taught in these pioneer Council meetings.

Utah's first health law (1851) reflects the sentiment of the time. A list of "deadly poisons" was included, the unconsented use of which was punishable by a \$1000 fine and one year hard labor. The list of poisons "such as quicksilver [mercury or calomel], arsenic, antimony . . . or cicuta, deadly nightshade, henbane, opium [all herbs] . . . under pretense of curing disease" was remarkably similar to Thomson's catalogue of forbidden drugs,<sup>37</sup> and were the standard contents in the orthodox ("poison doctor's") bag. It is of note that herbs always have been used by orthodox doctors. As new herbs were accepted by orthodox physicians, however, they typically were rejected by the Thomsonians. A classic example is the quinine (from cinchona tree bark) that could have cured the malaria that plagued the Saints for decades, but which was condemned by many herbalists because of its orthodox acceptance.<sup>38</sup>

The Mormon Reformation of the latter 1850s brought a renewed emphasis on priesthood healing. The Saints were attacked from the pulpit for their

undue "trust in the arm of man" as evidenced by excessive reliance on doctors (of all types). Jedediah M. Grant, who replaced Willard Richards in the First Presidency, led the Reformation evangelization—and apparently died from the overexposure attendant upon his prolific rebaptizing of hundreds of recommitted Saints. From the Tabernacle podium Grant decried those who

first try the physician, have the head shaved, take a dose of calomel and gamboge, have blister plasters on the back of the neck, and another all over the bowels, besides one on each hip . . . when James is about dead, having had two quarts of blood taken out from him Saturday, and another on Monday, and when the life is nearly drawn out of the poor fellow by physicking and bleeding, why then they send for the elders, and ask them to pray for him.

Thomsonians were not exempt:

you know that it is hardly allowable in Utah to drink any more than five gallons of lobelia at once, for the Assembly of Deseret once had the matter under consideration.<sup>39</sup>

This same symbol, that of "seeking the doctor first before the elders" as an indication of waning faith, was to be reemphasized even more frequently during the renewed reformation spirit later in the 1880s and 90s. Its emphasis apparently cooled even the herbalist fervor. As the original Thomsonians aged and moved out to distant settlements (Priddy Meeks settled in Parowan), and particularly with the death in 1854 of their key spokesman, Willard Richards, and with the reformation stifling any new generation of botanic champions, the herbal Councils of Health quietly died. The last reference to it appears in the Phinehas Richards journal of August, 1855.<sup>40</sup>

After this time, faithful but nonheroic orthodox physicians such as Dr. William France began to exert more influence. France, always careful to avoid offending the herbally inclined, intermittently recorded community health statistics in the *Deseret News* (after Willard Richards was no longer editor).

As Linda Wilcox has demonstrated elsewhere in this issue of *Dialogue*, Brigham Young's sympathies and counsel during the early pioneer years lay in the herbal camp. Eventually, however, he demonstrated considerable capacity to adapt his attitudes to changes taking place in medicine. With typical practicality he said,

If we are sick and ask the Lord to heal us, and to do all for us that is necessary to be done, according to my understanding of the Gospel and salvation, I might as well ask the Lord to cause my wheat and corn to grow without my plowing the ground and casting in the seed. It appears consistent to me to apply every remedy that comes within the range of my knowledge, and to ask my Father in Heaven, in the name of Jesus Christ, to sanctify that application to the healing of my body. To another this may appear inconsistent.<sup>41</sup>

In selecting medical counsel, he cautioned,

Now let me tell you about doctoring, because I am acquainted with it, and know just exactly what constitutes a good doctor in physic. It is that man or woman who, by revelation, or we may call it intuitive inspiration, is capable of administering medicine to assist the human system when it is besieged by the enemy called Disease; but if they have not that manifestation, they had better let the sick person alone . . . Who is the real doctor? That man who knows by the Spirit of Revelation what ails an individual, and by the same Spirit knows what medicine to administer. That is the real doctor, the others are quacks.<sup>42</sup>

### THE ADVENT OF SCIENTIFIC MEDICINE

The arrival of the railroad in Utah (1869), bringing new physicians among the immigrants, coincided with a period when medical science was finding that many cherished theories were not only useless, but harmful. The heroic approach had been thoroughly discredited, and the notion that God had provided plants to cure disease was demonstrated to be true, at least to the extent that a few herbs were proved effective and safe, while newer, more useful ones were discovered. Generally, however, Thomsonian herbs were found to be less effective at safe doses than many herbs being used by the orthodox, but nonheroic doctors.<sup>43</sup>

Before 1900, fully 80% of all medicines were from roots, barks and leaves. Fluid extracts were prepared by percolating approximately one pound of crude botanical with one pint of alcohol; teas were similarly prepared. (These same methods are used by herbalists today.) Great unreliability was found once testing began because of the variations in "active ingredients" from one crop of herb to another, and to great fluctuations in the amount of the drug extracted in the fluid preparations. In addition, most herbs were found to contain a mixture of drugs, which often caused conflicting actions. For these reasons, attempts were made to isolate the "active ingredient" from herbs proved useful, a technique introduced in Germany in the early 1800s.<sup>44</sup> By repeated testing, dosages were finally standardized and rendered more reliable. For the first time it was possible to achieve an effective yet not quite toxic dose. It is this therapeutic-to-toxic-dose ratio that determines a drug's usefulness. Eventually, in the twentieth century, these chemical components thus separated from a plant were created synthetically in the laboratory. The synthetically derived drug was often found to be more reliably absorbed into the body because of the lack of inert vegetable material encrusting it.

By the late 1800s the beginnings of modern medicine were taking hold. Germs of the bacterial variety were discovered. Public hygiene began to filter in from England, and the latest recommendations were published in the *Salt Lake Sanitarian* with gratifying results. In 1870, George Q. Cannon editorialized on the nature and prevention of infections. In an excess of germicidal zeal, the *Women's Exponent* labeled kissing "a pestilent practice and sure

means of spreading contagion" through "mingling breaths and mouth secretions."<sup>45</sup> Other discoveries met with more resistance, however, as will be illustrated later in the immunization controversy.

The improved medicine coincided with a growing body of well respected orthodox physicians in Utah, and the waning of socially important botanics. The personable (and orthodox) Washington F. Anderson, who never fully accepted Mormon theology but made clear his appreciation for the Mormon people, became a good friend of Brigham Young, and has rightly been credited with leavening the medical views of Brigham and his followers. Within very few years after his arrival in 1857, Anderson became a dominant figure in Utah medicine, serving as division surgeon of the Nauvoo Legion, Chairman of the Board of (Medical Licensing) Examiners, and (in 1876) the first president of Utah's fledgling medical society. He was one of two men (with Brigham's nephew Seymour B. Young) on the staff of the Church's first hospital, and also with Seymour Young, cared for Brigham in his last hours.<sup>46</sup>

Seymour Young (together with a son of Willard Richards) was among a group of young Mormons called in the 1870s by Brigham, to go east to study scientific (orthodox) medicine, a signal of the prophet's changing medical sentiment. Seymour Young rose to become "city physician" for Salt Lake in 1876 and a member of the First Council of Seventy in 1882.<sup>47</sup> In 1875 Eliza R. Snow announced a plan to send a number of young women east to study medicine at the expense of the Relief Society. About twenty responded and returned to practice in the territory.<sup>48</sup>

As ailments mounted in his final years, Brigham placed himself in the care of his orthodox nephew, Seymour. Other General Authorities were also seen frequenting physicians' offices, thereby causing a stir among herbal believers. James Henry Moyle recalled,

When our neighborhood learned that the President of the Church and the chief officers of the church had regularly attended physicians whose services were actually called into use even when the sickness was not serious, it was something of a shock.<sup>49</sup>

In his final grizzly illness, Brigham again sought allopathic (orthodox) physicians and their morphine for his terrible pain. This choice in his most critical hours spoke clearly of the evolution of his medical thinking, even more so since three of the doctors were not Mormon.<sup>50</sup>

#### OFFICIAL CHURCH SANCTION OF ORTHODOX MEDICINE

The first clearcut, official endorsement of allopathic medicine by the church came with the opening in 1882 of the Hospital of Deseret, established by the Relief Society. Dedicated by John Taylor, the hospital was staffed by six orthodox physicians, including Drs. Ellis Shipp (called by Brigham Young, educated at Women's Medical College in Philadelphia), Seymour Young, Washington F. Anderson and Romania Pratt (wife of apostle Parley

P. Pratt).<sup>51</sup> The Hospital of Deseret became the forerunner of the present church hospital system dedicated to the best in scientific medicine.

In 1883, an orthodox medical school, the Medical College of Utah, was established at Morgan by non-Mormon Dr. Fredrich Kohler. The school was encouraged by Church authorities, and the Bishop of Morgan, William Parkinson, was its first president. Emmeline Rich, wife of Apostle Charles Rich, became its prize student and later Professor of Obstetrics. Despite this implied church endorsement, the *Salt Lake Herald*, exuding the old antidoctor sentiment and fearful that the school might be one of the rash of unethical medical diploma mills popping up throughout the midwest (which it wasn't<sup>52</sup>), waged a vigorous and successful campaign to rid the territory of "the menace." Within three years (one full course) the school closed its doors.

In 1893, President Wilford Woodruff made clear his interest in extending scientific care when he travelled with Zina Young (General Relief Society President) through the smaller, medically underserved communities, soliciting three women per ward to come to Salt Lake City to study at a "School of Medicine" taught by Dr. Ellis Shipp. This seems to be an attempt to provide such communities with "well read" midwives, and to correct some of the earlier herbal philosophies propagated by the "Council of Health."

Some of the Saints regarded these hierarchical endorsements of regular medicine not so much as inspired but as an unhappy acquiescence to all the unfaithful Mormons who would seek the new physicians anyway. It was "better to have them turn to Mormon doctors than to gentiles." Modern Mormon herbalists hold the same view and see the change in sympathies as indicative of the loss of faith and inspiration within the church.<sup>53</sup> Faithful Mormons who welcome the change see it as an inspired response to a changing situation. However perceived, the historical record shows that church leaders essentially reversed their feelings toward orthodox medicine when it became more reliable.

As the Saints sought the help of physicians more avidly, with increasing therapeutic success during the 1880s and 90s, a new concern became evident. George Q. Cannon expressed this in an 1893 editorial in the *Juvenile Instructor*:

Children who are taught by their parents to desire the laying on of hands by the Elders when they are sick, receive astonishing benefits therefrom, and their faith becomes exceedingly strong. But, if instead of teaching them that the Lord has placed the ordinance of laying on of hands for the healing of the sick in His Church, a doctor is immediately sent for when anything ails them, they gain confidence in the doctor and his prescriptions and lose faith in the ordinance. How long would it take, if this tendency were allowed to grow among the Latter-day Saints, before faith in the ordinance of laying on of hands would die out? . . . There is great need of stirring up the Latter-day Saints upon this point. Faith should be encouraged. The people should be taught that great and mighty works can be accomplished by the exercise of faith. The sick have been healed, devils have been cast

out, the blind have been restored to sight, the deaf have been made to hear, lameness has been cured, and even the dead have been raised to life, by the exercise of faith. And this too, in our day and in our Church, by the administration of God's servants in the way appointed. All these things can again be done, under the blessing of the Lord, where faith exists. It is this faith that we should seek to preserve and to promote in the breasts of our children and of all mankind.<sup>54</sup>

Perceiving a dwindling of belief among the Saints during the difficult final decades of the nineteenth century, church authorities issued a vigorous call for renewed faith. As during the Reformation of the 1850s a number of the Brethren again cited "calling for the doctor first" (including herbalists) as a symbol of waning faith, and challenged the members to energize their priesthood and put their healing power to the test.<sup>55</sup>

With the turn of the century, sermons on lost faith mellowed, but reminders germane to our own day were occasionally heard. Susa Young Gates, writing in the first *Relief Society Bulletin*, urged:

This people are not narrow in their views on the subject of physicians, but we must sound a warning cry in the ears of the women of the Relief Society, that they fail not in their duty to teach lessons of faith in God and in the laying on of hands for the healing of the sick, to their families . . . Is there any lack of power in the Priesthood? On the contrary, there has probably never been more power and efficacy in the united ranks of the priesthood than at the present time.

About the same time (1902), President Joseph F. Smith also counseled that when faith was not sufficient to effect a cure,

let a reputable and faithful physician be consulted. By all means, let the quack, the traveling fakir, the cure-all nostrum and the indiscriminate dosing with patent medicine be abolished like so much trash.<sup>56</sup>

The opening of the modern, well-equipped Latter-day Saints Hospital in 1902 marked more clearly than ever the Church's endorsement of scientific medicine. A 6 January 1905 *Deseret News* editorial put this event into perspective:

The hospital is to be dedicated along the lines of 'Mormon' regulations. . . The prayer of faith is efficacious in all forms of affliction. But all people have not faith to be healed, nor do all who have faith possess it in the same degree. Remedies are provided by the Great Physician or by Nature as some prefer to view them and we should not close our eyes to their virtues nor ignore the skill and learning of the trained doctor . . . It gives evidences that 'Mormon' enterprise is abreast of the times and that L.D.S. are ready to avail themselves of scientific knowledge and progress, and are not slow to move with the movement of modern thought and learning.

Many Saints, however, continued to delay seeking medical aid until death was imminent.

## THE FINAL CONTROVERSY

The Mormon embracement of scientific medicine had progressed to the point where routine as well as serious problems were generally entrusted to orthodox medical doctors. Some public health measures—"sanitary reform"—were also increasingly accepted after the turn of the century.<sup>57</sup> Other such measures, e.g., the acceptance of immunizations, still generated strong sentiments very reminiscent of an earlier day.

Smallpox, entering the Salt Lake Valley for the first time in August, 1856,<sup>58</sup> was present among the Mormons into the twentieth century. Often there were severe epidemics with a high death rate. Utah came to be considered by national public health officials a major source from which smallpox was spread to the rest of the country, and on at least two occasions it was alleged that Utah Mormons had started epidemics abroad—in England and New Zealand. Indeed, the state carried an infection rate early in the twentieth century several hundred times that of (vaccinated) east coast states.<sup>59</sup> This was attributed in large part to Utah's refusal to undertake a vaccination program.

Although available in the United States since about 1800, vaccination had never been accepted by the vast majority of Mormons. Utah pioneers relied instead, on such traditional approaches as hanging raw onions in the home. Even when the Church leaders came to appreciate the merits of vaccination and spoke publicly in its behalf, their recommendations were largely ignored. Such appeals by George Q. Cannon of the First Presidency (1870)<sup>60</sup>, by the sisters of *The Woman's Exponent* (1875–1878)<sup>61</sup> and by Dr. Ellis Shipp (1888) (endorsed by the First Presidency) availed little.

When a smallpox epidemic struck Utah again, in 1900–1901, the public response was once again apathetic. The strain was so mild that some doctors doubted it was smallpox at all. This apathy greatly troubled the State Health Commissioner, Dr. Thomas B. Beatty, a non-Mormon, who feared that neglect would lead to rapid spread of the disease. To Beatty the only solution was compulsory immunization. Accordingly, at his behest, and with the endorsement of the Utah State Medical Association, the State Board of Health enacted an ordinance requiring children to be vaccinated before being admitted to school effective Christmas, 1900.

Leading the anti-vaccination forces was the influential editor of the *Deseret News*, Charles Penrose, who downplayed reports of the epidemic severity. Penrose had been raised in England under a compulsory vaccination law which many viewed as a violation of human rights. Perhaps more to the point, the English law had been implemented with primitive methods and virulent strains that seemed to cause more disease than it prevented. By 1900, however, techniques for producing and administering the vaccine had been improved greatly, and the grave dangers alleged by the anti-vaccinationists were largely a thing of the past. Feeling as strongly as they did about the validity of their respective positions, Beatty and Penrose became embroiled in a heated public debate. Adjectives like "ignorant . . . bigoted . . . radical . . . totally unwarranted" flowed freely.

The *Deseret News* editorials, regarded by many Mormons as the “Church” position, appealed directly to the anti-orthodoxy of the not-too-distant past:

The arm to arm method is consigned to the graveyard where lie buried so many of the nostrums that once made up the orthodoxy of medical science(?), by the side of phlebotomy [bloodletting], leeching, salivation, the denial of water to fevered patients, and similar monstrosities which it was once really dangerous to denounce.<sup>62</sup>

Allegedly successful alternative remedies were published: cream of tartar, Epsom Salts and lemon. Some of the more hearty had used a tea made from sheep droppings. Frightening rumors were fanned, such as the report that a man had lost his arm as a result of vaccination. (In response to which Dr. Beatty offered a \$1000 reward to anyone who could produce such a case; no takers emerged.)<sup>63</sup>

Ultimately an official First Presidency statement was issued. The 17 November 1900 *Deseret News* carried counsel, signed by Presidents Lorenzo Snow and George Q. Cannon, that “aware that there is a difference of opinion,” they nonetheless felt it appropriate to “suggest and recommend that the people generally avail themselves of the opportunity to become vaccinated.” It wasn’t clear from the statement where the Presidency stood on compulsory immunization (“we have regarded it largely as a matter of individual choice”), and it was on this point that Penrose and the *Deseret News* carried forth their campaign unabated. An indication of where Mormons in general stood on the question came 30 January 1901 with the overwhelming passage over the Governor’s veto, of the McMillan Bill, which rescinded the Board of Health’s compulsory vaccination ordinance. The free choice issue which swayed the vote later erupted into controversy over whether quarantine was an unfair restriction of personal liberty, produced antipathy to a number of public health programs.<sup>64</sup> It resounds to our own day in attempts to keep unproven therapies on the market.

Despite the death from smallpox shortly thereafter of an Apostle and his wife—the only members on an expedition to Mexico to refuse vaccination—and a reaffirmation by the First Presidency several years later of its endorsement of vaccination, it was to be decades before most Utahans availed themselves of the tool which has essentially eliminated smallpox from the earth. Recalcitrance among mid-twentieth century Mormons in “keeping up to date” with their immunizations is probably as much attributable to the apathetic view taken by most Americans to this necessity as it is to their unique medical heritage, but one still finds anti-immunization pamphlets in Utah health food stores beside the LDS herbalist books. The official church stance remains clearly in line with modern medical thought, and periodically the First Presidency reissues its recommendation that members insure that they receive recommended immunizations.<sup>65</sup>

By the 1920s most Mormons were convinced that church leadership was correct in espousing the value of modern hospitals and scientific medicine—with the possible exception of smallpox immunization. Address-



ing in part those who remained unconvinced, Apostle James Talmage wrote,

But our belief in the gift of healing does not mean that we neglect all efforts which we know to be of good toward restoration to health. Some have charged us with inconsistency because we as a Church preach and solemnly avow that there is in operation today that gift of God known as the gift of healing, and yet we maintain hospitals, and foster the development of medical knowledge and surgical skill. I say some have charged us with inconsistency, for they say: 'If you believe in the gift of healing, what is the need of doctors, what is the need of surgeons, why build hospitals?' Because we know that 'there is a law irrevocably decreed in heaven, before the world was, and when we attain any blessing it is by obedience to that law upon which it is predicated': and the law is, in the instance under consideration, that we shall do all we can of ourselves. . . . We must do all we can, and then ask the Lord to do the rest, such as we cannot do. Hence we hold the medical and surgical profession in high regard. . . . When we have done all we can then the Divine Power will be directly applicable and operative.<sup>66</sup>

Note here that the initial step is no longer necessarily the priesthood blessing. Only after we have done "all we can" medically, in this view, will the "Divine Power . . . be . . . operative."

#### THE RESIDUAL PROBLEM

The past decade has seen a remarkable revival of both old and new "natural cures," often in concert with "health food" and megavitamin exponents. Strong lobby groups are demanding removal of federal drug regulations that limit the use of unproved drugs and methods, usually under the banner of "freedom of choice."<sup>67</sup> This appeals to many Latter-day Saints grounded in a love of free agency and plays into the hands of LDS herbalists who argue that government restrictions are akin to Satan's pre-existent plan to force "good" choices on man.

Making free choices medically, however, is now a task requiring considerable pharmacologic and biostatistical expertise. A valid study of a medicine's effectiveness and safety requires that many patients participate in a "controlled" experiment—in which a totally inert pill identical in appearance to the medicine being tested is given, unknown to both doctor and patient, to half of the people in the study. This is essential because of the wide variation in the natural course of diseases, and because of the remarkable effectiveness of just "taking a pill" (the placebo response) in decreasing symptoms.<sup>68</sup> Testimonials of isolated cures from a particular remedy are so unreliable as to be useless, except as suggestions for further critical study. The herbalist typically claims that his unorthodox methods are "proved" by his anecdotal experiences, but virtually any treatment (including the heroic therapies of 1820!) can be "proved" this way.<sup>69</sup> While herbalists are notoriously unwilling to subject their remedies to critical scientific validation, many herbs, proved to be safe and effective, have been readily accepted by

the orthodox medical world, and great numbers of medicines originally of plant origin but now synthesized for economy and purity, are in common use.<sup>70</sup> It is important to emphasize that herbs *are* drugs, and cannot be regarded as safe without valid proof.<sup>71</sup> (Three people died of herb poisoning in Utah in 1976).

In any case, coast-to-coast mass meetings are being held by the herbal lobby groups with a genuine revivalistic fervor, spiced with testimonials in a tone attractive to faithful Mormons for good and obvious reasons (and reminiscent of the Herbal Councils of Health). Mormon herbalists and vegetarians are starting to publish, heavily quoting leaders of the church's first fifty years.<sup>72</sup> By bringing the evangelism of herbalistic, anti-medicine philosophies out from the underground, they are touting, to a larger Mormon audience, unorthodox herb medicine as a basic principle of LDS theology. They attempt to ease the peculiarity of their methods by noting that Mormons, after all, are a "peculiar people," and this is characteristic of all God's methods.

As a result of these enterprises, and also pleas from the American Cancer Society to clarify church position, the arguments were reviewed by church health officials and the First Presidency.<sup>73</sup>

On 19 February 1977 an editorial in the *Church News* appeared, quoting James E. Talmage as above, and adding,

The Church, of course, deplors the patronage of health or medical practices which might be considered ethically or legally questionable. People with serious illnesses should consult competent physicians, licensed under the laws of the land to practice medicine . . .

After reaffirming faith in the power of the priesthood to heal, the article continued,

our belief in the divine power of healing should in no way preclude seeking competent medical assistance.

Concerned about the dangers both physically and spiritually of the herbalist attempts to tie onto the church, a few months later the First Presidency commissioned a member of the Twelve to write another *Church News* editorial, which appeared 18 June 1977. Health officials were informed by the office of the First Presidency that it represented official church position.<sup>74</sup> In the editorial, the Church "officially" disclaimed "fads . . . advocated under the guise of the Word of Wisdom by unauthorized persons with unwarranted claims respecting health." It also "completely" disclaimed "any sponsorship or endorsement of such teachers, remedies, foods or fads" that "use other phases of religion . . . to give further appearance of credibility to their projects." The editorial went on to reaffirm once again the Mormon view of medical care:

To refuse to accept assistance from the highly skilled men and women now available may be to reject the very help that could save a life. Some patients are known to have died from diseases which 'nature remedies' could not relieve but which proven medical practices could have cured . . .

Is it wise to turn our backs upon medical advances and place our hopes and our lives in the hands of unproven practitioners? Would we reject other forms of true scientific advancement? Would we do without telephones, radios or airplanes? Then why should we reject proven health care provided as a result of years of research?

Latter-day Saints may well follow the prophets in matters of health as in other things. Leaders of the Church accept sound advice from acknowledged professional men. They themselves submit to surgery and other forms of treatment as needed, and their lives have been extended as a result. Is not their example worthy of emulation?<sup>75</sup>

The Mormon position today is clear. To emphasize it even further, Mormons who use ecclesiastical influence to promulgate unproven methods have been put on notice that their standing in the church would be jeopardized.<sup>76</sup> This injunction may seem severe until one realizes that the basic premise of modern LDS herbalist arguments are precisely those that have led to "fundamentalist" apostasy in the past. The origin of the apostate cults of Mormonism is precisely this issue: an inflexible adherence to the old despite new prophetic direction. Herbalist fundamentalism fits the mold.

## CONCLUSION

Has prophetic counsel on health really changed? Joseph Smith and Brigham Young advised the Saints to avoid the unproven and dangerous methods of their day, rather to stay with those remedies experience had shown to be safer. The counsel today is the same. What has changed are the medicines and techniques from which to choose and the sophistication with which they are evaluated.

Faced with the polemics of the various health and botanic reform movements, Joseph Smith chose the herbal camp, as both his background and the Mormon Scriptures would lead one to expect. It could be argued that since the "puke 'em, purge 'em, sweat 'em" methods of Samuel Thomson were really a botanic form of heroic medicine (substituting toxic lobelia for toxic calomel), even safer approaches might have been chosen (homeopathy with its totally ineffectual doses,<sup>77</sup> or staying strictly with the Health Reform Movement principles in the Word of Wisdom). In practice Joseph and Brigham appear to have been "simmered-down botanics," advising considerable moderation and wisdom in the use of herbal drugs. Their bias against the heroic physicians of their day has been scientifically vindicated.

The influential Thomsonian stalwarts, by establishing the herbal Councils of Health, had far reaching and long lasting influence on Mormon medical traditions, including the anti-orthodoxy sentiments persisting to our day.

With the advent of reliably proven medicines, the prophets have demonstrated considerable adaptability, clearly condemning unproven methods even if used by our remarkable forebears. Latter-day Saint herbalists, like Samuel Thomson, often claim their methods are "God's medicine vs. man's medicine." Herbs, however, frequently contain dangerous drugs, and the scientific method is our primary means of determining *which* plant has been "provided for man's use." It is misplaced faith, dangerous spiritually as well as medically, that holds strictly to dead counsel.

Illness, from which few escape, instills a need for both medicine and religion. For centuries the priest and physician were one and the same, and perhaps with good reason, mankind still has some difficulty separating them.

*The author wishes to thank Lester Bush for his helpful suggestions in the preparation of this article.*

#### NOTES

<sup>1</sup>See for example John Heinerman, *Joseph Smith and Herbal Medicine* (Manti, Utah: Mountain Valley Publishers, 1975). This widely selling book perhaps best brings together many of the quotes used by herbalists, and demonstrates how they link faith healing with herbalism (e.g. Chapter 8), and the use of *unproven* herbs with trust in God and the prophet Joseph Smith (e.g. pages 17 and 24).

<sup>2</sup>L. Kay Gillespie, "Cancer Quackery in the State of Utah" (1976) p. 59 (prepared privately for the Utah Department of Social Services, Office of Comprehensive Health Planning.)

<sup>3</sup>*Ibid.*, p. 60–61.

<sup>4</sup>*Ibid.*, p. 62.

<sup>5</sup>Allistair Cooke, address to the College of Physicians of Philadelphia, 8 July 1976. Wesley's *Primitive Physick* went through 23 editions during his lifetime, with many more later including 7 editions in America between 1764–1839.

<sup>6</sup>Lucy Mack Smith, *Joseph Smith and His Progenitors*, (Salt Lake City, Improvement Era Press, 1902) Chapters XI, XV and XVI.

<sup>7</sup>Leroy S. Wirthlin, "Nathan Smith, Surgical Consultant to Joseph Smith" *BYU Studies* (Spring 1977) 17 (3):319–37.

<sup>8</sup>Donna Hill, *Joseph Smith, the First Mormon* (Garden City, N.Y.: Doubleday, 1977) p. 43.

<sup>9</sup>Lucy Mack Smith, *Joseph Smith*, pp. 47–49.

<sup>10</sup>The Jewish pharmacopoeia of Christ's time consisted of poppy (opium) leaves soaked in wine (for pain), lott (a sedative from opium), mandragora (from mandrake), various unguents and eye solutions, myrrh and spikenard smoke (for inhalation by asthmatics), and leeches (for swelling and hemorrhages). *Physician's World*, Dec. 1974, pp. 22–23. Old Testament passages about herbs are largely *descriptive*, rather than *prescriptive*.

<sup>11</sup>Mandrake was anciently thought to be an aphrodisiac because of the masculine-figure shape of its forked roots and the irritation its podophyllin-like residue causes on the bladder (though scriptural, its use can hardly be considered divinely inspired).

<sup>12</sup>Sylvester Graham, *The Aesculapian Tablets of the Nineteenth Century* (Providence: Weedon and Cory, 1834), p. vii.

<sup>13</sup>*Journal of Health* (Philadelphia, 1830), Vol. 1, pp. 7, 13, 19, 36, 40, 98, 136, 154, 157–60, 219–20, 297–329. Ellen G. White, founder of the Seventh Day Adventist Church and primarily responsible for Battle Creek, Michigan becoming the center of Popular Health reform activity, was perhaps the leading evangelist of vegetarianism as a divine principle of health.

<sup>14</sup>The meat question is still being asked, with almost any opinion finding some scriptural support. The Lord's direction regarding whether to eat meat varied from Adam, who was vegetarian (Genesis 1:29–30); to Noah, when eating flesh was approved (Genesis 9:3–5); to Moses who ate only "clean" animals (Deuteronomy 14:3–21 and Leviticus 7:22–3 restricting goats and sheep); to Paul where "every creature" was approved (I Timothy 4:1–5). Direction in our dispensation states "whoso forbiddeth to abstain from meats . . . is not ordained of God" (D&C 49:18–21). Recently, some have questioned whether meat should be eaten in the summertime. The comma inserted in 1921 by James E. Talmage after "used" in D&C 89:13 at first seems to exactly reverse the original intent of "And it is pleasing to me that they [beasts & fowls] should not be used only in times of winter or of cold or famine." However, Hyrum Smith, himself a hearty meat eater, clearly interpreted the (unpunctuated) verse as it presently stands, with the comma (*Times and Seasons* 3:799–801).

<sup>15</sup>For the discussion of the Health Reform Movement and Temperance influence on Mormon health beliefs see Paul H. Peterson, *An Historical Analysis of the Word of Wisdom* (BYU Master's Thesis, 1972) pp. 6–20.

<sup>16</sup>*The Far West Record*, 31 August 1834 (Church Archives) Cf. *History of the Church of Jesus Christ of Latter-day Saints, Period I*, ed. B. H. Roberts (Salt Lake City, 1902–12) 4:11.

<sup>17</sup>*Ibid.* 4:414 (5 September 1841).

<sup>18</sup>*Ibid.* 5:356–57 (13 April 1843).

<sup>19</sup>*Ibid.* 6:59 (15 October 1843).

<sup>20</sup>Robert T. Divett, "Medicine and the Mormons," *Bulletin of the Medical Library Association* 51 (1):2–3 (January 1963).

<sup>21</sup>"Journal of Priddy Meeks," *Utah Historical Quarterly* 10:199–200 (1942). This entire issue of the *Quarterly* is devoted to pioneer medicine, and offers excellent insights to the Saints' attitudes.

<sup>22</sup>Nauvoo's health problems also led to other rather unusual practices. These included the baptizing for health both in the Mississippi river and in the new temple font, the blessing with oil of animals (often with good results), sisters administering to the sick by laying on of hands, and the setting apart by Joseph Smith of herbal physicians and midwives as a calling in the church. See for examples *History of the Church* 5:167–68; *BYU Studies* 18 (2):229–31, *California Folklore Quarterly* 3:103–4, *Utah Historical Quarterly* 10:34–36 (cf. D&C 31:10)

<sup>23</sup>*History of the Church* 5:366 (19 April 1843).

<sup>24</sup>As Divett shows (this issue) there were a few herbal black sheep as well, such as Sampson Avard, who formed the secret Danite society, and Isaac Galland who manipulated messy land deals in the name of the church. (See Leland Gentry, "The Danite Band of 1838", *BYU Studies* 14 (4):421–50 (Summer 1974)

<sup>25</sup>*Times and Seasons*, 2:404 (1 May 1841).

<sup>26</sup>Sgt. Daniel Tyler, *A Concise History of the Mormon Battalion in the Mexican War, 1846–1847*. (Glorieta, New Mexico: Rio Grande Press, 1969 [1881]), p. 146.

<sup>27</sup>*Ibid.*

<sup>28</sup>*Ibid.* pp. 146–47.

<sup>29</sup>J. V. Long, *Report of The First General Festival of the Renowned Mormon Battalion* (St. Louis, 1855). p. 33.

<sup>30</sup>The U.S. Census year ending June 1850 reports the Utah Mormons had "one death in every 48 persons, the highest of all states and territories except Louisiana."

<sup>31</sup>"Journal of Priddy Meeks" *Utah Historical Quarterly* 10:178–79 (1942).

<sup>32</sup>See for example J. C. Alter, "The Councils of Health," *Utah Historical Quarterly* 10:37–39 (1942) and Mrs. B. G. Ferris, *The Mormons at Home*, p. 199.

<sup>33</sup>From Phyllis Richardson, "Thomsonian Influences in Early Mormon Utah History" p. 14 (unpublished paper, Church archives).

<sup>34</sup>*Phineas Richards Journal*, 30 March 1851 and 3 September 1851.

<sup>35</sup>Richardson, "Thomsonian Influences," p. 13. <sup>36</sup>*Deseret News*, 24 July 1852.

<sup>37</sup>Samuel Thomson, *New Guide to Health; or Botanic Family Physician, Containing a Complete System of Practice, on a Plan Entirely New . . .* (Boston, 1835), pp. 27–34.

<sup>38</sup>The curious paradox is that cinchona (quinine) was initially introduced over the opposition of European physicians by a group of religious herbalists and one of the most fascinating quacks of all time (Robert Talbot)—see the story in Norman Taylor, *Plant Drugs that Changed the World*, (Dodd, Mead and Co., N.Y. 1965), pp. 82–86. Had quinine been available, Europeans likely would have entered Africa centuries earlier, and the history of the Roman Empire might be quite different.

<sup>39</sup>*Deseret News*, 11 April 1855.

<sup>40</sup>Richardson, "Thomsonian Influences," p. 20.

<sup>41</sup>*Journal of Discourses (JD)* 4:24–25.

<sup>42</sup>*JD* 14:225–26.

<sup>43</sup>Many plant drugs from the allopathic (orthodox) doctor's bag are still widely used: foxglove (digitalis), snakeroot (reserpine), opium derived narcotics, datura (atropine, scopolamine), senna (laxative), Ephedra (ephedrine), Dubosia trees (Belladonna), casara, etc. Even aspirin is a plant drug, derived from the white willow (used anciently for arthritis).

<sup>44</sup>Frederich W. A. Seiturner first isolated morphine from opium in 1803. Others came quickly, e.g., quinine from cinchona bark in 1820, caffeine from coffee (1820), atropine from datura leaves (1833) ephedrine from ephedra (1887) etc.

<sup>45</sup>Richard Daines "Heroes and Horse Doctors: Medicine in Cache Valley 1857–1900" in *Cache Valley—Essays on Her Past and People*, ed. Douglas Alder (Logan: Utah State University Press, 1976), p. 71.

<sup>46</sup>Lester Bush, "Brigham Young in Life and Death; A Medical Overview" *Journal of Mormon History*, 5(1978):94–95.

<sup>47</sup>*Ibid.*

<sup>48</sup>Daines "Heroes and Horse Doctors," p. 71.

<sup>49</sup>Gene Sessions, *Mormon Democrat—The Religious and Political Memoirs of James Henry Moyle*, (Salt Lake City:1975) p. 11.

<sup>50</sup>Bush, "Brigham Young," pp. 92–103. In addition to Young and Anderson, Brigham Young was attended at his death by Drs. Joseph and Denton Benedict. He officially died of "cholera morbus and inflammation of the bowels"—later considered by Seymour Young to be a ruptured appendix (*Utah Historical Quarterly* 10:48). Some aspects of the clinical picture are peculiar for that diagnosis, but in any event he suffered great pain with bowel distension causing breathing difficulty, requiring over nine hours artificial respiration.

<sup>51</sup>This first church sponsored hospital was located on Fifth East between South Temple and First South streets in Salt Lake City, and contained between 40 and 50 beds. It closed in 1890 for lack of funds. St. Marks (1872) and Holy Cross (1875) Hospitals had been in operation by "the gentiles" earlier (with Seymour Young on the staff of Holy Cross Hospital). The first hospital in the territory was actually opened in 1852 by "Doctor" Ezra Williams, a Thomsonian herbalist, in his home at 44 East North Temple, where the LDS Church Office Building now stands.

<sup>52</sup>Robert T. Divett, "Utah's First Medical College," *Utah Historical Quarterly* 31:51–59. John C. Bennett had previously been involved in establishing several unethical dollars-for-diploma medical schools.

<sup>53</sup>See for example Heinerman, *Joseph Smith*, p. 73–74. He compares the absorption of modern medicine by church leaders to their establishment of ZCMI because of the clamor for eastern gentile goods.

<sup>54</sup>*Juvenile Instructor* 28:669–70 (1893). It is of note that modern physicians are again becoming more sensitive to the role of faith in legitimate healing. See for example "Religion and Medicine Draw Closer", *Medical World News* (Dec. 25, 1978) pp. 26–29. Also summarized there

are two "controlled" studies of the efficacy of prayer in healing. C. S. Lewis notes that such an experiment is impossible, however, since one cannot *genuinely* pray for relief of suffering of one group and have no interest in the relief of those in the control group for whom supposedly no prayers are uttered.

<sup>55</sup>e.g. Lorenzo Snow *JD* 23:189–95 (1882); George Q. Cannon, *Deseret Weekly News* 49:449–51 (1894); also *Millennial Star* 50:194–95 (1888).

<sup>56</sup>*Improvement Era*, Vol. 5 (June 1902) p. 624.

<sup>57</sup>For example, an editorial by George Q. Cannon in the *Juvenile Instructor* 28:758–59 (1893) calls for filtering water to prevent typhoid.

<sup>58</sup>*Deseret News*, 13 August 1856.

<sup>59</sup>Joseph A. Morrell, *Utah's Health and You*, (Salt Lake City: Deseret Book 1956) pp. 99, 179, 182.

<sup>60</sup>Editorial *Deseret News*, 29 June 1870.

<sup>61</sup>*Woman's Exponent*, 15 August 1878.

<sup>62</sup>*Deseret News*, 17 May 1901.

<sup>63</sup>*Salt Lake Tribune*, 13 January 1901. The same claims are still quoted today in pamphlets found on the shelves of Salt Lake City health food stores.

<sup>64</sup>Morrell, *Utah's Health*, pp. 179–82.

<sup>65</sup>*Ensign*, July 1978, p. 79. Also Letter to Stake, Ward and Mission Leaders dated 28 September 1976.

<sup>66</sup>*Deseret News*, 17 December 1921, (sec. 4, p. 11). Quoted in editorial, *Church News*, 19 February 1977.

<sup>67</sup>Largely stimulated to action by the laetril controversy, powerful pressure groups like the National Health Federation, the Committee for Freedom of Choice in Cancer Therapy, and the International Association of Cancer Victims and Friends are holding nationwide rallies, producing movies and advertising, and writing many books.

<sup>68</sup>The placebo effect is probably not an imagined one. Recent neurochemical research has demonstrated chemical mediators ("endorphins" or "encephalins"), released from the brain by placebo administration, that have potent pain relief effects. The placebo effect can be blocked by narcotic antagonist drugs.

<sup>69</sup>As an example, lobelia (Samuel Thomson's favorite cure) has been prescribed in herbal guidebooks for heart attacks. [e.g. R. Swinburne Clymer, *Nature's Healing Agents*, (Dorrance and Co., 1963)]. Despite the fact that lobelia's nicotine-like action can be deadly in the heart attack setting, yet undoubtedly, somewhere an anecdotal case improved at bedrest *despite*, not because of the lobelia. Such is anecdotal proof.

<sup>70</sup>e.g. A survey by R. A. Gosslein and Co. found 47% of the new medicines prescribed that year to be of natural origin.

<sup>71</sup>Unorthodox herbal guidebooks back to Thomson claim to "eschew all poisons" (e.g. Clymer, *Nature's Healing*) yet advise Periwinkle (powerful bone marrow toxin), *Lobelia* for epilepsy (when it is known to cause convulsions in full doses), *mistletoe tea* for sedation (contains viscotoxin that can produce anemia, hepatic and intestinal hemorrhage), *shave grass* or *horsetail tea* as a diuretic (contains equisetine, a severe nerve toxin, plus nicotine), *sassafras tea* advocated for arthritis (contains Safrole, a liver-cancer causing agent and potent inhibitor of the metabolism of the other drugs), and pennyroyal to induce menstruation (has caused deaths from kidney and liver toxicity). *Cayenne pepper*, given for heart failure and intestinal disorders can aggravate both. *Golden Seal*, the herbal panacea that replaced lobelia, has striking effects on the cardiovascular system, but if taken in high dose, the effects are directly opposite to those in low dose; it has been pushed by herbalists for treating meningitis and diphtheria, likely to be lethal without orthodox care. *The point is that unproven herbs are not benign "foods," but drugs of unreliable and potentially dangerous effects.* Even vitamins in the huge doses "orthomolecular" practitioners advocate can be dangerous. (See Victor Herbert, "Facts and Fictions about Megavitamin Therapy," *Resident and Staff Physician*, December 1975 pp. 43–50). Other herb

dangers are discussed in "Toxic Reactions to Plant Products Sold in Health Food Stores," *The Medical Letter* 21 (No. 7):29-31 (6 April 1979) and "Medicinal Teas-Boon or Bane," *Drug Therapy* (February 1977) pp. 178-88.

<sup>72</sup>Including John Heinerman, *Joseph Smith*, also *Joseph Smith and Natural Foods* (Manti, Utah: Mountain Valley Publishers, 1976); Doris T. Charriere, *Hidden Treasures in the Word of Wisdom* (Salt Lake City: Hawkes Publishing Co., 1978) Part 2: Ch. IV "Herb Medicine"; Kristine Hughes *Other Words of Wisdom* (Provo, Utah: Biworld Publishers, 1975).

<sup>73</sup>President Spencer W. Kimball was not unaware of the dangers. His sister had died of devastating facial cancer after prolonged delay of medical care because of her trust in ineffective naturopathic remedies (alluded to in A. E. and E. L. Kimball, *Spencer W. Kimball*, Salt Lake City: Bookcraft, 1977) pp. 262-63.

<sup>74</sup>Personal Communication from Isaac Ferguson, Church Director of Personal and Health Welfare.

<sup>75</sup>Exemplifying this position is President Spencer W. Kimball, who sought skilled medical care following powerful apostolic blessings promising control of his serious health problems. The physicians' skills became a large part of the means of implementing those blessings, his doctors recognizing divine direction in their medical decisions. Kimball, *Spencer W. Kimball*, pp. 389-90, 395-99.

<sup>76</sup>Gillespie, "Cancer Quackery," p. 58. At least one bishop has been excommunicated for preaching the LDS herbal philosophies, and channeling ward members into unorthodox care against prophetic counsel.

<sup>77</sup>An 1886-87 study at Cook County Hospital (Chicago) demonstrated that by that date orthodox medical treatment (non-surgical) had become better than homeopathic therapy (essentially supportive, with no effective medicines). See Martin Kaufman, *Homeopathy in America* (Baltimore, Johns Hopkins Press, 1971) pp. 150-51. Today otherwise dangerous herbs are often marketed as "safe" in health food stores by providing them in doses so small as to do nothing but provide a placebo—a homeopathic dose.



# *A Peculiar People: “The Physiological Aspects of Mormonism 1850–1975”*

LESTER E. BUSH, JR.

IT WAS NEARLY SUNSET when young Dr. Roberts Bartholow passed through Salt Lake City. Having the “good—or ill—fortune to be one of the expeditionary corps, dispatched in the summer of 1857 to Utah,” Bartholow had weathered “a winter of sore privations” with the Fifth Army “at Bridger’s Fort.” Now, late in June 1858 he had “the doubtful satisfaction of marching through the deserted city of Great Salt Lake.” Brigham Young, he later recalled, “to give an appearance of reality to the insurrection,” had “influenced his followers to abandon their homes and move to the southward.”<sup>1</sup>

A satisfactory resolution to the “Utah War” had been negotiated some days earlier, so it was not long before “the great Mormon herd” began to return.

For many days a vast dust cloud . . . marked their progress. On foot, on horseback, in wagons, with cattle and horses and all the movable paraphernalia of their farms, the Mormon host journeyed northward. On our way to the post of Camp Floyd, we passed through the whole concourse.

As a result, Bartholow wrote, we had an “opportunity as could not occur again of seeing the material of which the Mormon nation is constituted.”<sup>2</sup>

Bartholow’s observations on this group of refugees, later included in a report on the “physiological” aspects of Mormonism, received wide distribution. First published among the Senate Documents as the Surgeon General’s Statistical Report (1860), it was almost immediately reprinted in medical

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LESTER E. BUSH, JR., a physician, is Associate Editor of *Dialogue*. His “Brigham Young in Life and Death: A Medical Overview” *Journal of Mormon History* 5 (1978): 79–103 won the *Mormon History Association* “Best Article” prize for 1978.

journals all over the United States, eventually finding its way into the *Medical Times & Gazette* of London and into the popular nonmedical periodical *DeBow's Review*.<sup>3</sup>

After this first wave of attention, a derivative report disingenuously similar to that of Bartholow but ostensibly prepared by another army surgeon, Charles G. Furley, was published in *The San Francisco Medical Press* (1863), from which Bartholow-like observations were reprinted widely.<sup>4</sup>

Several years later Bartholow reiterated his initial report in *The Cincinnati Lancet and Observer* (1867), a short extract of which was reprinted by *The Boston Medical and Surgical Journal*. Bartholow's indirectly related observations on the inadequacies of Mormon medicine were also carried in brief notes in both the *British Medical Journal* and the *American Medical Times*. Roberts Bartholow, therefore, may be credited as a major influence in the shaping of early medical thinking on "Mormon physiology."<sup>5</sup>

### CURRICULUM VITAE

An 1852 graduate of the distinguished Medical Department of the University of Maryland, Assistant Surgeon Bartholow had passed the stiff competitive examination required of army doctors "with the highest rank." The Utah expedition was his first major assignment. From Camp Floyd, in Utah, he went to Fort Ridgely, Minnesota and then back to Fort Union, New Mexico. During the Civil War, he served in hospitals in New York, Baltimore, Washington, D.C. (where he wrote the official *Manual of Instructions for Enlisting and Discharging Soldiers*) and Nashville, Tennessee. Later a Professor at the Medical College of Ohio, then Professor, Dean and Professor Emeritus at Jefferson Medical College, Bartholow became "one of the foremost physicians of his time." When ill health forced his retirement at the age of sixty-one, he had garnered many prizes as a medical essayist, an honorary doctorate of laws, and fellowship in the College of Physicians of Philadelphia, the American Philosophical Society, the Royal Medical Society of Edinburgh and the Society of Practical Medicine in Paris. He was also cofounder and president of the American Neurological Association, editor of several medical journals and author of many influential medical texts.<sup>6</sup>

However promising this future, the reality of 1858 was considerably less. To date Bartholow's army experience had been "professionally monotonous," with little opportunity to exercise his skills. His entertaining and informative quarterly "sanitary reports" to the Surgeon General were therefore largely taken up with speculative expositions on the etiology of disease and detailed descriptions of the local "medical topography"—i.e., climate, geology, flora and fauna. During the winter of 1857–58, he wrote about the Utah and Snake Indians in the vicinity of Fort Bridger, whom he found "very debased" and "having none of the refined sentiments attributed to Indian heroes in Hiawatha." He also discussed the mountain men and traders who, like their red brethren, failed to live up to "the reports of poetic explorers." Such digressions revealed the young surgeon as an energetic observer—and, like so many of his contemporaries, a dedicated "moral physiologist."<sup>7</sup>

The popular dictum that physical degeneracy was a direct—and inheritable—consequence of moral depravity was unmistakably central to Bartholow's concept of disease. Excepting those recruits who were "too young to endure the fatigues and privations incident to a military life," there was one main cause of the disease "constantly operating" among the troops: the men were "broken down by habits of dissipation, by syphilis, [and] by the practice of masturbation, &c." As an indirect illustration, Bartholow later discussed the first few cases of scorbutus [scurvy—a vitamin C deficiency] encountered on the expedition:

A great variety of causes, apparently opposite in character, are, *ceteris paribus*, capable of producing scorbutus. The abuse of alcoholic stimulants, and that filthy narcotic, tobacco, a want of cleanliness, indolence, and exhaustion from hard labor, mental despondency, and irregular, ill-prepared food, combine in most cases in the production of the scorbutic cachexy. Upon referring to the previous history of these scorbutic men, a sad catalogue of evil habits is presented—most prominent of all, the long and continued and excessive use of strong drink; ceaseless tobacco chewing. The men belong to that interesting class, heretofore not infrequently mentioned, old, broken-down, and inherently worthless recruits.<sup>8</sup>

Fortunately many of these deleterious influences could be eliminated, given the proper circumstances, and when "whiskey and civilization were left behind," the health of the command began to improve. It was impossible to escape all evil habits, however, and to Bartholow masturbation and sexual excess ["several teamsters . . . not submitting to strict military rule, were prevailed upon by the charms of filthy squaws"] were a more pernicious cause of disease than the other vices.<sup>9</sup> His first major treatise after leaving the army was *On Spermatorrhoea* (1866), to which he ascribed everything from weakness in the legs, "palpitation" of the heart and gastro-intestinal disorders, to double vision, epilepsy and dementia. His description of the appearance of a chronic masturbator as a person of "pale and sallow tint of skin, . . . a dark circle around the orbits; dilated and sluggish pupils; lustreless eyes" and with a "haggard, troubled, furtive expression" will be seen to have some parallels with this early expedition.<sup>10</sup>

#### POPULAR PERSPECTIVE

In addition to his physiologic philosophy, Dr. Bartholow no doubt brought to his survey of the returning Mormon "herd" some more specific background data. By 1858 a fair amount had been written about the peculiar people and their relic of barbarism. For nearly a decade overland travelers had reported their experiences in Utah to various newspapers and, occasionally to medical journals. Initially such reports were almost entirely free of commentary on Mormon health and physiognomy. The Saints, if having a "tinge of fanaticism," most often had been described as "orderly, well-disposed, civil and intelligent, industrious, hospitable," and "verry [*sic*] social"—just "another striking demonstration of the indefatigable enter-

prise, industry and perserverance, of the Anglo-Saxon race."<sup>11</sup> As Dr. I. S. Briggs of the Ithaca and California Mining Company wrote to *The Boston Medical and Surgical Journal* in 1849, "they are bone of our bone and flesh of our flesh."<sup>12</sup>

A few travelers, aghast at the discovery of Mormon belief and practices, predicted that if something did not change the Mormon "course, the world's history will not furnish a parallel of degradation and wretchedness."<sup>13</sup> Among the earliest observers to suggest that such degradation might already be having an effect was Benjamin Ferris, a federal appointee who spent an unhappy winter among the Mormons in 1852–53 as Secretary of State of the Territory of Utah. Writing the following year about *Utah and the Mormons*, he characterized Mormon children as "subject to a frightful degree of sickness and mortality,"—"the combined result of the gross sensuality of the parents, and want of care toward their offspring."<sup>14</sup> This observation, if not the interpretation he applied, was corroborated by the 1850 census. Utah's death rate was 21 per thousand, nearly 50% higher than the national average and second only to Louisiana among all reporting states and territories. Over a third of the deaths were reported to be among children under the age of five. Not long after, the census report was invoked in another work on *Mormonism: Its Leaders and Designs* (1857) by ex-Mormon John Hyde. There was indeed a "fearful mortality among the Mormon children" he wrote; Salt Lake City was "nearly as unhealthy as New Orleans."<sup>15</sup>

John Hyde made another charge, shortly to be very popular but not so clearly supported by the census. Among the Mormons the "proportion of female to male births, is very much in favor of the female sex." The reverse, he said, was typically the case in "monogamic" countries, but the contrary Mormon experience was entirely predictable "not only from facts observable in all polygamic countries, but also from well-known physiological laws." Moreover, Hyde had "observed, very frequently, that the more wives a man has, the greater the proportion of female to male children."<sup>16</sup>

The theoretical basis for Hyde's remarks derived from the widely accepted observations on middle eastern polygamy published a century earlier by Montesquieu.<sup>17</sup> The basis in fact is not entirely clear. The fact that in Brigham Young's family at this time girls outnumbered boys two to one is relevant. Yet while by chance there was a preponderance of female births in some Mormon families or communities, the census had revealed no striking overall sex disparities. The ratio of males under age 1 to females under age 1 actually favored the males (104:100). If Hyde and those who followed him based their claim on any real-life enumeration, it may have been the male-to-female ratio of those born in Utah and still living there in 1850 (i.e., born within the previous two years or so). By this measure the females were favored, with a M:F ratio of 100:111. In either event, extrapolating birth ratios from those still alive in 1850 was fraught with error. In addition to the massive under-reporting which characterized the territorial census at this time, no consideration is given to differential death rates (by sex) or potential inequalities among the immigrants.<sup>18</sup>

Ex-Secretary of State Ferris levied a second charge, less "physiologic" by twentieth century standards, but relevant at the time: "Nowhere out of the 'Five Points' in New York City can a more filthy, miserable, neglected-looking, and disorderly rabble of children be found than in the streets of Great Salt Lake City." While most other visitors during these early years appear not to have felt the children worthy of special comment, one other who did was Lt. J. G. Gunnison, the topographical engineer who wintered with the Mormons in 1849–50. In his generally sympathetic *The Mormons . . . in the Valley of The Great Salt Lake* (1856), he recounted "in all candor" that "of all the children that have come under our observation, . . . those of the Mormons are the most lawless and profane." Acknowledging that "circumstances connected with travel, with occupations in a new home, and desultory life, may in part account for this"—factors which no one thought to associate with the mortality rates—Gunnison nevertheless felt this proclivity to give insight into "the quality of the fruit produced by the doctrines."<sup>19</sup>

Following Gunnison's lead, John Hyde minimized the importance of seemingly relevant factors in his own hyperbolic picture of Mormon boys:

cheating the confiding, is called smart trading; mischievous cruelty, evidences of spirit; pompous bravado, manly talk; reckless riding, fearless courage; and if they out-talk their father, outwit their companions, whip their school-teacher, or out-curse a Gentile, they are thought to be promising greatness, and are praised accordingly. Every visitor of Salt Lake will recognize the portrait, for every visitor proclaims them to be the most whisky-loving, tobacco-chewing, saucy and precocious children he ever saw.<sup>20</sup>

About the time John Hyde was leaving Mormonism, Frenchman Jules Remy traveled to Salt Lake City to make some observations of his own. He, too, reported that "births of girls exceed those of boys, a result . . . in perfect conformity with what has been noticed amongst Musselman polygamists." Additionally, "in spite of the salubrity of the climate, the mortality among children is greater . . . than in many less healthy countries." And, as also previously noted, "the Mormon children are far from being models of candour and innocence," a circumstance attributed by Remy to bad examples, inadequate schooling and insufficient parental time and capacity. In particular, the "moral condition of the male children [seemed] to present some unpleasant features," but this was the exception in "a society in which public order, pure morality, and external decorum" were "striking."<sup>21</sup>

It is clear from some of his remarks that Dr. Bartholow was familiar with at least some of these contributions to the fledgling field of Mormon anthropology. He surely must also have been sensitized to the general subject by his conversations at Fort Bridger (Camp Scott) during the winter of 1857–58 with Dr. Garland Hurt, the anti-Mormon Indian Agent recently fled from Utah.<sup>22</sup>

*THE NEW RACE*

What then was Bartholow's impression as he passed by the "concourse" of Mormonism enroute to Camp Floyd? The "appearance and opinions" of the procession of returning refugees "were so at variance with the rest of mankind, that the first impression made on our minds was, that the Mormon people is a congress of lunatics."<sup>23</sup>

In his next quarterly sanitary report, Bartholow expanded considerably. Following the routine recitation of local topography, climate, and fauna, he proceeded to discuss "the Mormon, of all the human animals now walking this globe, . . . the most curious in every relation."

Isolated in the narrow valleys of Utah, and practicing the rites of a religion grossly material, of which polygamy is the main element and cohesive force, the Mormon people have arrived at a physical and mental condition, in a few years of growth, such as densely-populated communities in the older parts of the world, hereditary victims of all the vices of civilization, have been ages in reaching. This condition is shown by the preponderance of female births, by the mortality in infantine life, by the large proportion of the albuminous and gelatinous types of constitution, and by the striking uniformity in facial expression and in physical conformation of the younger proportion of the community. . . . One of the most deplorable effects . . . is shown in the genital weakness of the boys and young men, the progeny of the 'peculiar institution.'<sup>24</sup>

Among the more striking effects noted by Bartholow was the "impress" Mormonism made "upon the countenance." The "Mormon expression or style" was

an expression compounded of sensuality, cunning, suspicion, and a smirking self-conceit. The yellow, sunken, cadaverous visage; the greenish-colored eyes; the thick, protuberant lips; the low forehead; the light, yellowish hair; and the lank, angular person, constitute an appearance so characteristic of the new race, the production of polygamy, as to distinguish them at a glance. The older men and women, present all the physical peculiarities of the nationalities to which they belong; but these peculiarities are not propagated and continued in the new race; they are lost in the prevailing Mormon type.<sup>25</sup>

With this report Bartholow broke new ground. As noted above, after publication in the Surgeon General's *Statistical Reports*, his observations were reprinted by many other significant journals—under such titles as "Mormonism, In Its Physical, Mental and Moral Aspects," and "Hereditary Descent; Or, Depravity of the Offspring of Polygamy Among the Mormons." One version of Bartholow's report came to the attention of the New Orleans Academy of Sciences, and in December, 1860, they devoted a meeting to the subject. In addition to Bartholow's report, two other papers were read at the Academy meeting, one by "Prof. C. G. Forshey, of Texas," and the other by

the nationally prominent Dr. Samuel A. Cartwright. Most of the remarks of Forshey and Cartwright were only tangentially related, dealing with the suitability of different races for polygamy and servitude [the "European (or white race of men)" were understood to be "degraded" by both institutions]. Implicit in their comments, however, was acceptance of Bartholow's assertion that a new "race" was emerging in Utah, or at least a uniquely degraded "permanent variety."<sup>26</sup>

Dr. James Burns, another member of the Academy, voiced strong and perceptive objections to the implicit assumptions of Bartholow, Forshey and Cartwright, that there was such a thing as a "Mormon race:"

It is incredible, that, in so brief a period, has been produced a well-marked inferior 'race,' with salient facial angles, low and retreating forehead, thick lips, green areola around the eyes, gelatinous or albuminous constitution, and the other alleged characteristics. . . .<sup>27</sup>

His experience had "taught him to attribute such signs to practices utterly adverse to those of polygamy." The "green areola" could well be "chlorosis in maidens, and . . . certain other conditions in women married and unmarried." "As for the 'gelatinous or albuminous constitution,'" Burns "had never before [been] acquainted with the term, and . . . he was at a loss to guess what it can mean." Where, he asked, were the quantitative data needed to satisfy the "rigorous requirements of science." Before the case for a new race or even "only a variety" could be made, more would have to be known on the age, race, physical and mental characteristics, general habits and modes of living, average number of children and the marriage status of the mothers. Equally important would be information collected over at least a decade on the proportion of children in whom the condition was found—"these, and much more, would be necessary, for anything like scientific purposes."

*DeBow's Review* carried Burns' criticisms, along with the Forshey and Cartwright papers, when it reprinted Bartholow's report, but published skepticism appears otherwise to have been essentially nonexistent. The response of the London *Medical Times and Gazette* was probably more representative. The editors found the reports from Utah "of great value, as showing the effects which complete isolation and a gross religion, whose very essence is Polygamy, have produced on the physical stamina and mental hygiene of that saintly community."<sup>28</sup> Most of the medical journals simply presented Bartholow's account without qualification or introduction.

Meaningful quantitative measurements of the type suggested by Dr. Burns were, of course, impossible under the circumstances of western American life—in Utah or elsewhere. Territorial censuses, the closest nineteenth century approximations, were notoriously unreliable. At this point they were also unavailable. While the 1860 census had just been completed, many of its relevant findings were not published for several years. In the interim there was a growing body of first-person accounts.

New York editor Horace Greeley's overland journey in the summer of 1859 took him through Salt Lake City, and his observations were included in a book published the following year. He found the "phrenological development" of the children "in the average, bad" [this, despite "good" development in the adults], but added that he was told that "idiotic or malformed children" were "very rare, if not unknown." Regarding the preponderance of female births, "the male saints" held this "a proof that Providence smiles on their 'peculiar institution'." To Greeley the more likely explanation was the "preponderance of vigor" of young wives over old husbands.<sup>29</sup>

A year after Greeley's visit, world traveler Richard Burton, dedicated student of both polygamous societies and holy cities, arrived to make his own study. His *The City of the Saints* (1861) addressed many of the same "physiologic" questions then in vogue, but reached distinctly different conclusions. The "generally asserted" notion that juvenile mortality ranked "second only to Louisiana" he did not believe ascribable to polygamy. Regarding Ferris' claim that Mormon youth were a "filthy, miserable, and disorderly rabble," his experience was "the reverse. I was surprised by their numbers, cleanliness, and health, their hardihood and general good looks." As to John Hyde's caricature, it was "the glance of the anti-Mormon eye pure and simple. Tobacco and whiskey are too dear for children at the City of the Saints." Most of Hyde's charges were "too general . . . not to be applicable to other lands." Moreover, "a youth at many an English public school would have been 'cock of the walk,' if gifted with the merits [ascribed by Hyde]."<sup>30</sup> Thereafter the behavior of Mormon boys ceased to be a major focus of attention.

At this rather indecisive juncture, another physician chose to enter the debate. Charles C. Furley, M.D., apparently an assistant surgeon stationed with the army in California, not long before had paid a visit to Salt Lake City and felt "qualified to speak of the results of their peculiar institution, both in their social, physiological and intellectual bearings." It was, however, "chiefly as a physiologist" that he treated the subject of "The Physiology of Mormonism" in an April 1863 issue of *The San Francisco Medical Press*. The consequences of polygamy he had found to be "in every aspect of the case, hurtful and degrading:"

A marked physiological inferiority strikes the stranger, from the first, as being one of the characteristics of this people. A certain feebleness and emaciation of person is common amongst every class, age and sex; while the countenances of almost all are stamped with a mingled air of imbecility and brutal ferocity. . . . In the faces of nearly all, one detects the evidences of conscious degradation, or the bold and defiant look of habitual and hardened sensuality.<sup>31</sup>

"Without entering into minutiae," Dr. Furley offered the following "as a few of the bodily peculiarities that strike the medical man:"

Besides the attenuation mentioned, there is a general lack of color—the cheeks of all being sallow and cadaverous, indicating an absence of



good health. The eye is dull and lustreless—the mouth almost invariably coarse and vulgar. In fact, the features—the countenance—the whole face, where the divinity of man should shine out, is mean and sensual to the point of absolute ugliness.

“Nowhere” had he seen anything “more pitiful than the faces of the women here, or more disgusting than the entire appearance of the men.” But the evidences of “natural degeneracy” were even “more palpable in the youthful than in the adult population:”

It is a singular circumstance that the physiognomical appearances of the children are almost identical. The striking peculiarity of the facial expression—the albuminous types of constitution, the light yellowish hair, the blue eye and the dirty, waxen hue of the skin, indicate plainly the diathesis to which they belong. They are a puny and of a scorbutic tendency. The external evidences are numerous that these polygamic children are doomed to an early death—the tendency to phthisis pulmonalis being eminent and noticeable.

Striking yet another familiar chord, Furley closed with the observation that the “feeble virility of the male and the precocity of the female” were notorious, and that as a consequence,

more than two thirds of the births are female, while the offspring, though numerous are not long lived, the mortality in infantine life being very much greater than in monogamous society.

In the three years since Bartholow’s report was published, the new Mormon race, it seems, had lost only their green eyes. Furley’s account was nonetheless deemed newsworthy, and as previously noted his *San Francisco Medical Press* article was reprinted by a number of major medical journals in the East.<sup>32</sup>

The “pitiful” faces of the Mormon women were becoming a popular theme, in some ways replacing childhood rowdiness as a conspicuous, quasi-physiologic sign of the debasement of polygamy. While by no means a unanimous observation, a clear consensus did emerge: “handsome women and girls [were] scarce among the Mormons of Salt Lake.” The charity with which this was announced varied from William Chandless’ genteel observation in 1857 that “the collected womanhood of the city did not impress me favourably as to the amount of beauty to be found there; but perhaps the fairest stay at home . . .,” to the “array of homely women . . . who were clad as plainly as they look” noted by E. H. Derby a decade later. “Are the Mormon women pretty?” Dr. E. P. Hingston wrote after a visit in 1864, “Many have asked me the question. Pardon me, Mormon ladies, while I truthfully reply. Some are pretty enough. I regret to say they are so few.” Hingston’s traveling companion, humorist Artemus Ward, also noted “no ravishingly beautiful women present, and no positively ugly ones. . . . They will never be slain in cold blood for their beauty, nor shut up in jail for homeliness.” Even Brigham Young, wrote editor Samuel Bowles in 1865, “considering his

opportunities . . . has made a rather sorry selection of women on the score of beauty"—the fact of which Brigham is alleged to have offered as evidence that Mormon polygamy was not carnally motivated. Heber C. Kimball, his counselor and one of the most notorious polygamists because of the size of his harem, "is even less fortunate in the beauty of his wives; it is rather an imposition upon the word, beauty, to suggest it in their presence. . . ."33

Such reports never seemed to carry the moral and physiologic urgency as did the other alleged manifestations of Mormon practices. In part this was probably due to the chauvinistic ease with which the subject could be, and was, turned into a joke. Mark Twain, for example, wrote of his visit to Salt Lake City in the early 1860s that he had planned "a great reform here—until I saw the Mormon women:"

Then I was touched. My heart was wiser than my head. It warmed toward these poor, ungainly and pathetically "homely" creatures, and as I turned to hide the generous moisture in my eyes, I said, "No—the man that marries one of them has done an act of Christian charity which entitles him to the kindly applause of mankind, not their harsh censure—and the man that marries sixty of them has done a deed of open-handed generosity so sublime that the nations should stand uncovered in his presence and worship in silence."<sup>34</sup>

As ever, there were many—perhaps most—among those who passed through Mormon country who failed to find the conspicuous signs of physical degeneration by now so widely reported in the medical literature. Chester Bowles, for example, who had accompanied House Speaker Schuyler Colfax to Utah, clearly agreed with the theory behind the doctors' assertions, but could not go much beyond that:

it is safe to predict that a few generations of such social practices will breed a physical, moral and mental debasement of the people most frightful to contemplate. Already, indeed, are such indications apparent, foreshadowing the sure and terrible realization. [emphasis added]<sup>35</sup>

Demas Barnes, visiting Utah about the same time, was even more explicit: "Nothing in the apparent physical or intellectual development of the youth or children indicates immaturity, or decay." But, he added,

Notwithstanding the evident physical and moral prosperity of the community up to this time, I cannot believe but that a general system of polygamy would retard civilization and work the downfall of any advanced nation."<sup>36</sup>

These less severe judgments of the current state of Mormon physiology were not missed by Dr. Bartholow, now a professor at the Medical College of Ohio. Addressing the Cincinnati Academy of Medicine early in 1867 on "The Physiological Aspects of Mormonism," he repeated his earlier assessment. Recent visitors to Utah simply had been misled by a combination of the



BRIGHAM YOUNG THE GREAT AMERICAN FAMILY MAN.—E. Jump.

*From Wild Oats, 28 March 1872*

“beautiful scenery, the wonders of nature, and the delicious climate,” and the “wonderful results” achieved in Salt Lake City:

To see Mormonism as it is and to judge of its legitimate fruits, it should be studied in the villages and towns of other parts of the territory, where the restraints of gentile opinions do not repress the natural growth of the system. There may be seen the new Mormon population—the offspring of polygamy. The cadaverous face, the sensual countenance, the ill-developed chest, the long feeble legs, and the weak muscular system, are seen on all sides and are recognized as the distinctive feature of the Mormon type.<sup>37</sup>

The number of female children, he once again asserted,

is greatly in excess of the male, which is an evidence of the regression in the constitutional vigor of the population. The idiotic and the congenitally deformed are painfully numerous. These causes of decay, if not interfered with, would extinguish in a few centuries the Mormon society. Unfortunately, the strength and vigor of the population is maintained by constant infusions of new blood.

“By order” of the Academy, Bartholow’s discourse was published in the April issue of *The Cincinnati Lancet and Observer*, from which extracts once again were reprinted in *The Boston Medical and Surgical Journal*—relating particularly to Mormon women who Bartholow reported being told were “chiefly, prostitutes from our Eastern cities.”<sup>38</sup> Thereafter Dr. Bartholow apparently dropped the subject of Mormonism, moving on through the exceptional career noted at the outset. By the time he left Cincinnati a decade later, he had in addition to many academic accomplishments the “largest and most lucrative” medical practice in the city. As the distinguished professor of materia medica at Jefferson Medical College in Philadelphia he was constantly in demand as a consultant. Notwithstanding his many successes, Bartholow’s biographers have found him to be a man who “never had an intimate friend or even a close associate. A frigid dignity, a chilly reserve, and an uninviting manner which was not lacking in a suggestion of cynicism and sarcasm, stood during his whole life between the man and the world at large.” It can at least be said of his analysis of Mormonism that he viewed others with an equally sympathetic eye. In addition to the degeneracy he found among his troops, the mountain men, Indians and traders, he also confronted at least one other “excescence upon our body politic—the mixed races of New Mexico.” To judge from his characterization of this group, they may have been even more depraved than the Mormons.<sup>39</sup>

It goes without saying that the Mormons did not perceive themselves in quite the same light as did their critics. Yet, at the level of “physiologic” theory, their views could not have been more similar. The following characterization of the effects of “habits” and “religion” on the varieties of man,” from a series of articles in the *Mormon Juvenile Instructor* (1868), could as well have been extracted from Bartholow, Furley or others:

Those who have a barbarous form of faith, in which licentiousness, human sacrifices and disgusting orgies prevail, get a corresponding barbarous and cruel expression on their faces. While licentiousness and dissipation amongst every race either civilized or savage, black, brown or white, have always weakened that people, diminished their size and strength, aggravated their peculiarities and shortened their lives; on the other hand, a virtuous life, combined with a true faith well lived up to, has ever developed a superior race of men, robust in body, beautiful in countenance.<sup>40</sup>

Where Mormon and "Gentile" physiologists parted ways was in the cases they found illustrative of these basic principles. In Mormon eyes, "the deadly work of physical degeneracy" was indeed rampant in American society, "until the race is nearly upon the brink of extinction." But the problem was to be found in the vices of *non*-Mormon society. In New England, for example, "if you find any children at all, as a rule it is . . . two or three children at the most in the majority of cases, and they, generally sickly and short-lived."<sup>41</sup>

Things were distinctly different in Utah because of the many benefits accruing from the institution of "plural" marriage,

not only . . . upon the grounds of obedience to a divine law, but upon physiological and scientific principles. In the latter view, the wives are even more benefitted, if possible, than the husband physically. But indeed, the benefits naturally accruing to both sexes, and particularly to their offspring, in time, to say nothing of eternity, are immensely greater in the righteous practice of patriarchal marriage than in monogamy. . . .<sup>42</sup>

In the words of Apostle George Q. Cannon, "the physiologic side of the question" was "one, if not the strongest, source of argument in favor" of polygamy:

I have heard it said, and seen it printed, that the children born here under this system are not so smart as others; that their eyes lack lustre and that they are dull in intellect; and many strangers, especially ladies, when arriving here, are anxious to see the children, having read accounts which have led them to expect that most of the children born here are deficient. But the testimony of Professor Park, the principal of the University of Deseret, and of other leading teachers of the young here, is that they never saw children with greater aptitude for the acquisition of knowledge than the children raised in this Territory. There are not brighter children to be found in the world than those in this Territory . . . The offspring, besides being equally as bright and brighter intellectually, are much more healthy and strong.<sup>43</sup>

While no one appears to have felt a pressing need to confirm the grim findings of the 1850 territorial census, additional census reports did continue to appear. By 1866 most of the 1860 data was available, and it raised questions about some of the accepted wisdom on Mormon polygamy. Males continued to be as well represented in the infant population as females, in about



*From Leslie's Weekly, 11 November 1871*

the ratio that subsequent study has found to be nearly universal in all societies studied. Decennial ratios from Utah, for example—recalling still the general unreliability of the data—were 1850—104 males under age one to 100 females; 1860—98:100; 1870—105:100; 1880—103:100. Such a finding would not have been a surprise to everyone. As William Hepworth Dixon, editor of the *London Athenaeum*, wrote after visiting the Mormons in the summer of 1866, “we can happily say, in the light of science, that even in Egypt and Arabia the males and females are born in about equal numbers; the males being a little in excess of the females.”<sup>44</sup>

Death rates were another matter. J. H. Beadle’s vigorously anti-Mormon *Life in Utah; Or, the Mysteries and Crimes of Mormonism*, published in 1870 based on his fifteen-month residence in Utah, looked well back into the past to find “actual statistics [which show] that the mortality among children was, for many years, greater in Salt Lake City than any other in America, and the death-rate of Utah only exceeded by that of Louisiana.” More recently, “the sexton’s report for October, 1868, the healthiest month in the year, and my first in the city, gives the interments at sixty, of which forty-four were children.”<sup>45</sup>

Mortality rates, especially those of early childhood, are among the least reliable population statistics even in areas where reasonably sophisticated census surveys are possible. In Utah at this time, where one Mormon leader is alleged to have described the data as obtained “mainly by guessing on the part of a gentile officer, who would not go about and count,”<sup>46</sup> reported mortality figures were essentially worthless. It is nonetheless revealing that critics of the Mormons still turned to the 1850 figures which had ranked Utah so high in overall mortality rate. The figures for 1860 were dramatically different, and this difference persisted for the remainder of the century:

*Reported death rate/1000 total population*

	<u>Utah</u>	<u>United States</u>
1850	21.0	13.9
1860	9.3	12.5
1870	10.2	12.5
1880	16.4	14.6
1890	10.0	13.4
1900	11.1	13.7

Such figures have little meaning. The Utah rates are grossly under-reported, particularly in the decades from 1860 to 1890 during which, it appears, a large percentage of infant deaths were not recorded in the census. If one computes the death rates for infants under age one, and children under age five,—based on the reported deaths and total population in these age groups—Utah still does “better” than the national average. This is solely because of the poor census records—infant mortality rates in Utah become much *higher* at the end of the century despite better health care, simply because the records

are better—but nonetheless reflects directly on the selectivity with which these early records were used.<sup>47</sup>

The alternative to census figures was the type of isolated data, also included by Beadle, obtainable from monthly death notices, newspaper accounts and cemetery records. The best reconstruction of such material for nineteenth century Utah is found in Ralph Richards's *Of Medicine, Hospitals, and Doctors*, and is based primarily on an extensive review of cemetery and hospital records in the Salt Lake City area. His findings, which are presented in terms of absolute number of deaths for several important diseases, suggest strongly that the infant and early childhood mortality rates were indeed high in these early years, and that they probably continued so until a number of sanitary reforms were introduced in the 1890s. No meaningful overall rates can be calculated from his figures, but it seems evident that infant death rates were at least as high in Utah as they were in other less developed regions of the American west.<sup>48</sup>

According to Beadle, the Mormons explained the high mortality "by saying that their people are poor and exposed to hardships." He would add to this that the poverty stemmed from their religion, and that they also neglected responsible medical care:

They claim that "laying on of hands and the prayer of faith" will heal the sick, and, yet, no people within my knowledge are so given to "Thomsonianism," "steam doctoring," "yarb medicine," and every other irregular mode of treating disease.<sup>49</sup>

Army Surgeon W. C. Spencer, at the time stationed at Camp Douglas, just outside of Salt Lake City, had a similar impression. While "the health of the Mormon people is generally good," he wrote the Surgeon General, "in the city . . . the mortality among the children is quite large." This he attributed less to epidemics than to "neglect, insufficient food, and the practice of 'laying on of hands' . . . to the exclusion of remedial measures."<sup>50</sup> Unlike most of his predecessors, Spencer did not feel impelled to attribute the problem to intrinsic "physiological" degradation. To him, the Mormons had social and cultural deficiencies, but the impact of these shortcomings was on attitudes and practices—not on physiology.

Dr. Spencer's superior at Camp Douglas was Surgeon E. P. Vollum, a career army physician about whom very little is known. He had been a military surgeon for twenty years when he arrived in Utah, but the nature and extent of his experience is uncertain. One thing can be said about him: his physiologic perspective was different from that of Dr. Roberts Bartholow. To Vollum "the best known treatment for consumption" was "a year of steady horseback-riding in a mountainous country, and a diet of corn-bread and bacon, with a moderate quantity of whiskey." Surgeon Vollum's tour of duty in Utah extended over several years, during which he "traveled over the length and breadth of the Territory, and . . . made an intimate acquaintance with the people of all classes and degrees." As a result he probably had the



most detailed knowledge of Mormon health yet acquired by anyone outside the Mormon community.<sup>51</sup>

Vollum's "Special Report On Some Diseases of Utah" was published by the Surgeon General in 1875 as part of the *Report of the Hygiene of the United States Army*. In it he addressed most of the familiar themes. While it was still "perhaps too early to express any mature opinions as to the influence of polygamy . . . on the health or constitution or mental character of the Anglo-Saxon race as seen in Utah," there were a number of observations which could be made:

as far as the experience has gone, which is long enough to furnish quite a population ranging from twenty-five years downward, no difference can be detected in favor of one or the other [i.e., polygamy or monogamy]. Polygamy in Utah, as far as I can learn, furnishes no idiocy, insanity, rickets, tubercles or struma, or other cachexia, or debasing constitutional conditions of any kind. . . . The polygamous children are as healthy as the monogamous, and the proportion of deaths is about the same; the difference is rather in favor of the polygamous children, who are generally, in the city especially, situated more comfortably as to residence, food, air, clothing, their parents being better off than those in monogamy.<sup>52</sup>

One trace of the earlier view reflected a still current view of the nature of heredity:

Some observers imagine they notice a saddened expression of countenance on the Mormon children; that they have not the cheeriness and laughter common to that age; especially that the young women, who here are robust, ruddy, and well made, lack the amiable, bright and cordial countenance characteristic of young women everywhere, and they attribute this supposed dullness of face to the pre-natal influences of the polygamous relation on the mothers. Certainly at times I have thought there was some truth in such a notion.<sup>53</sup>

This was not to suggest that there were no health problems. While "the adult population are as robust as any within the borders of the United States, . . . the weight of sickness falls upon the children, who furnish not less than two-thirds of all the deaths, most of which occur under five years of age." This "great mortality" was "confined chiefly to the Mormon population," and like Beadle and Spencer, Vollum thought it could "be traced to absence of medical aid, nursing, proper food for sick children, and neglect of all kinds." In particular, "the children of Salt Lake City may often be seen in groups insufficiently clad, the lower half of the body bare, playing about in the cold water. . ."—the latter activity especially to be condemned as it led to catarrhs, pneumonia, fevers, bowel complaints and "necrosis of the tibia" [i.e., death of a portion of the "shin" bone].<sup>54</sup>

Like those before him, Vollum singled out Mormon medical care for special condemnation—"the nonsensical mummery of the 'laying on of hands, ' . . . the tea of the sage-brush, and other old woman's slops. . . ." The results

were "as might be expected."<sup>55</sup> Ironically, at the time of Vollum's report, Mormons were beginning their transition from primary reliance on priesthood administration, botanic remedies and folk medicine, to acceptance of orthodox, and increasingly scientific medical care. Even then the first Mormons were studying in medical schools in the East. Perhaps more importantly for the health of Mormon babies, physicians elsewhere were beginning to understand and prevent disease. Notwithstanding Vollum's expressed concerns, it was not so much cold water as contaminated water that posed the threat—and faulty feeding practices and a host of other hygienic considerations. Excessive deaths among the young, to judge from those enumerated in the census, were due to the same causes prevalent elsewhere: dysentery, pneumonia and diphtheria,<sup>56</sup> about which "orthodox" medicine had been able to do little. In the perceptive words of one early visitor, "homoeopathy and hydropathy succeed by doing nothing; 'administration' very likely answers better than over-dosing. . . ."<sup>57</sup> When scientific medicine finally had much to offer late in the nineteenth century, engrained Mormon distrust of orthodox medical practice may have delayed implementation for a few years; but by the early twentieth century Mormons as a group had a death rate substantially below the national average, a distinction they have maintained to the present.

It is not known how widely Surgeon Vollum's report was circulated—I've found no reference to it in contemporary medical journals—, but it seems to mark by coincidence or otherwise the end of the notion of a "Mormon physiology," at least within the medical literature.<sup>58</sup> Several decades later, Josiah Hickman, a Mormon, conducted "A Critical Study of the Monogamic and Polygamic Offspring of the Mormon People" for his master's thesis at Columbia University. His rather unsophisticated comparison of large numbers of students supposedly revealed those of polygamous origins to be taller, heavier and superior in intellect. A larger, community-based portion of his study found that polygamous offspring had fewer "physical deformities and . . . mental degeneracy, due to birth and sickness," and greater professional success than did their monogamist counterparts. More significant, for our purposes, was an introductory note by the editor of *The Journal of Heredity*, in which Hickman's findings later were published:

The fact that plural families were restricted by the Church authority to a select class of the population would explain the average superiority of the polygamous families.<sup>59</sup>

In retrospect, that seemed self-evident.

#### NOTES

<sup>1</sup>As recounted by Bartholow a decade later, in "The Physiological Aspects of Mormonism, and the Climatology, and Diseases of Utah and New Mexico," *The Cincinnati Lancet and Observer* 10:193–205 (April 1867).

<sup>2</sup>*ibid.*

<sup>3</sup>Thomas Lawson, ed., *Statistical Report on the Sickness and Mortality in the Army of the United States, from January 1855 to January 1860* (Washington, D.C., 1860), pp. 301–2; Senate Executive Document 52, 36th Congress, 1st session, pp. 283–304; *Medical Times and Gazette* (London) 2:190–92 (24 August 1861); *The Boston Medical and Surgical Journal* 63:438–40 (27 December 1860); *The Pacific Medical and Surgical Journal* 4:343–47 (1861); *The Saint Louis Medical and Surgical Journal* 19:270–72 (May 1861); *Georgia Medical and Surgical Encyclopedia* 1:321–23 (November 1860); *DeBow's Review* (New Orleans) 5:208–10 (February 1861)

<sup>4</sup>*The San Francisco Medical Press* 4(13):1–4 (April 1863); *The American Journal of Insanity* 20:366–67 (January 1864); *American Medical Times* 7:44 (25 July 1863); *The Boston Medical and Surgical Journal* 68:507–9 (23 July 1863).

<sup>5</sup>*The Cincinnati Lancet and Observer* 10:193–205 (April 1867); *The Boston Medical and Surgical Journal* 76:296 (2 May 1867); *British Medical Journal*, Vol. 1 for 1861, p. 77 (19 January 1861); *American Medical Times* 1:432 (15 December 1860).

<sup>6</sup>Biographical data on Bartholow can be found in many places. Three of the most extensive sketches are James W. Holland, M.D., "Memoir of Roberts Bartholow, M.D.," *Transactions of the College of Physicians of Philadelphia*, 3d Series, 23:xliv–lii (1904); "Editorial [on Roberts Bartholow, M.D., LL.D.]," *The Eclectic Medical Gleaner*, New Series, 8:81–87 (March 1912); Otto Juettner, *Daniel Drake and His Followers* (Cincinnati: Harvey Publishing Co., 1909), pp. 260–67; and John R. Quinan, *Medical Annals of Baltimore From 1608 to 1880* (Baltimore: Isaac Friedenwald, 1884), pp. 61–62.

Among Bartholow's more popular books were *A Treatise on the Practice of Medicine for the Use of Students and Practitioners of Medicine* which went through nine editions (one in Japanese) between 1880 and 1895, and *A Practical Treatise on Materia Medica and Therapeutics*, which went through eleven editions between 1876 and 1904.

<sup>7</sup>Lawson, ed., *Statistical Report*, pp. 288–89. On the moralistic foundation of physiologic thinking at mid-century see Richard H. Shryock, "Sylvester Graham and the Popular Health Movement, 1830–1870," in Shryock, *Medicine in America: Historical Essays* (Baltimore: Johns Hopkins Press, 1966), pp. 111–25, and Chapter 3, "The Health Reformers," in Ronald L. Numbers, *Prophets of Health: A Study of Ellen G. White* (New York: Harper & Row, 1976), pp. 48–76. A further extension is discussed in James C. Whorton, "'Christian Physiology': William Alcott's Prescription for the Millennium," in *Bulletin of the History of Medicine* 49:466–81 (Winter 1975). While these accounts do not all deal with the mainstream of medical thought and practice, the general philosophy described can be applied to most contemporary physicians.

<sup>8</sup>Lawson, ed., *Statistical Report*, p. 287. Ironically, Bartholow himself was shortly to lose most of his teeth to a "scorbutic" malady—one of the sore privations at Fort Bridger.

<sup>9</sup>*Ibid.*, p. 284. For perspective see H. Tristram Engelhardt, Jr., "The Disease of Masturbation: Values and the Concept of Disease," *Bulletin of the History of Medicine* 48:234–48 (Summer 1974).

<sup>10</sup>Roberts Bartholow, *On Spermatorrhea: Its Causes, Symptomatology, Pathology, Prognosis, Diagnosis, and Treatment* (New York: Wood, 1866), pp. 18–23. The masturbator also had "unusual development of acne" and "an oblique line extending from the inner angle of the lids transversely across the cheek to the lower margin of the malar bone," and an inevitable "atrophy" of the genital organs. While spermatorrhea classically referred to the "flow of semen without copulation," Bartholow asserted—apropos the case in point—that "excess in natural coitus, as well as masturbation, but by no means so frequently, will produce the same morbid state" (p. 14). *On Spermatorrhea* was very favorably received by the medical community, receiving many laudatory reviews, and eventually going through five editions.

<sup>11</sup>Quotations from Thomas D. Clark, ed., *Off at Sunrise: The Overland Journal of Charles Glass Gray* (San Marino: Huntington Library, 1976), p. 63; Dale L. Morgan, ed., "Letters by Forty-Niners," *Western Humanities Review* 3:109, 111 (April 1949); Jessie G. Hannon, *The Boston-Newton Company Venture From Massachusetts to California in 1849* (Lincoln: University of Nebraska, 1969), p. 163; Samuel M. Smucker, *Life Among the Mormons* (New York: Hurst & Co., ca. 1889), p. 416, citing a New York newspaper account about 1850.

<sup>12</sup>I. S. Briggs, "Medical History of a California Expedition," *The Boston Medical and Surgical Journal* 41:479–80 (9 January 1850). Other physicians who wrote about Salt Lake City and the Mormons without noting any peculiar physiognomy included Caleb N. Ormsby of Michigan

and Thomas Flint of Philadelphia. See Russell E. Bidlack, *Letters Home: The Story of Ann Arbor's Forty-Niners* (Ann Arbor: Ann Arbor Publishers, 1960), and *Diary of Dr. Thomas Flint, California to Maine, 1851–1855* (Los Angeles: Reprinted from the Annual Publications, Historical Society of Southern California, 1923), p. 58. The general absence of reports on the Mormons in the major medical journals during these early years is probably itself significant evidence that nothing unusual was observed by those passing through. Certainly there were enough "trained observers;" in 1850 alone over 100 physicians reportedly made the overland trek from Council Bluffs to California, many passing through Mormon country en route. See M. H. Clark, "Mortality on the Platte River," *The Boston Medical and Surgical Journal* 47:121–22 (1853).

<sup>13</sup>Morgan, "Letters", pp. 113–14. It is clear from letters such as this, written in 1849, that while polygamy was not openly proclaimed by the Mormons until 1852, it was a practice visible to at least some visitors several years earlier. Others, such as topographical engineers Howard Stansbury and J. W. Gunnison, who wintered with the Mormons in 1849–50, also became familiar with this Mormon practice. See Howard Stansbury, *An Expedition to the Valley of the Great Salt Lake . . .* (London: Sampson Low, Son, and Co., 1852), p. 137, and Lieut. J. W. Gunnison, *The Mormons or Latter-day Saints, in the Valley of the Great Salt Lake . . .* (Philadelphia: J.B. Lippincott & Co., 1856), p. 67.

<sup>14</sup>Benjamin G. Ferris, *Utah and the Mormons* (New York, 1854), p. 249.

<sup>15</sup>John Hyde, Jr., *Mormonism: Its Leaders and Designs* (New York, 1857), p. 75; *Census Reports*, 1850.

<sup>16</sup>Hyde, *Mormonism*, p. 74–75.

<sup>17</sup>Several later commentators on Mormon polygamy, still convinced that a disproportion existed between the sexes from birth, credited Montesquieu with first having made the association elsewhere. John Cairncross, *After Polygamy Was Made a Sin: The Social History of Christian Polygamy* (London: Routledge & Kegan Paul, 1974), p. 107, specifically dates the idea to Montesquieu's *The Spirit of the Laws* (1747).

<sup>18</sup>*Census Reports*, 1850. Usually the death rate is significantly higher among male babies.

<sup>19</sup>Ferris, *Utah and the Mormons*, p. 249; Gunnison, *The Mormons*, p. 160.

<sup>20</sup>Hyde, *Mormonism*, p. 77.

<sup>21</sup>Jules Remy, *A Journey to Great-Salt-Lake-City* (London: W. Jeffs, 1861), p. 150. A French edition appeared in 1860, and at least one author has reported an 1857 edition, which I have been unable to confirm. Remy's impressions may therefore not have been published prior to Bartholow's arrival in Salt Lake City.

<sup>22</sup>On Hurt see Norman Furniss, *The Mormon Conflict, 1850–1859* (New Haven: Yale University, 1960), esp. pp. 49–50. Of potentially greater influence was Dr. Charles Brewer, also a University of Maryland graduate and fellow Assistant Surgeon. Brewer, who eventually replaced Bartholow at Camp Floyd, had traveled for a time with the "Perkin's train"—part of the ill-fated Fancher party—which was massacred in southern Utah in September 1857 by a combined group of Indians and Mormon militiamen. It is not apparent whether Brewer and Bartholow were in communication prior to Bartholow's report. See the "Special Report of the Mountain Meadow Massacre, by J.H. Carleton . . ." in which Brewer testifies on the subject, House of Representatives Document 605, 57th Congress, 1st Session.

Finally, there were the increasingly popular fictional accounts of Mormonism, which at least since 1855 had been promoting a stereotype of licentiousness and debauchery. See Leonard J. Arrington and Jon Haupt, "Intolerable Zion: The Image of Mormonism in Nineteenth Century American Literature," *Western Humanities Review* 22: 243–60 (Summer 1968).

<sup>23</sup>Bartholow, *The Cincinnati Lancet and Observer* 10: 194.

<sup>24</sup>Lawson, *Statistical Report*, p. 301–2. Bartholow illustrated the high infant mortality rate with an example that was very popular with later critics of Mormon polygamy. Among the "large number of children" who had been born to Brigham Young, "a majority" had died "in infancy, leaving twenty-four." In fact, at the time Bartholow was writing (1858), Young had fathered forty-four children, five of whom (including two sets of twins) had died in infancy. Two others had died at the age of seven, leaving him thirty-seven of his forty-four children, a very reason-

able survival rate at the time. Eventually Young fathered fifty-seven children, of whom eight died in infancy, still as least as good a record as found in most of the United States throughout the nineteenth century. Young family data from Dean C. Jessee, ed., *Letters of Brigham Young to His Sons* (Salt Lake City: Deseret Book, 1974), Appendix C.

<sup>25</sup>Lawson, *Statistical Report*, p. 302.

<sup>26</sup>Journals as cited in note 3. The New Orleans Academy of Sciences proceedings were published in *DeBow's Review* 30:206–8, with the Bartholow, Forshey, and Cartwright articles following. Newell G. Bringhurst, "A Servant of Servants . . . Cursed as Pertaining to the Priesthood" (Unpublished Ph.D. dissertation, University of California, Davis, 1975), p. 183–84, puts these comments into the perspective of contemporary views on race; Charles A. Cannon also has many relevant comments in "The Awesome Power of Sex: The Polemical Campaign Against Mormon Polygamy," *Pacific Historical Review* 43: 61–82 (February 1974), especially pp. 77–79 in which he deals with the physiologic issue.

<sup>27</sup>*DeBow's Review* 30:207–8.

<sup>28</sup>*Medical Times and Gazette* 2:190.

<sup>29</sup>Horace Greeley, *An Overland Journey from New York to San Francisco* (New York: C.M. Saxton, Barker & Co., 1860), p. 242.

<sup>30</sup>Richard F. Burton, *The City of the Saints* (1861), Fawn M. Brodie, ed. (New York: Alfred A. Knopf, 1963), pp. 472–73.

<sup>31</sup>*The San Francisco Medical Press* 4(13):1–4 (April 1863). Nothing is known of Furley's background or career; he is not listed in the standard roster of Union officers.

<sup>32</sup>E.g., *The Journal of Insanity*, *The Boston Medical and Surgical Journal*, and the *American Medical Times*, as cited in note 4.

The feeble virility or genital weakness reported by Furley and Bartholow was difficult to rationalize with the concurrent reports that Mormons were an unusually fertile group. Typically this was ascribed to the women, and allegedly accounted for the excess female births. In later years, when it was finally apparent that Mormon families were both large and evenly divided between males and females—despite behavior that should have resulted in sexual debility among the males (cf. note 10 above)—non-Mormon patent medicine entrepreneurs began marketing "Mormon" male rejuvenation preparations allegedly used by the Mormon men to protect their virility. Mormon Elders Damiana Wafers, Brigham Young Tablets and others, "in use for fifty years by the heads of the Mormon Church and their followers," protected against "Lost Manhood, Spermatorrhoea, Loss of Vital Fluids," and other hazards.

<sup>33</sup>Samuel Bowles, *Across the Continent: A Summer's Journey to the Rocky Mountains . . .* (Springfield, Mass.: Samuel Bowles & Co., 1865; Readex Microprint, 1966), p. 126; William Chandless, *A Visit to Salt Lake . . .* (New York: AMS Press, [1857] 1971), p. 208; E.H. Derby, *The Overland Route to the Pacific . . .* (Boston: Lee & Shepard, 1869), p. 31; E.P. Hingston, ed., *Artemus Ward (His Travels) Among the Mormons* (London: John Camden Hotten, Picadilly, 1865), pp. xxii, 41; Bowles, *Across the Continent*, p. 126. Bartholow began his 1867 commentary with the observation that "in the first place there are no handsome women in Utah."

There were many who disagreed, e.g., Solomon Nunes Carvalho, *Incidents of Travel and Adventure in the Far West . . .* [1857], Centenary Edition (Philadelphia: The Jewish Publication Society of America, 1954), p. 254; William Hepworth Dixon, *New America* (London: Hurst and Blackett, 1869 [8th ed.]), pp. 131, 213; Elizabeth Wood Kane, *Twelve Mormon Homes . . .* (1874) (Salt Lake City: University of Utah Library, 1974), pp. 41–42.

<sup>34</sup>Mark Twain, *Roughing It* (Hartford, Conn.: American Publishing Co., 1872), pp. 117–18.

<sup>35</sup>Bowles, *Across the Continent*, p. 123–24.

<sup>36</sup>Demas Barnes, *From the Atlantic to the Pacific, Overland . . .* (New York: D. Van Nostrand, 1866), p. 58.

<sup>37</sup>Bartholow, "The Physiological Aspects . . .," *The Cincinnati Lancet and Observer* 10: 197–98 (April 1867).

<sup>38</sup>*Ibid.*, p. 195; *The Boston Medical and Surgical Journal* 76:296 (2 May 1867). Bartholow attributed his information to "merchants, long residents of Salt Lake City, who had unusual opportunities for learning the facts."

<sup>39</sup>Juettner, *Daniel Drake*, p. 261; Holland, "Memoir," p. xliii; *The Cincinnati Lancet and Observer* 10:203.

<sup>40</sup>G.R. "The Varieties of Man," *Juvenile Instructor* 3:173-74 (1868).

<sup>41</sup>Apostles Amasa Lyman, 5 April 1866, in *Journal of Discourses* [JD] 11:207; and Erastus Snow, 6 April 1880, in *Conference Reports*, p. 58. John Noyes's Oneida Community advanced a related argument in support of their contemporary, partially polygamous "stirpicultural experiment." Philip R. Wyatt, "John Humphrey Noyes and the Stirpicultural Experiment," *Journal of the History of Medicine and Allied Sciences* 31(1):55-66 (January 1976).

<sup>42</sup>Joseph F. Smith, 7 July 1878, in JD 20:30.

<sup>43</sup>JD 13:206-8 (9 October 1869).

<sup>44</sup>Ratios computed from male and female populations under age one, in *Census Reports*, 1850-1880; Dixon, *New America*, pp. 185-86.

<sup>45</sup>J. H. Beadle, *Life in Utah; Or the Mysteries and Crimes of Mormonism* (Philadelphia: National Publishing Co., 1870), pp. 373-74. Nearly all of Beadle's time in Utah was spent in the non-Mormon town of Corinne. While there is probably a real basis for his somewhat overstated mortality rates, many of his related claims—as with others before him—were hearsay or demonstrably imaginative. Consider the implications, for example, of his claim to have learned "from personal observation and the testimony of many Mormons" that, as a result of polygamy, masturbation was more common among Mormon youth than anywhere else in America (p. 376).

<sup>46</sup>Dixon, *New America*, p. 187.

<sup>47</sup>Death rates computed from total population and death figures summarized in *Census Reports*, 1900, Volume IV, Population and Deaths, Table entitled "Population and Deaths, by States and Territories at each Census: 1850 to 1900." As late as 1890, the *Census Reports* found Salt Lake City data insufficient to compute infant death rates. In the 1900 *Census Reports*, a rate of 82.9 infant deaths per 1000 births was given, about half the national average. By 1930 state-wide rates had fallen to 25 per thousand, and by 1970 to 15.

<sup>48</sup>Ralph T. Richards, *Of Medicine, Hospitals, and Doctors* (Salt Lake City: University of Utah Press, 1953), pp. 140-72. Regarding the earliest period, Richards reports a staggering overall mortality rate of 9% among Mormons during a two year period in Winter Quarters, enroute to Utah; half of the deaths were "among babies." (p. 141)

<sup>49</sup>Beadle, "Life in Utah," p. 374.

<sup>50</sup>"Report of Surgeon W.C. Spencer, United States Army," in John S. Billings, *War Department Surgeon General's Office Circular No. 4, "Report on Barracks and Hospitals with Descriptions of Military Posts,"* 5 December 1870 (New York: Sol Lewis, 1974), p. 366.

<sup>51</sup>"Report of Surgeon E.P. Vollum, USA," in John Shaw Billings, *War Department Surgeon General's Office Circular No. 8, "Report on the Hygiene of the United States Army,"* 1 May 1875 (Washington, D.C., 1875), pp. 342-43. A regimen of regular horseback riding notwithstanding, his assistant, Dr. Spencer, succumbed a few years earlier to consumption.

Despite Mormon reluctance to turn to orthodox medical practitioners, a number of "regular" physicians—both Mormon and non-Mormon—had practiced in Utah from the earliest years of the Mormon presence. While these physicians clearly had extensive exposure to Mormon "physiology," it apparently did not strike them as worthy of a report to any contemporary medical journal.

<sup>52</sup>*Ibid.*, p. 341.

<sup>53</sup>*Ibid.*

<sup>54</sup>*Ibid.*

<sup>55</sup>*Ibid.*

<sup>56</sup>And definitely not "phthisis pulmonalis" (pulmonary tuberculosis), as projected by Dr. Furlay, from which Utah consistently reported among the lowest percentage deaths in the country. The categories in which Utah fared the worst were "teething" (a general term including diarrheal illnesses) and "croup." *Census Reports*, 1850-1890; see also Richards, *Of Medicine*.

<sup>57</sup>Chandless, *A Visit to Salt Lake*, pp. 238-39.

<sup>58</sup>If later medical reports in support of a distinctive Mormon physiology do exist, I would be interested to learn of them. Two obvious chances to resurrect this idea were passed by almost

without comment in Theodore Schroeder's "The Sex-Determinant in Mormon Theology," *The Alienist and Neurologist* 29:208-22 (May 1908) ["perhaps . . . a congenital hypertrophy of sex organs"], and "Incest in Mormonism," *The American Journal of Urology and Sexology* 11:409-16 (1915) ["no claim can be made that added congenital ills will be transmitted"].

A few nonmedical sources did continue the tradition. A. E. D. De Rupert reported in *Californians and Mormons* (New York, 1881) that "Mormon children by the first wife are well-formed, strong and healthy; but the off-spring of wives number two, three, and four is generally feeble in body as well as in mind" (p. 161). Similarly, Smucker, in *Life Among the Mormons*, spoke of the "shortness of life" of the children of Utah polygamists being "proverbial," and attributed this to "their natural imbecility from their birth, and the prevalent want of care, cleanliness, and attention" (p. 416).

More representative was the assessment of Hubert Howe Bancroft, who appears to have accepted the Mormon assertion that there was no racial deterioration "under the polygamous system." Echoing Vollum's impression, and anticipating later assessments, Bancroft noted that "only the better class of men, the healthy and wealthy, the strongest intellectually and physically" were polygamists," and thus [the Mormons say], by their becoming fathers to the largest number of children, the stock is improved." *History of Utah* [1890] (Salt Lake City: Bookcraft, 1964), p. 384.

<sup>59</sup>J. E. Hickman, "The Offspring of the Mormon People," *The Journal of Heredity* 15:55-68 (February 1924); Davis Bitton, "Mormon Polygamy: A Review Article," *Journal of Mormon History* 4:102 (1977). Another related study, in 1933, is reported in Nels Anderson, *Desert Saints* (Chicago: University of Chicago, 1942, 1966), pp. 412-13. The same general findings apply to the polygamous offspring of the Oneida community. Wyatt, "John Humphrey Noyes," pp. 63-66.

# *Mormon Health*

JOSEPH L. LYON, M.D. AND STEVEN NELSON

Prove thy servants, I beseech thee, ten days; and let them give us pulse to eat, and water to drink.

Then let our countenances be looked upon before thee, and the countenances of the children that eat, of the portion of the king's meat; and as thou seest, deal with thy servants.

So he consented to them in this matter, and proved them ten days.

And at the end of ten days their countenances appeared fairer and fatter in flesh than all the children which did eat the portion of the king's meat.

Daniel 1:12-15

THE EXPERIENCE OF DANIEL and his friends in Nebuchadnezzar's Babylon was, perhaps, the first published instance of a controlled clinical trial. This preliminary success led to an extension of the trial diet for a three-year period, at the end of which Daniel's group not only demonstrated fairer countenances, but superior performances on the king's equivalent to an I.Q. test.

Although perceptive observers were to comment on the relationship of disease to various occupations or diets regularly from the time of the early Greek physicians onward, rigorous "scientific" verification of such observations is a recent development. Sir Percival Potts had deduced a link between soot and scrotal cancer in chimney sweeps on the basis of primitive

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JOSEPH L. LYON, M.D., M.P.H. is Assistant Professor, Dept. of Family and Community Medicine, University of Utah College of Medicine.

STEVEN NELSON is a third year medical student and former Rhodes Scholar, University of Utah College of Medicine.



epidemiological principles late in the eighteenth century, but the heyday of the study of the incidence of disease in various populations (i.e., epidemiology) still awaited the development of more sophisticated bio-statistical techniques in the mid to late nineteenth century. Anecdotal indications of the benefits of various programs— or diets— remained the most popular preaching tool of their advocates, be they physicians or ministers, throughout the 1800s.

In order to conclusively document better health in any group, it was necessary to compile accurate health statistics. The development in the early 1900s of federal and state public health agencies led to the tabulation of health statistics on a large scale for the first time in the United States. Utah began certifying all deaths in 1905, and is considered to have complete coverage since 1910. (The Church started to announce such statistics as annual birth and death rates about the same time, but the figures were not reliable for several decades.)

Beginning in the 1930s and continuing into the 1950s, research efforts finally established a strong epidemiological link between cigarette smoking and lung cancer. Intensive research on the causes of cancer during this period elucidated the role of other carcinogens, or cancer-causing substances, especially in industrial settings. It came to be accepted that personal habits as well as environment played at least some role in the causation of certain malignancies. During this same period, links between cigarette smoking and cardiovascular disease were first suspected. In a long-range, large scale investigation of heart disease in Framingham, Massachusetts, diet and personal habits (including smoking) were shown to be contributing factors in heart disease.

The role of the environment as a causal agent in non-infectious disease is now one of the major areas of medical research. Since prevention is much superior to attempting a cure, much effort is now expended identifying specific groups most at risk for various diseases. In the process, it has become evident that environmental factors operate in a multicausal framework. Both the general environment and personal health practices (such as the Word of Wisdom) must interact with hereditary sensitivity or "immuneness" to a disease. Individual cases may be—and often are—exceptions to the general rule, and thus health influences must be demonstrated in a *group* effect.

In the 1960s, researchers studying cancer and heart disease noted that there were differences in the incidences of these diseases in people of different religious affiliation. Jewish people, for example, had low risk for cervical cancer, and Seventh-Day Adventists had low risk for cancer of the lung, colon, and other sites. California Adventists over the age of thirty were shown to have a lower overall mortality than their non-Adventist neighbors.

In the 1970s research has been directed at another religious group prominent among those that exert control over the diet and behavior of their adherents—the Mormons. While similar in many ways to that of Adventists, the Mormon lifestyle, shaped by the dietary guidelines of the Word of Wisdom as well as other social and moral doctrines, is sufficiently different from

that of most non-Mormons to suggest that Mormon health might be significantly different as well.

### EARLY MORMON HEALTH

Widespread adherence to the Word of Wisdom—the apparent source of much of the Mormon health difference—did not begin until well after the Saints migrated to Utah. Beginning in the latter part of the last century, the revelatory proscription against alcohol, tobacco, coffee and tea started to be enforced as a requirement for full participation in the Church.<sup>1</sup> Prior to that time, the most notable peculiarity of Mormonism was the doctrine of polygamy, which practice was felt by some medical observers to have a very deleterious effect on polygamists as well as their offspring. Many medical journals carried reports of the sickly status of the Mormons in the first decades of their western migration. Unreliable census reports appeared to confirm the impressions of a number of firsthand observers that there was an unusually high mortality among the Mormons, especially among infants and children. As primitive frontier conditions improved and more objective observers submitted their reports, this notion gradually disappeared. By the close of the nineteenth century, the health of the Saints was not so often questioned. If anything, they were credited, in the popular mind, with unusual sexual stamina.<sup>2</sup>

The Church first began to report “Mormon” death rates early in the twentieth century, and to the surprise of some, the Saints appeared to do considerably *better* than the nation at large. Attention was called to this fact in various General Conferences and in works such as Frederick J. Pack’s *Tobacco and Human Efficiency* (published by the Church in 1918). By and large, however, the unreliability of the statistics make such early claims little more trustworthy than the anecdotal evidence of the previous century.

In 1937, John and Leah Widtsoe published *The Word of Wisdom: A Modern Interpretation*, in which the revelation was viewed in the light of then-current scientific findings. In remarking on the health of the Mormons, the Widtsoes cited gross death rates by cause, as determined by Church records, and compared them to overall U.S. rates and rates for six industrialized nations from a 1929 League of Nations report. Though fraught with methodological problems, this report supported the claim that Mormons enjoyed better health than the comparison groups. The Widtsoe’s statistics suggested that Mormons had about half the cancer rate of the comparison nations, as well as less heart, kidney and lung disease. There were also said to be fewer deaths from diseases of the nervous and digestive systems, and only a very small fraction (e.g., 10%) as many deaths from complications of pregnancy, diabetes and tuberculosis. Of all the conditions compared, only in the case of typhoid did the Mormons fare no better than their contemporaries. (Other data, not cited, might have shown them to compare less favorably in the case of rheumatic fever and smallpox.)

The Word of Wisdom itself had gone so far as to include very specific, if symbolic, promises as a reward for compliance: “They [adherents] shall re-

ceive health to their navel and marrow to their bones . . . and shall run and not be weary and walk and not faint." While no one, to our knowledge, has yet done comparative bone marrow studies, or found active Mormons phenomenally strong in marathons or endurance walks, the underlying question of Mormon health, at least until very recently, also has not been evaluated with the sophisticated tools of modern epidemiology. Are Mormons really any healthier than non-Mormons?

### CANCER

In 1975, James Enstrom published an article in *Cancer* on mortality from various malignancies among California Mormons. This fairly large study pointed out that Mormons seemed to have one-half to three-fourths the cancer incidence of the general California population. The study was a good preliminary indication of Mormon cancer rates, but lacked accurate data in several areas for the specific study group.<sup>3</sup>

At the same time, we were preparing several studies on both cancer and heart disease among Utah Mormons. Mormons and Utahns lend themselves admirably to such health studies. With over 37% of the U.S. Mormon population, Utah contains the largest single group of Mormons in the U.S. (777,633 in 1970). The now improved record system of the Mormon Church, which was computerized in the mid 1970s, aids in helping to determine whether or not a Utahn is LDS. (Church genealogical data also have promise as an aid to genetics researchers who have established several research projects in Salt Lake City.) In 1966, the Utah Cancer Registry was established, which identifies and follows all cancer cases, except skin cancers, in the state. These and other factors make the state a good area for disease research and an ideal area for Mormon, non-Mormon studies.

In early 1976, we published, in the *New England Journal of Medicine*, a study on cancer incidence in Mormons and non-Mormons in Utah.<sup>4</sup> By taking all incidences of reportable cancer in the state from 1966 to 1970, and carefully comparing with Church and public records, we were able to separate the nearly 11,000 cases by religion—Mormon and non-Mormon. Because of the availability of good demographic data, we were able to correct our data for age distribution and other potentially confounding factors. (For example, most forms of cancer are diseases of middle and late age. Mormons, with their high birth rate, have a younger age distribution, which must be corrected for.) The data are presented as age-standardized (any difference in age in the population has been controlled for, mathematically) incidence ratios (SIRs). The reference population is a sample of U.S. population, and expected numbers of new cancer cases in Mormons and non-Mormons are obtained by applying the U.S. rates to the Mormon and non-Mormon populations. This expected value is divided into the observed number of cases and multiplied by 100. A ratio of 100 means no difference from the U.S. average. Less than 100 means the disease was less common than in the general U.S. population. The results of our study are shown in Table 1.

Our results pose some intriguing questions. Cancer sites listed as "smoking related" (i.e., gum and mouth, tongue, pharynx, larynx, lung, esophagus

Table 1. Selected Mormon and non-Mormon standardized incidence ratios (SIRs) compared to Third National Cancer Survey and comparison of Mormon to non-Mormon ratios within Utah.

Site	Sex	Utah SIR × 100		Statistical comparison of LDS to non-LDS
		LDS	non-LDS	
All sites (excluding skin)	M	72.7	106.3	+
	F	75.8	115.3	+
Smoking associated sites	M	44.2	94.0	+
	F	43.2	95.9	+
Lip	M	292.6	359.4	+
	F	325.9	535.6	+
Esophagus	M	37.6	113.5	+
	F	17.9	82.2	+
Stomach	M	66.8	109.9	+
	F			
Colon	M	62.1	90.5	+
	F	62.3	106.8	+
Pancreas	M	68.8	83.9	+
	F	56.9	106.5	+
Larynx	M	39.3	142.0	+
	F	37.8	142.2	+
Lung	M	37.8	84.3	+
	F	33.0	73.9	+
Breast	F	81.8	116.9	+
Cervix uteri (invasive)	F	55.4	126.8	+
Cervix uteri (in situ)	F	44.6	115.9	+
Corpus uteri	F	101.2	126.8	+
Ovary	F	73.5	105.0	+
Prostate	M	109.0	126.8	+
Bladder	M	66.3	106.9	+
	F	71.8	117.0	+

+Significant difference at  $p < 0.01$

and bladder) show standard incidence ratios of 43.2 to 44.2 for the Mormon population and 94 to 95.9 for non-Mormon Utahns. The cancer site most closely associated with alcohol consumption, independent of cigarette consumption, is the esophagus, and Mormon men had an SIR of 37.6, as compared to 113.5 for non-Mormon. Overall, these results agree with the large body of evidence already implicating cigarettes and alcohol as carcinogens for several cancer sites.

This assessment included all persons who had any evidence of being a Mormon (including such a statement in an obituary, even if a Church record could not be found). We now know, from several large studies we've done, using random samples of the adult population of Utah, that the use, by Mormons and non-Mormons, of the substances proscribed by the Word of Wisdom is as follows:<sup>5</sup>

<u>Current cigarette smoker</u>	<u>LDS</u>	<u>non-LDS</u>
Male	10.9%	38%
Female	7.2%	39.7%
<u>Current user of alcohol</u>		
Male	16%	64%
Female	17%	60%

Such levels of consumption are compatible with the difference in rates observed between the two groups for those cancers known to be associated with tobacco and alcohol.

Thus, consumption of these substances may account for the differences noted for such sites, except possibly for cancer of the urinary bladder, in which Mormons fare better than other non-smokers. Although not yet demonstrated, it is possible that lower coffee drinking among the Mormons—as in the case of alcohol with cancer of the esophagus—may explain the remainder of the difference in this “tobacco-associated” cancer.

Rates of cancer of the female organs in Utah LDS women were strikingly lower than in other Utah women. In a yet-to-be-published study,<sup>6</sup> we found markedly lower cervical cancer rates in Mormon (as compared to non-Mormon) women, despite findings by previous researchers that implicated high fertility patterns with increased cervical cancer rates (Mormon birth rates are consistently 50–60% above U.S. rates). But, preliminary findings in current research into links between a particular sexually-transmitted infection (herpes simplex virus 2) and cervical cancer, show that cancer risk increases with the number of sexual contacts a woman has, presumably because of increased possibility of exposure to an asymptomatic male carrier. The results of the cervical cancer study show Mormon women to have about half the promiscuity rates of non-Mormons, and that non-Mormon women with cervical cancer are much more likely to report multiple sexual contacts than age-matched, disease-free women. This seems to make a case for the law of chastity, especially applied to both sexes, possibly since chaste males are less likely to be carriers of herpes 2 virus.

Though it is widely believed that breast-feeding is linked with a decreased risk of breast cancer, there is no conclusive evidence supporting this. Whatever benefits derive from breast-feeding (and the authors believe they are substantial), the practice has no proven effect on breast cancer risk. Rather, the age at first full-term pregnancy (the earlier the age, the lower the risk) is one of the strongest determinants of life long breast cancer risk. The tendency for earlier marriage, and thus, first pregnancy, among Mormons explains about half of the low incidence of breast cancer seen in Mormon women.<sup>7</sup> In almost all other populations, a low risk of breast cancer is associated with a high risk of cervical cancer. This, as Table 1 makes clear, is not the case in the LDS women. Again, this will force a rethinking of present hypotheses on the relationship between the two cancers.

Finally, though recent studies seemingly have implicated dietary fat and meat as factors in the origin of colonic and rectal cancers, incidence of these

Table 2. Average annual age-adjusted mortality ratios for major cancer sites among California Seventh-Day Adventists (SDAs) 1958–65, Utah Mormons (LDS) 1968–72, and the General U.S. white population (USA) 1965, age 35 and over, by sex.

Site	Sex	Mortality Ratios	
		SDA/USA	LDS/USA
All sites (excluding skin)	M	50	61
	F	66	57
Smoking associated sites	M	7	45
	F	9	32
Lip	M	—	—
	F	—	—
Esophagus	M	28	40
	F	22	22
Stomach	M	80	62
	F	84	47
Colon	M	57	57
	F	61	49
Pancreas	M	20	74
	F	60	59
Larynx	M	—	17
	F	—	114
Lung	M	4	46
	F	6	51
Breast	F	71	56
Cervix uteri (invasive & in situ)	F	61	34
Corpus uteri	F	22	65
Ovary	F	—	—
Prostate	M	77	86
Bladder	M	20	63
	F	37	41

cancers in Utah Mormons is below that even of the California Seventh-Day Adventists, who claim a 50% compliance with a vegetarian diet.

An interesting comparison of Mormon/Seventh-Day Adventist standardized mortality ratios (SMRs—measuring *deaths* only, rather than total incidence as in SIRs mortality rates) for previous cancer sites comprises Table 2. (In interpreting these results, it is well to remember the Adventists drop all smokers and drinkers from membership.)

While the Adventist data were gathered about ten years before the LDS data, the only cancer with a large enough change in overall national incidence over this time to show much difference would be stomach cancer. Since the Adventists are much stricter in eliminating “backsliders” than Mormons are, their incidence of tobacco-associated cancers is much lower than LDS. However, the similar or lower rates for cancers of the gastrointestinal tract in Mormons simply do not support the hypothesis implicating animal fats as a factor in colon cancer.

There are other cancer sites for which no explanation of Mormon rates is readily obvious: Low rates of stomach cancer for Mormon males (though

smoking may be associated), and high risk of lip cancer, for example, for the same group. Low rates of liver and kidney cancers for all Utah males likewise escape explanation.

It should be noted that the genetic contribution to cancer is not considered large. Breast cancer, likely, has the strongest tendency to cluster in families. Again, what the effect of genetics is in Mormons' favorable health status is not known. The idea that Mormons are more inbred than other populations has been put forward with little data. If this is true, one would expect an increase in the genetic component of cancer, and thus an increase in the LDS incidence, which is not the case.<sup>8</sup>

Table 3. *Standard mortality ratios for cardiovascular and other diseases Utah 1969-71*

	Sex	LDS	non-LDS	Statistical Significance
<i>Cardiovascular</i>				
Rheumatic	M	154.5	163.9	p < .01
	F	151.3	228.4	p < .01
Hypertensive	M	57.1	118.6	p < .01
	F	73.2	104.3	p < .05
Heart attack	M	63.8	88.9	p < .01
	F	64.8	101.3	p < .01
<i>Cerebrovascular</i>				
	M	78.9	88.1	NS
	F	98.5	77.3	NS
<i>Cirrhosis of the liver</i>				
	M	79.0	95.0	p < .01
	F	65.0	149.0	p < .01

### CARDIOVASCULAR AND OTHER DISEASES

In 1978, we also published a study on cardiovascular disease in Utah.<sup>9</sup> Using the same methods for identifying Church members as used in the cancer study, we found Utah Mormons to have 35% less mortality from ischemic heart disease than expected from U.S. rates while non-Mormons did not differ significantly from the U.S. norms. Mormon men also had a lower mortality from hypertensive heart disease (SMR of 57, compared to non-Mormon 119) and Mormon women, a lower mortality from rheumatic heart disease (SMR of 151, compared to non-Mormon 228, though the number of cases is too small to achieve statistical significance). This report substantiated previous reports of links between smoking and heart disease, but lower rates of tobacco consumption in Mormons only explain about half the differences noted, when compared to national non-smoker data. Though theories ranging from hardness of water to church attendance have been suggested in other studies, there is likely some other factor in Utah Mormons, beyond abstinence from tobacco, that operates to reduce deaths from heart attacks.

We also studied strokes (cerebrovascular disease) using the same methods as those used in the cardiovascular disease study. The results demonstrated lower than expected mortality for both LDS and non-LDS groups, with non-

LDS lower (but not statistically so) than LDS. These findings are consistent, to some extent, with our present knowledge of strokes, for which no tobacco effect has been demonstrated. Why Mormons should do well in the case of hypertensive heart disease, but not in the case of strokes which are also associated with hypertension, is not clear. Other factors affecting atherosclerosis are associated with strokes, but they are not well defined.

We also reviewed deaths from cirrhosis of the liver, because of its relationship to alcohol. Our studies in progress show Mormon males to have lower mortality rates from cirrhosis of the liver than non-Mormons (SMRs of 79, compared to 95), but, more surprisingly, Mormon women showed a much lower rate than the elevated mortality rate from cirrhosis shown by non-Mormon Utah women (SMRs of 65, compared to 149).<sup>10</sup> What other diseases may be low in Mormons (or high for that matter)? Elder Widtsoe's publications on the Word of Wisdom list a number of other diseases, many of which presently contribute little to the total mortality of a population (tuberculosis, kidney disease, maternal mortality, and other infectious diseases). We presently have no data as to the comparative incidence or mortality of these conditions in the LDS, and little reason to suppose a religious difference. However, as noted, several of the cancer sites with large differences by religion do not follow from the Word of Wisdom (colon, cervix, breast, etc.) and investigations of these diseases may also yield additional surprises.

Some persistent myths also need to be laid to rest. One myth is that while Mormons don't smoke or drink, they are habituated to sugar and make up for their lack of other vices with ice cream, pastries, etc. Little hard data exist as to relative heights and weights in LDS compared to non-LDS, but the low mortality from heart attacks among LDS is strong evidence against it. Another myth is of high incidence of diabetes. Mortality rates for this disease are not a good measure of occurrence. Again, our surveys of the Utah population show no difference in reported diabetes between LDS and non-LDS. An additional area of research with many more methodological problems might center on reported mental health problems in LDS and non-LDS. One might use mental hospital admissions as an indicator, or possibly suicide rates.

#### NET MORTALITY RATES AND LONGEVITY

What should be evident is that with less cancer and heart disease, Mormons should be living longer. This is substantiated in the study done by Edward Robinson on longevity patterns among Mormons and non-Mormons in the West and the U.S. in general.<sup>11</sup> Table 4 shows that for Mormon males, expectation of life at birth averages over five years more than non-Mormon males, and for Mormon women, over three years more.

In a recent study of seventies and high priests (assuming higher activity and Word of Wisdom compliance), James Enstrom found the active Mormon male to be healthier than Mormons as a whole, and to rank among the lowest in mortality when compared to other groups of healthy U.S. males.<sup>12</sup> While there are yet many questions about the study (such as, do Mormons select healthy individuals in priesthood advancements?), it is at least a preliminary



Table 4. *LDS and non-LDS Expectation of Life at Birth from Life Table Analysis, Utah (1975) and USA (1970) after Robertson.*

	Utah		USA	
	LDS	non-LDS	LDS	non-LDS
Male	72.2	66.4	73.2	67.9
Female	77.7	74.3	78.9	75.6

indication that higher compliance to Mormon standards increases health benefits.

### REMAINING QUESTIONS

The original impetus of our studies was the Mormon proscription of tobacco and alcohol and the lower incidence among Mormons of diseases related to their consumption, correlations which agree with popular scientific opinion. Yet, our studies have shown Mormons also to fare well in a number of diseases not known to be related to tobacco or alcohol. While our personal views of disease etiology lie somewhere on the continuum which runs from tobacco company researchers (who tout the cigarette as a harmless pleasure) to the naturopaths (who implicate most human afflictions, from dandruff to impotence, with poor diet), our research poses some valid and unanswered questions in regard to diet and disease. Is it possible that the lower rate of stomach cancer in Mormons is related to lower coffee consumption, or that some combination of abstinence, home canning, emphasis on whole wheat products, and other dietary considerations explains the lower rates of bowel cancer? As we are able to analyze more precisely the data we are gathering in our large studies of other cancers (colon, cervix, bladder, ovary, etc.), we can estimate the effect, if any, of such other factors (especially coffee and alcohol).

Before a better explanation for these results can be offered, we must answer many questions about the Mormon lifestyle. For example, are stress levels among Mormons different than for non-Mormons in comparable situations? Do sleep, exercise, or eating habits differ? What is the role of the genetic component or increased longevity on certain disease processes? Work being done here and at Utah State University may make possible the extremely difficult task of analyzing a typical diet, thus enabling us to determine whether there are significant Mormon vs. non-Mormon differences and how they correlate with lower rates of bowel cancer and other disease.

Another of our Utah projects approaches the factor of activity as well, but in a different context. Utahns have long enjoyed low infant mortality rates. In a present Mormon/non-Mormon study of this phenomenon, we are selecting active LDS parents by noting children blessed by their fathers, as noted on LDS blessing certificates (assuming such children are more likely to be from active Mormon families). Our early data tend to show that active Mormons may account not only for the very low Mormon rate of infant mortality, but

also for all of Utah's low rate as well. Such results would invite us to seek out the reasons for such an occurrence.

Our initial studies on health in Mormons covered the three diseases which account for about 66% of all deaths in the United States annually—heart disease, cancer, and stroke. In the first two of these, Mormons enjoy a clear advantage over their non-Mormon neighbors, and over the general U.S. population.

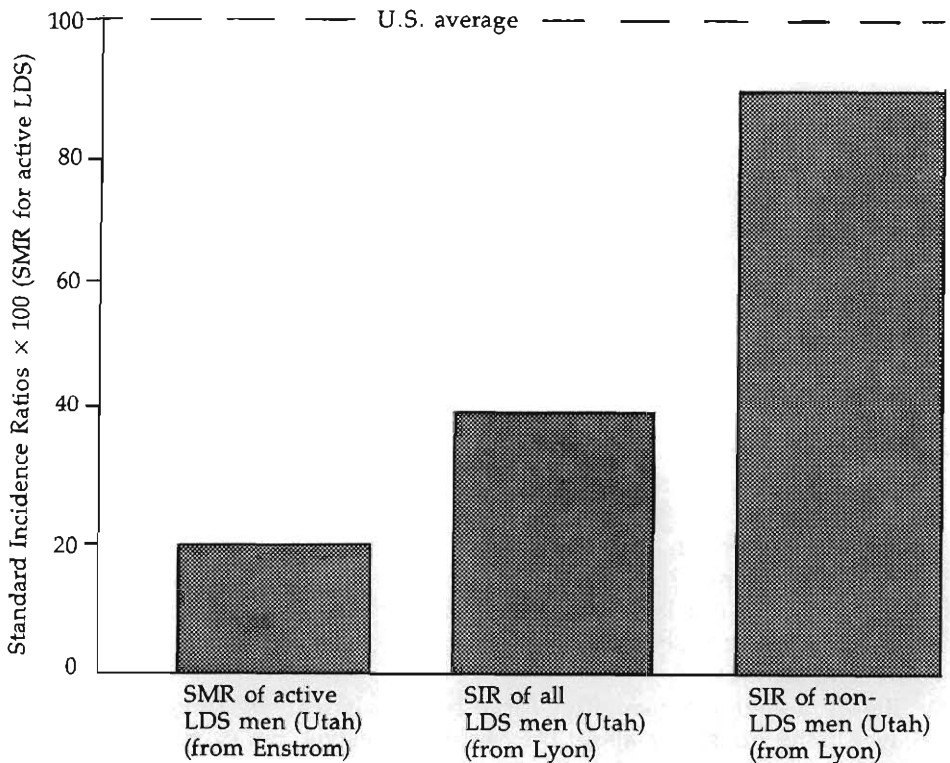


Table 5. *Crude comparison of effect of activity on incidence and mortality from lung cancer in Utah males. Incidence and mortality for lung cancer are very similar because of very low five-year survival rate.*

Abstinence from tobacco (and alcohol) may explain all the differences between Mormons and non-Mormons in cancers known to be tobacco-related, except for bladder cancer, in which an additional factor seems to be at work. Similarly, half of the reduction in heart disease among Mormons probably is attributable to abstinence from tobacco, but another important factor must be at work here as well.

Of the non-tobacco-related cancers for which differences have been found between Mormons and their neighbors, less promiscuity among the LDS may account for the lower rates of cervical cancer. Early age at first birth

among Mormon mothers probably accounts for a significant part of the reduction in breast cancer, but here again another factor must be at work. Differences in the relative incidence of other cancers—be they more (lip) or less (e.g., bowel) common among the Mormons—have yet to be associated with identifiable external factors. In particular, level of meat consumption does not appear to be related to the lower incidence of cancer of the bowel.

It is appropriate to point out that our work is statistical. Pappworth's observation that "Medical statistics are like bikinis, concealing that which is vital, while revealing much that is interesting," reminds us that there is much left to do to draw conclusive links between the Mormon lifestyle and better health. But, taken together, our studies and those of others point to a literal fulfillment of some of the promises of the Word of Wisdom. We believe that in ferreting out the specific reasons for this, we can lay hold of hidden treasures of understanding regarding the human body.

#### NOTES

<sup>1</sup>For an interesting account of how the Word of Wisdom became binding on Church members, initially as an economic measure, see Leonard Arrington's account, "An Economic Interpretation of the Word of Wisdom," *BYU Studies* 1:37-49 (winter 1959).

<sup>2</sup>See Lester Bush's article "Mormon Elder Wafers," *Dialogue* Vol. X, No. 2, p. 89.

<sup>3</sup>Enstrom's data suffered from lack of an accurate age-specific denominator, and thus he made estimates of various age structures for the Mormon population and presented in his paper a range of possible rates given different age structures. A similar problem also plagues Enstrom's 1978 publication on cancer in High Priests and Seventies. Here, he has used 1975 data provided by the Church to estimate population and age structure for an earlier period of time. Our experience with the accuracy of the Church membership computer file has shown up to 15% error in estimating a population at a given point in time. We now use several methods to determine our populations.

<sup>4</sup>Joseph L. Lyon, et al., "Cancer Incidence in Mormons and Non-Mormons in Utah, 1966-1970," *New England Journal of Medicine* 294:129-138.

<sup>5</sup>These data were obtained from two control groups of 900 individuals, drawn by random digit dialing from the adult general population of Utah and age adjusted to reflect the adult population (over age twenty) of the state. The data were obtained by trained interviewers in the home of each respondent, between 1977-78. The overall response rate was 93%. These data are not yet published, but will be the basis of studies comparing LDS and non-LDS for risk factors for cancers of the uterine cervix and colon. We are not aware of any similar data which will stand careful scientific scrutiny. Either the sample was *not* random (cluster, students, volunteers), or the data were obtained in such a way as to introduce bias (interviewers from BYU, asking religion, then information on Word of Wisdom, etc.).

<sup>6</sup>This study was carried out between 1977-78 and involved interviewing all new cases of cervical cancer occurring in the four Wasatch Front counties and an age-matched control group chosen by random digit dialing. Response rates were 86% for controls. Special techniques were used to ascertain sexual history, with over 99% cooperation. The data will be included in a scientific paper to be published in the future.

<sup>7</sup>The data on age at first pregnancy in Mormons and non-Mormons comes from the earlier mentioned studies using the control groups.

<sup>8</sup>In an investigation of the frequency of consanguineous marriages among the Mormons and their relatives (*American Journal of Human Genetics* 8:236, 1956), C.M. Woolf, et al. found that despite the favoring of endogamous marriages by the Mormon society, ". . . the Mormon people in Utah, when compared with other populations in the world, are not inbred in the biologic sense."

<sup>9</sup>Joseph L. Lyon, et al., "Cardiovascular Mortality in Mormons and non-Mormons in Utah, 1969-1971," *American Journal of Epidemiology* 108:357-366.

<sup>10</sup>In this yet-to-be-published study, we took all certified cases of death from cirrhosis in Utah over a three year period and separated them by previously described methods into Mormon and non-Mormon groups.

<sup>11</sup>Edward N. Robertson, "Life Table Analysis of Mormon and Non-Mormon Longevity Patterns in Utah, California, Idaho, and the United States," a thesis, 1977.

<sup>12</sup>James E. Enstrom, "Cancer and Total Mortality Among Active Mormons," *Cancer* 42:1943-1951, 1978.



# NOTES AND COMMENTS

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## *Mormon Medical Ethical Guidelines*

EDITED BY LESTER E. BUSH, JR.

SEVERAL YEARS AGO, James O. Mason, then Church Commissioner of Health, prepared a paper entitled "Attitudes of The Church of Jesus Christ of Latter-day Saints Toward Certain Medical Problems." This document, dated 3 June 1974, consists of nineteen short statements which were all submitted to the First Presidency for approval. These statements were later included in the Solemn Assemblies held in 1976.

The full text of the commissioner's paper is given below, followed by supplemental notes prepared by the editor.

### ATTITUDES OF THE CHURCH OF JESUS CHRIST OF LATTER-DAY SAINTS TOWARD CERTAIN MEDICAL PROBLEMS

#### *Abortion*

The Church opposes abortion and counsels its members not to submit to, perform, nor abet an abortion except in the rare cases where, in the opinion of competent medical counsel, the life or good health of the mother is seriously in danger or where the pregnancy was caused by rape and produces serious emotional trauma in the mother. Even then it should be done only after consulting with the local presiding priesthood authority and after receiving divine confirmation through prayer.<sup>1</sup>

#### *Artificial Insemination*

The Church does not approve of artificial insemination with other than the semen of the husband. Artificial insemination with semen other than from the husband may produce problems related to family harmony. The Church recognizes that this is a personal matter which must ultimately be left to the determination of the husband and wife with the responsibility for their decision resting solely upon them.<sup>2</sup>

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LESTER E. BUSH, JR., is Associate Editor of Dialogue.

### *Birth Control*

The Lord's command imposed upon all Latter-day Saints is to "multiply and replenish the earth." Where husband and wife enjoy health and vigor and are free from inheritable defects that would be entailed upon their posterity, it is contrary to the teachings of the Church artificially to curtail or prevent the birth of children. We believe that those who practice birth control will reap disappointment by and by. The Church feels that husbands must be considerate of their wives who bear the greater responsibility not only of bearing children, but of caring for them throughout childhood. To this end the mother's health and strength should be conserved and the husband's consideration for his wife is his first duty, and self-control should be a dominant factor in all of their relationships.<sup>3</sup>

### *Dissection and Autopsies*

The Church does not object to the performance of autopsies upon deceased persons, providing that the applicable laws governing autopsies are complied with and that the loved ones of the deceased give their consent.

### *Prolongation of Life and Right to Die*

The Church does not look with favor upon any form of mercy killing. It believes in the dignity of life and that faith in the Lord and medical science should be appropriately called upon and applied to reverse conditions that are a threat to life. There comes a time when dying becomes inevitable; when it should be looked upon as a blessing, and a purposeful part of mortality.

### *Organ Transplants*

The question of whether one should will his bodily organs to be used as transplants or for research after death must be answered from deep within the conscience of the individual involved. Those who seek counsel from the Church on this subject are encouraged to review the advantages and disadvantages of doing so, to implore the Lord for inspiration and guidance, and then to take the course of action which would give them a feeling of peace and comfort.<sup>4</sup>

### *Religion and Healing Process ("Faith Healing")*

The Church believes in the same manifestations of the Spirit, including healing, that existed in the Church organized by the Savior during His earthly ministry. Through Latter-day revelation the Lord has directed:

"... And the elders of the Church, two or more, shall be called, and shall pray for and lay their hands upon them (the sick) in my name; and if they die they shall die unto me, and if they live they shall live unto me."

### *Sunday (Sabbath) Observance*

The Church accepts the commandment given by the Lord that men are to rest from all temporal work and to worship the Lord one day each week. Sunday is the day set aside by the Church to observe the Sabbath. Rest on this day, though important, is incidental to the true purpose of the Sabbath

which is to worship, to learn more about the Lord, to renew covenants with Him and to feed our souls upon the things of the Spirit.

#### *Dietary Laws*

The Church's law pertaining to proper diet and care of the body is contained in a revelation given to the Prophet Joseph Smith under date of February 27, 1833. That revelation admonishes Church members to use judgment and temperance in the use of all food and drink. It prohibits the use of alcoholic beverages, hot drinks (interpreted to mean tea and coffee) and tobacco. It also prohibits the use of all other substances which may be injurious to the body or which might be said to be in violation of the spirit of the revelation. It also encourages the sparing use of meats but prohibits none outright. On the affirmative side, this health code encourages the eating of all fruits and vegetables and encourages the use of whole grain.<sup>5</sup>

#### *Sterility Tests*

The Church believes that having children is a blessing and privilege and, that with any abnormal condition, it is appropriate to use medical science to diagnose and restore normal function.

#### *Religious Sacrament*

Within the beliefs of the Church, the term "sacrament" refers only to the celebration of the Lord's Supper wherein bread and water are blessed and partaken of in symbolic remembrance of the flesh and blood of the Savior and by the way of recovenant by the partaker to adhere to the Savior's teachings. The Church ordinance specifically related to the sick or dying is the laying on of hands by the elders for the healing of the sick (see Religion and Healing process).

#### *Burial of Fetus*

The Church has no official service for the burial of the fetus. What is done would depend upon the age and size of the fetus and the attitude of the parents, after discussion with their bishop.

#### *Cremation*

The Church has never encouraged cremation as a method of disposing of the remains of the dead. It believes it is proper to consign them to mother earth which has always been the custom. Although cremation is discouraged, the local laws must be observed and the final decision left with the family and the loved ones.

#### *Attitudes Toward Narcotics, Vaccines, Blood, etc.*

The Church regards the use of these substances, as prescribed under medical supervision for the treatment or prevention of disease, as wholly a medical question.<sup>6</sup>

#### *Homosexuality*

The Church looks upon the homosexual act as a physical perversion, and Church leaders are advised to approach those who engage in this practice in the true spirit of the gospel of love and understanding in an effort to assist

them and persuade them that repentance can bring them forgiveness from such transgressions.<sup>7</sup>

#### *Experimentation*

The Church recognizes the need for carefully conducted and controlled experimentation to substantiate the efficacy of medicines and procedures. We believe, however, that the free agency of the individual must be protected by informed consent and that a qualified group of peers should review all research to ascertain that it is needed, is appropriately designed and not harmful to the person involved.

#### *Sterilization*

The Lord's commandment imposed upon all Latter-day Saints is to "multiply and replenish the earth." Nevertheless there may be medical conditions related to the health of the mother where sterilization could be justified. But such conditions, rare as they may be, must be determined by competent medical judgment and in accordance with laws pertaining thereto.<sup>8</sup>

#### *Blood and Blood Products*

See *Attitude Toward Narcotics, Vaccines, Blood, etc.*

#### *Hypnosis*

The Church regards the use of hypnosis under competent, professional supervision for the treatment of disease as wholly a medical question. The Church advises members against participation in hypnosis demonstrations.

### NOTES

<sup>1</sup>Of all medical ethical guidelines published by the Church, those relating to abortion are the most emphatically stated. Offenders, be they doctor, patient, or abettor, are subject to excommunication. Mission presidents are advised to ask prospective converts, during pre-baptismal interviews, if they have previously submitted to an abortion, and to provide special counseling to those who have. Male members who have "advised, encouraged, consented to, or arranged for the performance of an abortion growing out of their immoral conduct" are not called on full-time missions, nor are women who have submitted to abortions under similar circumstances. Ironically, while abortions are *not* condoned even where the fetus is known to be malformed, the Church has taken no stand on the subject of performing or undergoing amniocentesis as an antenatal check on the status of the fetus—a procedure for which there is virtually no justification if abortion is not considered an acceptable alternative.

The full text of the most recent First Presidency statement on the subject of abortion states:

The Church opposes abortion and counsels its members not to submit to, be a party to, or perform an abortion except in the rare cases where, in the opinion of competent medical counsel, the life or health of the woman is seriously endangered or where the pregnancy was caused



by forcible rape and produces serious emotional trauma in the victim. Even then it should be done only after counseling with the local bishop or branch president and after receiving divine confirmation through prayer.

Abortion is one of the most revolting and sinful practices in this day, when we are witnessing the frightening evidence of permissiveness leading to sexual immorality.

Members of the Church guilty of being parties to the sin of abortion are subject to the disciplinary action of the councils of the Church as circumstances warrant. In dealing with this serious matter, it would be well to keep in mind the word of the Lord stated in the 59th Section of the Doctrine and Covenants, verse 6, "Thou shalt not steal; neither commit adultery, nor kill, nor do anything like unto it."

As far as has been revealed, the sin of abortion is one for which a person may repent and gain forgiveness. (July 1976)

<sup>2</sup>More recent guidance on this subject has been somewhat more lenient. The latest First Presidency statement, given 19 April 1977, advises:

The Church discourages artificial insemination with other than the semen of the husband. Artificial insemination with semen other than the husband may produce problems related to family harmony. The Church recognizes that this is a personal matter which must ultimately be left to the determination of the husband and wife with the responsibility for their decision resting solely upon them.

A child born by means of artificial insemination after parents are sealed in the temple is born in the covenant. A child born by artificial insemination before parents are sealed may be sealed subsequent to the sealing of parents.

<sup>3</sup>The only officially released statement of the First Presidency in recent years on the subject of birth control remains that of 14 April 1969:

The First Presidency is being asked from time to time as to what the attitude of the Church is regarding birth control. In order that you may be informed on this subject and that you may be prepared to convey the proper information to the members of the Church under your jurisdiction, we have decided to give you the following statement:

We seriously regret that there should exist a sentiment or feeling among any members of the Church to curtail the birth of their children. We have been commanded to multiply and replenish the earth that we may have joy and rejoicing in our posterity.

Where husband and wife enjoy health and vigor and are free from impurities that would be entailed upon their posterity, it is contrary to the teachings of the Church artificially to curtail or prevent the birth of children. We believe that those who practice birth control will reap disappointment by and by.

However, we feel that men must be considerate of their wives who bear the greater responsibility not only of bearing children, but of caring for them through childhood. To this end the mother's health

and strength should be conserved and the husband's consideration for his wife is his first duty, and self-control a dominant factor in all their relationships.

It is our further feeling that married couples should seek inspiration and wisdom from the Lord that they may exercise discretion in solving their marital problems, and that they may be permitted to rear their children in accordance with the teachings of the gospel.

Additional background on Church teachings on birth control and abortion is provided in Lester E. Bush, Jr., "Birth Control Among the Mormons: Introduction to an Insistent Question," *Dialogue* 10(2):12-44 (Autumn 1976).

In response to an inquiry to the Church's Public Communications Department, the following statement by the First Presidency on the related subject of sex education was provided, without date:

We believe that serious hazards are involved in entrusting to the schools the teaching of this vital and important subject to our children. This responsibility cannot wisely be left to society, nor the schools; nor can the responsibility be shifted to the Church. It is the responsibility of parents to see that they fully perform their duty in this respect.

<sup>4</sup>The text is identical to a private response by the Secretary to the First Presidency, as authorized by them, in October 1970.

<sup>5</sup>There is only one official, general statement of Mormon dietary laws: Section 89 of the Doctrine and Covenants, alluded to in the Commissioner's statement. Key passages, known verbatim by many Mormons, include:

That inasmuch as any man drinketh wine or strong drink among you, behold it is not good. . . And, again, strong drinks are not for the belly, but for the washing of your bodies.

And again, tobacco is not for the body, neither for the belly, and is not good for man. . .

And again, hot drinks are not for the body or belly. . . .

. . . all wholesome herbs God hath ordained for the constitution, nature, and use of man—Every herb in the season thereof, and every fruit in the season thereof. . . Yea, flesh also of beasts and of the fowls of the air, I the Lord, have ordained for the use of man with thanksgiving; nevertheless they are to be used sparingly; And it is pleasing unto me that they should not be used, only in times of winter, or of cold, or famine.

All grain is ordained for the use of man and of beasts, to be the staff of life . . . All grain is good for the food of man; as also the fruit of the vine; that which yieldeth fruit, whether in the ground or above the ground. . .

While there has been considerable discussion over the years as to the specific application of some of the guidelines in this Word of Wisdom, no official First Presidency statements have been issued publicly on the subject.

From the first decades of the twentieth century, however, the First Presidency has instructed local leaders that members who do not abstain from coffee, tea, tobacco and alcohol should not be given the priesthood, sent on missions, admitted to the temple, or given leadership positions in local congregations.

The rare instances in which official statements have been released publicly have generally been directed at legislation relating to the availability of alcohol or tobacco. Perhaps the most recent example was a statement of 21 October 1973, in opposition to a referendum which would have permitted 19-year-olds to purchase and consume alcohol in the state of Washington.

Somewhat less certain, and certainly less vigorous, has been the counsel on the subject of "hot drinks." Although early interpreted to refer to coffee and tea, some nineteenth century observers felt that it was the "heat" of the drinks as much as their contents which was the cause for alarm. Thus, one occasionally finds individuals counseling against hot cocoa or hot soup in early sermons or letters. In the twentieth century those who have generalized from the most narrow interpretation have asserted that it is the caffeine and related chemicals in coffee and tea that are the basis for the early advice. The most conspicuous advocate of this notion was Apostle John A. Widtsoe, and largely as a result of his influence there has for several decades been a belief, widely held among Mormons, that caffeine-containing drinks such as colas were implicitly proscribed by the Word of Wisdom. Widtsoe felt that such caffeine-containing items as cocoa and chocolate should be condemned as well, but this further extension has not achieved the same popularity as the movement against colas. None of these generalizations were ever accorded the status of an official endorsement by the First Presidency. The Presidency has, however, advised private inquirers at least since the 1930s that partaking of "decaffeinated" drinks was *not* to be considered in violation of the Word of Wisdom. Such guidance has specifically singled out such "97% caffeine free" products as Sanka coffee as examples of acceptable items. Regarding colas, the Presidency advised Church leaders through the *Priesthood Bulletin* in February 1972:

The Word of Wisdom, section 89 of the Doctrine and Covenants, remains as to terms and specifications as found in that section. There has been no official interpretation of that Word of Wisdom except that which was given by the Brethren in the very early days of the Church when it was declared that "hot drinks" meant tea and coffee.

With reference to cola drinks, the Church has never officially taken a position on this matter, but the leaders of the Church have advised, and we do now specifically advise, against the use of any drink containing harmful habit-forming drugs under circumstances that would result in acquiring the habit. Any beverage that contains ingredients harmful to the body should be avoided.

Little to no official public attention has been given to other elements of the Word of Wisdom, and the sanctions currently applied to those violating the proscriptions against coffee, tea, tobacco, and alcohol are not applied to

heavy meat eaters or those otherwise in violation of the "spirit" of the Word of Wisdom. Nor are there sanctions for drinking cola drinks. Regarding the latter point, it is of interest to note that "science" is considerably less sure about the deleterious effects of small amounts of caffeine than they appear to have been in Widtsoe's day. Taken in moderation by people in generally good health, caffeine-containing drinks have yet to be convincingly implicated as a cause of disease. (A better case may yet be made against consuming drinks of high temperature!)

No comprehensive study of Mormon teachings on the Word of Wisdom has been published. Much useful information is contained in Paul H. Peterson, "An Historical Analysis of the Word of Wisdom," unpublished MA Thesis (Brigham Young University, 1972); Leonard J. Arrington, "An Economic Interpretation of the 'Word of Wisdom,'" *BYU Studies* 1:37-49 (Winter 1959); and Thomas G. Alexander's forthcoming study of *The Early Twentieth Century, 1900-1930*, a volume in the projected sesquicentennial Church history.

<sup>6</sup>The Presidency nonetheless has, in recent years, issued endorsements of several vaccination programs. In September 1976 a statement was released on the massive federal program to vaccinate against A-New Jersey (Swine) Influenza. In part, the statement read,

Church members are encouraged to carefully consider the potential benefits and risks of this vaccination to the health of themselves and their families. Special considerations should be given to the protection of those who are ill or convalescent. We encourage Church members to seek competent medical advice with questions they may have. . .

Members of the Church who are technically qualified and who feel so inclined are encouraged to provide what community service they can to assist with this influenza immunization campaign.

Even stronger was a subsequent statement on childhood immunizations:

Reports that increasing numbers of children are not being immunized against preventable childhood diseases deeply concern us. In the United States alone approximately 20 million children, 40 percent of those 14 years old or younger, have not been adequately immunized against polio, measles, German measles (rubella), diphtheria, pertussis (whooping cough), mumps and tetanus.

Every parent who has agonized when these diseases have maimed or brought premature death to their children would join us, we are certain, in a plea to mobilize against these deadly enemies.

Immunization is such a simple, yet vital, matter and such a small price to pay for protection against these destroying diseases.

We urge members of The Church of Jesus Christ of Latter-day Saints to protect their own children through immunization. Then they may wish to join other public-spirited citizens in efforts to eradicate ignorance and apathy that have caused the disturbingly low levels of childhood immunization.

Failure to act could subject untold thousands to preventable lifelong physical or mental impairment, including paralysis, blindness, deafness, heart damage, and mental retardation.

Immunization campaigns in the United States and other nations, if successful, will end much needless suffering and erase the potential threat of epidemics. Such efforts are deserving of our full support. (5 May 1978)

A second public health campaign is apparently seen in a somewhat more guarded light. On the question of fluoridating the public water supply by the Utah State Board of Health (a proposition thus far rejected by Utah voters on thirteen occasions), the Presidency advised on 13 May 1972:

Questions are being asked regarding the Church's position on fluoridation of public water supplies to prevent tooth decay. As with other non-moral issues which may be under consideration or be brought before the voter by referendum, we reiterate the advice given by leaders of the church from time to time that it is the duty of every citizen to act in accordance with his or her convictions.

We have not in the past, nor do we now, seek to bring coercion or compulsion upon the church as to their actions. On the contrary, we have urged and do now urge that all citizens study the issue carefully and then act according to their honest convictions.

Those interested in the Utah response to public health problems should consult Joseph R. Morrell, *Utah's Health and You: A History of Utah's Public Health* (Salt Lake City: Deseret Book, 1956); an interesting recent study is Richard B. Dwore, "A Case Study of the 1976 Referendum in Utah on Fluoridation," *Public Health Reports* 93:73-78 (January-February 1978).

<sup>7</sup>The previous year the First Presidency had advised, through the *Priesthood Bulletin*, February 1973:

A homosexual relationship is viewed by The Church of Jesus Christ of Latter-day Saints as a sin in the same degree as adultery and fornication.

In summarizing the intended destiny of man, the Lord has declared: "For behold, this is my work and my glory—to bring to pass the immortality and eternal life of man." (Moses 1:39.) Eternal life means returning to the Lord's exalted presence and enjoying the privilege of eternal increase. According to his revealed word, the only acceptable sexual relationship occurs within the family between a husband and a wife.

Homosexuality in men and women runs counter to these divine objectives and, therefore, is to be avoided and forsaken. Church members involved to any degree must repent. "By this ye may know if a man repenteth of his sins—behold, he will confess them and forsake them." (D&C 59:43.) Failure to work closely with one's bishop or stake president in cases involving homosexual behavior will require prompt Church court action.

<sup>8</sup>A supplemental comment on vasectomy was delivered in the 1976 Solemn Assemblies, after a verbatim recitation of the Commissioner's statement. "Vasectomy" was defined at the time as "a surgical excision of the spermatic duct to induce permanent sterility."

We deplore the fact that members of the Church should take such measures to render themselves incapable of further procreation. It is a terrible thing, to say the least, and the more serious the offense the more severe the penalty should be. The question of whether or not a temple recommend should be issued to someone who has had a vasectomy should be determined by the local leaders based upon their consideration of the underlying circumstances and appraisal of whether or not there has been true repentance.

# *Intersexes in Humans: An Introductory Exploration*

DUANE E. JEFFERY

"SO GOD CREATED MAN in his own image . . . male and female created he them." Gen. 1:27.

A weird happening has occurred in the case of a lansquenet [soldier] named Daniel Burghammer. . . When the same was on the point of going to bed one night he complained to his wife, to whom he had been married by the Church seven years ago, that he had great pains in his belly and felt something stirring therein. An hour thereafter he gave birth to a child, a girl. . . He then confessed on the spot that he was half man and half woman. . . He also stated that . . . he only slept once with a Spaniard, and he became pregnant therefrom. This however, he kept a secret unto himself and also from his wife, with whom he had for seven years lived in wedlock, but he had never been able to get her with child. . . The aforesaid soldier is able to suckle the child with his right breast only and not at all on the left side, where he is a man. He has also the natural organs of a man for passing water. . . All this has been set down and described by notaries. It is considered in Italy to be a great miracle and is to be recorded in the chronicles. The couple, however, are to be divorced by the clergy.—From Piacenza in Italy, the 26th day of May, 1601.<sup>1</sup>

The history of human intersexes<sup>2</sup> extends far back into antiquity. Their existence is probably as old as the species, yet they are not well understood. Few if any societies have been comfortable with the issues they raise. Persons whose sexual identity have been unclear traditionally have been ostracized individually and ignored collectively.

Modern research, turned toward the serious study of intersexuality and related conditions in only the past three decades or so, has found the subject

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DUANE E. JEFFERY is Associate Professor of Zoology, Brigham Young University.

to be poignantly complex. This essay is only a brief introduction; it is not possible to explore adequately even one of many specific conditions. Readers interested in more detailed information should consult the works cited in the bibliography.

The very existence of human intersexes poses some interesting unanswered questions in LDS traditions and beliefs. Traditional LDS expressions on gender identity also fall short of embracing the complexity demonstrable in the real biological world. Sex, as traditionally posited, is an immutable characteristic of an eternal spirit, of which the mortal body is only a tabernacle. The body is in the image of the spirit, and it is tacitly accepted that this extends to sexual characteristics. An increasing body of medical data, however, gives one considerable cause to reflect on the precise nature of that relationship. Whatever theoretical role may be ascribed to the influence of the spirit, it is a biological reality that sex determination, in the physical body at least, is affected by and almost certainly controlled and determined by genetic and hormonal means, in other words, it not only has a physical basis of identifiable dimensions, but it is subject to considerable malfunction and reversal.

#### *DETERMINATION OF SEX*

In many organisms, both animals and plants, the genetic systems responsible for sexual differentiation (into 0, 1, 2 or up to 10 separate sexes) is well understood, and scores of different systems exist. Sexual differentiation may be controlled by a single gene or gene pair, by complete chromosomes or by purely environmental differences. The system typical of mammals (and thus humans) is basically one of chromosomally-determined sex. The female mammal possesses two special chromosomes designated as X chromosomes. The male typically possesses only one X, but also carries a Y chromosome. In mammalian eggs or sperm (collectively termed gametes), only half the chromosomes are usually present. Eggs produced by the female typically carry one (and only one) X chromosome; sperm may be either X-bearing or Y-bearing. Normally the sex of the offspring is determined, therefore, by the sperm. If fertilization is by an X-bearing sperm, then the resulting XX embryo will usually become a female; if by a Y-bearing sperm, the resulting XY embryo will ordinarily become a male. The system is simple—but fraught with potential malfunctions.

One source of difficulty is that the chromosomes do not always sort themselves out properly during gamete formation. Either excess or insufficient numbers of chromosomes can be packaged into any given egg or sperm. For example, one encounters persons with one X chromosome only—designated “XO.” Individuals with other combinations are also known, including XXX, XXXX, XXXXX, XXY, XXXY, XXXXY, XYY and XXXYY. In general, any chromosome set carrying a Y chromosome will produce a male or at least male-like individual, though increasing numbers of X chromosomes in the above combinations generally lead to increasing “femaleness” in the male: development of breasts, widening of the pelvis, changes in pubertal hair



patterns, alteration of genitalia, etc. Conversely, persons lacking a Y chromosome are typically females (though atypical numbers of X are associated with varying degrees of sterility and mental dysfunction). What causes these unusual assortments of chromosomes? For experimental organisms, various precise answers are possible, including temperature, radiation, certain chemicals and advanced parental age. For humans, only advanced maternal age (increasing from age thirty-five on) has been reliably implicated and that for only some combinations.

There are also persons whose bodies are mosaics of chromosome constitutions—some cells containing one chromosome pattern, others containing another. These present a wide variety of combinations, even to a person with six separate types of cells: XXX/XXXXY/XXXX/XXXXY/XXXXX/XXXXY. Particularly interesting are those mosaics with combinations which opt for opposite sexual makeups: XX/XY, XX/XXY, XO/XY. Their physical characteristics will vary depending on a number of things; one of these is which specific body tissues are composed of each given chromosome combination. The group manifests a spectrum of body types, ranging from essentially normal females to essentially normal males. In between, of course, are those whose bodies are not clearly one sex or the other, but with the characteristics of both.

There is another significant category of individuals whose intersexual nature is unrelated to some unusual combination of chromosomes—those whose chromosomes appear to be numerically and structurally normal. Some knowledge of the development of the human embryo is important.

#### DEVELOPMENT OF SEX CHARACTERISTICS FROM EMBRYO TO PUBERTY

For the first several weeks of life, both sexes develop alike. The human embryo at the age of six weeks gives no anatomical evidence of which sex it will be. At this indeterminate stage, a series of structures common to both sexes has been produced. Even the primitive gonads, the "ovotestes," are each part female tissue (ovarian) and part male (testicular). Normally, one part of each gland will proliferate to form a functional gonad of the appropriate sex. But even under normal conditions, remnants of the "opposite" sex tissue remain in the gonad of both males and females.

Ordinarily, as the gonads develop they release hormones which trigger and coordinate the development of the related organs and external genitalia. This interplay of hormones is not simple because each sex normally releases low levels of the hormones characteristic of the opposite sex. The hormonal system of the brain is involved as well. Not only must the hormones be produced and released properly into the bloodstream, but the recipient cells of the genitalia must detect and respond to them at appropriate times and in precise ways. There are myriad points at which normal development may go awry and intersexes be produced. We cannot review all the known specific types; an examination of a few generalized ones will suffice.

First, there is a specific genetic condition which converts XY embryos, normally destined to be males, into females. It is usually called *testicular*

*feminization*, or sometimes *androgen insensitivity*. Even when the testes form normally and release the usual masculinizing hormones, the cells which should form the remainder of the reproductive structures do not respond to these hormones. Without the masculinizing hormones, the embryo tends to produce a "female" baby. Externally, such babies usually look perfectly normal; they are considered girls, and are raised as girls. No one has any reason to label them otherwise. They usually come to medical attention when, in spite of often normal pubertal female development, they fail to menstruate. Examination usually reveals no uterus or fallopian tubes—and a pair of testes in the abdominal position where ovaries would ordinarily be. Despite the testes and the XY chromosome constitution, such persons almost invariably consider themselves females: they were raised that way, they marry that way and there is no legitimate reason to question that identification. Where the vagina is too underdeveloped for normal coital function, corrective surgery is performed, and by adopting children, these women become successful mothers.

Another genetic condition, *adrenogenital syndrome*, is in some ways the opposite of testicular feminization: it converts XX embryos into males, or into a wide variety of sexual expressions ranging from clear-cut maleness to unquestioned femaleness. (As an aside, even though the sexual identity is often frustratingly confusing, there is considerable evidence that these persons have higher intelligence than normal.) Babies born with this syndrome are somewhat a "family choice"; they can be raised as either males or females. Since the children are XX, the gonads are usually ovaries. However, due to the abnormal production of a particular body hormone, the embryo becomes to some degree masculinized. At birth the doctor can be presented with equivocal external genitalia: Does this baby possess a small penis, or a large clitoris? Is this a male urethra that is not fully closed, or labia minora abnormally fused? An imperfect scrotum, or imperfect labia majora? Words cannot convey the enigma of these cases, only photographs or actual observation can do that. (The works listed by Money, and Money and Ehrhardt contain excellent illustrations.)

Although doctors differ, there does seem to be a general rule of thumb: If there is sufficient penile tissue to form an essentially normal and functional penis, the child should be raised as a boy. If not, surgery should promote the femaleness. In most cases hormone therapy is necessary and desirable, regardless of the chosen sex, to promote more normal body formation. With sufficient surgery, proper hormonal therapy and conscientious treatment by parents and family, these persons can enjoy an essentially normal adult life, marrying and rearing children (adopted, if necessary). The critical point is that persons with this syndrome can be either males or females. The condition is famous for its incredible plasticity.

Some persons with adrenogenital syndrome are raised throughout childhood as one or the other sex (based on medical sex declaration at the time of birth), but during puberty shift to the opposite sex in both body conformation (though not a total shift of genitalia) and self-image. (See Money's article on "Matched Pairs.")

The foregoing syndromes have involved intersexuality in which at least the gonadal condition has been relatively clear, once internal investigation has been made. There are also cases of "true" intersexuality (or true hermaphroditism) in which a single individual possesses gonadal tissue of both sexes. Though rare, medical literature now chronicles several hundred such persons. For more than one hundred, adequate chromosomal analyses have been made. The majority possess normal-appearing XX or XY constitutions; the remainder are primarily mosaics, e.g., XX/XY. Some of the latter, evidence indicates, began life as two separate embryos, one XX and normally destined to become a normal female, the other XY and potentially male. But the two embryos fused, forming one person, a mosaic true hermaphrodite. The condition has several other causes also and is manifest in a wide variety of body types, from near-normal maleness to near-normal femaleness. The external genitalia and associated internal ductwork and gonads can come in almost every imaginable combination. Again, depending on the specific details, these persons can be reared as either males or females. Corrective surgery and hormone substitution therapy are used to bring a more harmonious expression of the desired sex.

#### *SEX CHANGE DUE TO MEDICAL/PSYCHOLOGICAL TREATMENT*

Beyond these naturally occurring phenomena, babies also have been inadvertently shifted from apparent normality to intersexuality by well-intended medical treatments. A few years ago, a particular hormone therapy was used in the treatment of mothers who had a history of miscarriages. Quite unexpectedly, the hormones (progestins) masculinized female fetuses. Usually only an enlarged clitoris resulted, but in rare instances, a complete and well-formed penis (and empty scrotum) were formed. These children possessed ovaries, and nearly all have been raised as girls. Beyond feminization of the genitalia, no further surgery was required. This well-intended but unfortunate hormonal treatment, short-term though it was, emphasizes the plasticity of these physical aspects of sexual differentiation.

Thus far this article has considered anatomical features. Critical but exceedingly complex developments involving the brain and personal self-image go far beyond the scope of this discussion. A host of data shows that the manner of rearing, and the family behavior and structure can affect and alter gender identity. Some of the most dramatic cases are those of identical male twins who express different gender identities: one male, one female (cf. Green). One specific illustration is particularly thought-provoking. At the age of seven months, a pair of identical male twins were circumcised. Through a mishap, on one of the boys the penile tissue was totally lost. For ten months the parents wrestled with this problem, then began a program aimed at a complete switch of gender, including a change of name, girl's clothing and hair style. At 21 months, surgery for feminization of the external genitals was completed, and the child has since been raised as a girl. Now, after 14 years, the child shows every evidence that the program has been successful, and that her gender identity is fully comparable to normal

females. This case is not unique. There are others on record, though the presence of an identical twin makes this one especially valuable for study.

Readers who wish to pursue the literature further would do well to begin with the paperback book by Money and Ehrhardt. Their file of case histories (primarily at Johns Hopkins Hospital and School of Medicine, the world's premier research and therapy unit for these conditions) is a gold mine of data. Green's book is a well-written introduction to the field.

Gender identity, thus, is produced by an interaction of many factors, including at least the following: gene and chromosomal makeup, response of the fetal gonad, fetal and pubertal hormonal milieu, specific development of body and genitals in the fetus and in puberty, possible brain dimorphism, one's own body image and the behavior of other persons toward the developing child. Are there other factors also?

#### FROM A THEOLOGICAL VIEWPOINT

Consider a testicular-feminized "female," who would be male but for one anomalous gene among the 100,000 or so which comprise humans. Does this body house a male, or a female, spirit? Such persons possess Y chromosomes and testes, yet they consider themselves female; they marry as females, adopt children—and are sealed as females in the temple. What are the eternal implications? Some persons with "adrenogenital" syndrome have been raised male, and some female. They, too, can marry and participate in the sacred ordinances. Have we articulated a theology to embrace this reality?

Some commentators have suggested that such "accidents" do not occur among Mormons, an erroneous statement presumably designed to resolve a perceived paradox. In fact, in a church of four million there are undoubtedly hundreds of such cases. Conservative estimates of the incidence among the general populace of chromosomal abnormalities per live births are for XXY, 1/800 male births; for XYY, 1/700 males; for XXX, 1/1000 females; for XO, 1/3,000 females (over 90% of which are naturally—spontaneously—aborted). Reliable figures for the incidence of the gene-caused syndromes (testicular feminization, adrenogenital syndrome, and related examples) are virtually impossible to obtain, but it is defensible to conclude that the major intersex conditions collectively account for at least one in each 25,000 persons, with minor anomalies being considerably more frequent.

There are other significant questions inherent in this challenging corner of human experience. As Mormons, we tend to emphasize that the body is the servant of the mind, or at least that it should be; that the body should reflect the wishes and higher aspirations of the mind; that the mind, in turn, can be equated with the spirit. In recent years, medical science has acknowledged for the first time the real problems of persons whose bodies are identifiably one sex—with or without the physical or hormonal miscues identified above—but whose minds are that of the opposite sex. In these cases, the mind/body guidelines have often been reversed. The ecclesiastical counsel frequently given to such persons is that the *body*, not the mind, is the man-

ifestation of God's will, and that by some means they should subject their minds to the morphology of their bodies. Is this an appropriate expression of the mind/spirit/body trichotomy? How does this relate to cases where gonadal tissue and body morphology of *both* sexes are expressed? Do our answers deal with the range of expression in such cases as adrenogenital syndrome?

"Authoritative" statements on this subject from the presiding authorities of the Church are too few and too oblique to permit or to justify analytical review. One can, if one is so inclined, string together a few public utterances which, though not specific, may be made to reflect a certain impatience with the problem. But this would be an injustice, for specific private communications and handling of individual cases reveal a much more cautious and sensitive approach.

It is surpassingly difficult for those of us with no gender problems to empathize with those who possess them; nevertheless, a genuine Christ-like commitment demands that we learn to do so. A sensitive and informed counselling program will require the thoughtful fusion of an inspired theology with an increasing wealth of biological understanding,—which is, after all, only revelation through another channel.

#### NOTES

<sup>1</sup>*The Fugger News-Letters*, ed. Victor Von Klarwill, p. 242-43.

<sup>2</sup>I have chosen to use the word "intersex" to indicate those conditions where normal gender identity is thrown into confusion but which are usually considered somewhat neutral under certain social mores and to facilitate consideration of the issues in an objective and sensitive manner. As I use the term, it does not include transvestism or homosexuality (male or female).

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# *Polygamous Eyes: A Note on Mormon Physiognomy*

GARY L. BUNKER AND DAVIS BITTON

RUTH BENEDICT PERCEPTIVELY OBSERVED: "The first lesson of history . . . is that when any group in power wishes to persecute or expropriate another group, it uses as justification, reasons which are familiar and easily acceptable at the time."<sup>1</sup> Occasionally scientific theories, or ideas masquerading as such, have been used as justification for persecution or prejudice. In such instances, the stature of science has been a particularly effective, though insidious, means of legitimization. During the nineteenth century four of the antecedents of contemporary psychology—mesmerism, physiognomy, humoral psychology and phrenology—were used by their practitioners, journalists, novelists and the lay public to sanction stereotypes of certain racial, ethnic and religious groups.<sup>2</sup>

Each of the four systems of thought was rooted, more or less, in a biological tradition which lent itself to racial explanations by seeming to ground the alleged behavior of unpopular groups in inherent physical characteristics. Even when the group had no uniform national or racial origin, as in the case of Mormons, the cause of behavior was often reduced to some organic source and generalized to the group as a whole.

The application of mesmerism and phrenology to the Mormons has been discussed elsewhere.<sup>3</sup> In this brief note, the popular view of Mormon physiognomy will be considered.

The "Mormon eye" with its mesmeric powers was once as notorious a symbol of Mormonness as the "Jewish nose" of Jewishness. "Glittering eyes," "piercing looks," "gaze of the serpent-charmer," "fascinating eyes," "eagle eye," "deep dark eyes," "terrible eyes," "fiery eyes," were all descriptive phrases which added to the fear of Mormons and further associated them

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GARY L. BUNKER is Professor of Psychology, Brigham Young University.

DAVIS BITTON is Professor of History, University of Utah.

## POLYEROTICITY.—POLYGAMY.

### THE DISPOSITION TO LOVE MANY.

*The amount of love for the opposite sex may be known by the fulness of the eyes, and its quality by the shape of the commissures, or opening between the lids of the eyes. When the opening is quite almond-shaped, promiscuous love prevails in that form; if the commissure has great vertical measurement, the love is connubial.*



Illustration 1: From *Physiognomy Illustrated or Nature's Revelations of Character*, p. 163

with the occult and untrustworthy. A writer for *Harper's Weekly* captured the essence of this theme:

I have never yet seen a Mormon but that something ailed his eyes. They are sunken, or dark, or ghastly, or glaring. There is certainly some mania in all Mormon eyes; none of them can look you straight or steadily in the face.<sup>4</sup>

Most of this preoccupation with eyes was a function of the linkage of Mormonism with mesmerism, but physiognomists were equally interested in the Mormon eye. For them it was not the penetrating gaze, glance or stare so much as the shape or relative position of the eye that told the psychological tale. According to one theory, the narrow aperture of the eye was a sure sign of promiscuity. Using something like the method of known groups, Brigham Young's almond shaped eyes "validated" this theory of wantonness.<sup>5</sup> If Brigham Young was not ample evidence, the theorists listed a set of animals which supposedly displayed similar habits of mating behavior and a corresponding narrow eye opening. "The hog, the wild boar, the dog, the cat,

## MONOEROTICITY.—MONOGAMY

### THE DISPOSITION TO LOVE ONE ONLY.

*The dove or round shape of the eye openings is the most unexceptionable evidence of large mating love.*



Monoeroticity Large—Mrs. Margaret Fuller Osoli, who preferred to drown rather than to leave her husband.



Monoeroticity Small—Brigham Young, the noted polygamist.

*Illustration 2: From Physiognomy Illustrated or Nature's Revelations of Character, p. 158*

every species of serpent, all of the ape tribes, and all those whose eyes exhibit the almond-shaped opening are promiscuous in their attachments."<sup>6</sup> Obviously, these animal associations with Brigham Young and his disassociation (shown in Illustration 1 and 2) from a prominent heroine of the nineteenth century, Mrs. Margaret F. Osoli, put Mormons in their place.

Not only Brigham Young, but other Mormon leaders were targets of physiognomic analysis. Some of the descriptions were found in literature, but clearly influenced by the "science" of physiognomy. For example, "The gait of this person [Joseph Smith] was heavy and slouching, his eyes grey and unsteady in their gaze, and his face and general physiognomy coarse and unmeaning."<sup>7</sup> Another early Mormon leader, Heber C. Kimball, received similar treatment at the hands of a journalist for *Harper's Weekly*: "Under projecting eyebrows roll two bright, cunning eyes. Their expression is sly and rat-like, vivid and repulsive. His nose is thick and course; his lips pinched up, and their angles depressed; his head nearly bald, over the





Polyeroticity Large—The head of  
a Hog (*Genus Sus*.)

Polyeroticity Small—the head of  
a Turtle-dove (*Turtur Auritus*).

Illustration 3: From *Physiognomy Illustrated or Nature's Revelations of Character*, p. 163

crown of which he drags up and plasters down a few straggling hairs."<sup>8</sup> The "cunning eyes," "projecting eyebrows," "thick nose" and "pinched-up lips" had behavioral meaning for the readers of the last century.

Brigham Young was the favorite Mormon target of physiognomy. An anti-Mormon novelist, under the pseudonym "Maria Ward," credited Brigham Young with "eyes, which changed color with every variable emotion."<sup>9</sup> Another author noted that Brigham Young's lower lip and chin "shrank and curled and quivered under feeling."<sup>10</sup> Still another observed: "His face is indicative of penetration and firmness . . . but his lower lip, if nothing else, eminently betrays the sensual voluptuary."<sup>11</sup> According to the prominent physiognomist Mary Olmstead Stanton, two traits explained Brigham Young's influence over his followers: credenciveness and self-esteem. Self-esteem inspired self-confidence and credenciveness made him gullible to unreasonable beliefs.<sup>12</sup> She did detect however, self-will at the root of Brigham's nose which was "large in all who have excelled."<sup>13</sup>

Mormon women were no exception to the harsh judgments of the art of physiognomy leveled at the Mormons. The effects of polygamy were clearly written in form and feature of the Mormon woman. A few lines from an article with the provocative title "Scenes In An American Harem" illustrate the point:

I read in her face far more of the secret workings of polygamy than they wished to appear to every idler who might wander through Salt Lake City. On every distorted line of her swollen nostrils, her compressed lips, her lowered eyebrows and her eyes, too hot to weep, was written the fierce agony, the gnawing heart sickness, and the unutterable woe that every true woman must feel, and should feel, who is thus circumstanced.<sup>14</sup>

Furthermore, Mormon women "judging from physiognomical indications . . . belonged to the lowest class of ignorance . . . . The specimens before me were of the wrinkled, spiteful, hag-like order."<sup>15</sup> Mormon women were

homogenized into a monolithic mold. Like the oriental image, individual differences of women were often blurred into a faceless aggregate as dehumanization took its toll. One final example captures this homogenization process:

our Briton saw many haggard, weary, slatternly women, with lack-lustre eyes and wan, shapeless faces, hanging listlessly over their gates, or sitting idly in the sunlight, perhaps nursing their yelling babies—all such women looking alike depressed, degraded, miserable, hopeless, soulless.<sup>16</sup>

Physiognomy was called upon to give “scientific” support to negative stereotyping of two other Mormon groups—immigrants and children. The immigrants were portrayed as low-brow, stolid peasants, people of slight intelligence who were represented by the physiognomic clues of narrow brows, slouching posture, open mouths, and vacant stares. The anti-Mormons were adapting the larger nativist stereotyping of unwelcome immigrants. Similar traits were utilized to portray children of polygamous marriages as “neurotic and morons.”<sup>17</sup>

Like blacks, Indians, Jews, Orientals, the Irish, Mexicans and Catholics, the Mormons were stereotyped by the use of theories of behavior popular in the nineteenth century. Unprepared for a pluralistic society, Americans sought and found psychological support for their misconceptions.

In reality, the most compelling factor in the psychological diagnosis of Mormons in the nineteenth century was not to be found in the theories—mesmerism, physiognomy, humoral psychology, or phrenology—but in the attitudes of the practitioners toward Mormons and/or their system of belief. Those who viewed Mormons favorably gave generally favorable diagnoses. On the other hand, those who were unfavorable used commonly available stereotypes. On the whole, the psychological profile of Mormons said more about the attitude of the practitioner than the object of their study.

#### NOTES

<sup>1</sup>Ruth Benedict, *Race and Cultural Relations. Problems In American Life* (Washington, D.C.: National Education Association, 1942), p. 41.

<sup>2</sup>For a brief history of humoral psychology, phrenology and physiognomy, see Gordon W. Allport, *Personality* (New York: Henry Holt, 1937), pp. 63–85. A short history of mesmerism is found in Theodore R. Sarbin, “Attempts to Understand Hypnotic Phenomena,” in *Psychology In The Making*, ed., L. Postman (New York: Alfred A. Knopf, 1968), pp. 745–785.

<sup>3</sup>See Gary L. Bunker and Davis Bitton, “Mesmerism and Mormonism,” *BYU Studies* 15 (Winter 1975): 145–170; and Davis Bitton and Gary L. Bunker, “Phrenology Among the Mormons,” *Dialogue: A Journal of Mormon Thought*, 9 (Spring 1974): 42–61.

<sup>4</sup>*Harper's Weekly* 2 (4 December 1858): 782.

<sup>5</sup>Joseph Simms, *Physiognomy Illustrated or Nature's Revelations of Character* (New York: Murray Hill, 1887), pp. 158–164.

<sup>6</sup>Mary O. Stanton, *Encyclopedia of Face and Form Reading* (Philadelphia: F. A. Davis Company, 1895), pp. 358–359. Another slightly different theoretical twist follows: “Sensual or

polygamous eyes are shown by course, thick, puffy eyelids that are partially closed. The eyes are dull, half-closed and usually discolored." Harry H. Balkin, *How to Measure Your Powers and Increase Your Income* (New York: Halcyon House, 1938), p. 176.

<sup>7</sup>Robert Richards, *The California Crusoe* (London: J.H. Parker, 1854), p. 60.

<sup>8</sup>*Harper's Weekly* 1 (11 July 1857): 442.

<sup>9</sup>Ward, 141. Other novelists saw similar ominous signs in Brigham Young's physiognomy. "He stood on a little hillock, a few feet above his auditors, whom his fiery words held spell-bound. He was in the prime of life, of medium stature, but powerfully built, and his face bore the stamp of an iron will to which all must bend, and of that inflexibility of purpose which annihilates all obstacles. His deep-set eyes told of greed, both of money and power, as plainly as the square mouth and heavy jaws revealed the savage in his nature, at once sensual and cruel." Cornelia Paddock, *The Fate of Madame La Tour: A Tale of Great Salt Lake* (New York: Fords, Howard & Hulbert, 1881), p. 14. See also p. 26 and Lily Dougall, *The Mormon Prophet* (New York: D. Appleton & Company, 1899), pp. 17, 31. We are indebted to Greg Ripplinger's Honors paper on "Physiognomy and the Mormons" for the Paddock and Dougall references.

<sup>10</sup>Samuel Bowles, *Our New West* (Hartford, Conn.: Hartford Publishing Company, 1869), p. 235.

<sup>11</sup>*Harper's Weekly* 1 (11 July 1857): 441.

<sup>12</sup>Stanton, pp. 439, 578.

<sup>13</sup>Mary O. Stanton, *Physiognomy* (San Francisco: Printed for the author, 1881), p. 97.

<sup>14</sup>*Harper's Weekly* 1 (10 October 1857): 650. See Paddock, pp. 24–25 for a similar reference.

<sup>15</sup>Mrs. Benjamin B. Ferris, "Mormons at Home," in *Among the Mormons*, ed., W. Mulder and A. R. Mortensen (New York: Alfred A. Knopf, 1958), p. 263.

<sup>16</sup>Justin M'Carthy "Lochinvar at Salt Lake" *Harper's Weekly* 15 (22 July 1871): 675.

<sup>17</sup>"The Effects of Polygamy," *Anti-Polygamy Standard* 1 (September 1880).

# PERSONAL VOICES

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## Lyn

GARY P. GILLUM

*December 14:* Lyn really managed to get herself worn down. Lyn, Mom, Adina and I drove to Salt Lake City to see three naturopaths. The first one diagnosed Lyn's condition as a collapsed left lung. Very serious. In fact, if Lyn were to go to the hospital they would most likely remove the left breast in order to extricate the infection. But Lyn would rather take the slow and natural but more painful route. Upon our return home, the Bishop arrived . . .

*December 17:* As soon as I arrived home last night, Lyn called me to her sickbed, to recite the unusual experiences of the day. I recorded them in her own words:

I lay down this afternoon to take a nap, and I prayed that my head pain would go away and that I could sleep this afternoon. Afterwards I began seeing some white scenery like down in a canyon, but yet it sparkled like diamonds. It was very white—very, very beautiful. I remember two thrones—one bigger and one smaller. I knew they were for Gary and me. They were at the top of a winding—I don't know if it was a staircase or something. Evidently we were sitting in them because we saw millions of people below. Then this scene kind of fades into the next one. The staircase kind of changes. It becomes more straight and elongated—not winding—a bit more narrow. I saw this stained-glass window in it, the shape of what's in castles. Then I remember becoming unconscious, that my breathing slowed down and stopped. And there was no desire to keep on. But I thought: no, wait—I can't do this! I don't want to! So I made the effort to breathe again.

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GARY P. GILLUM, who has prepared Dialogue's annual indexes and Ten Year Index, is a Foreign Language librarian at Brigham Young University.

*December 25:* A sister just came to the door with a plate of natural food candies for Christmas! Bless her!

The best Christmas present of all: that Lyn got well after being critically ill. How without doctors? Several factors:

1. The priesthood of the Son of God, Jesus Christ—the Bishop and I.
2. Lyn's will to live after her brush with death a few days ago.
3. The massage therapy of Stan (3 times) and Paul (3 times).
4. Onion packs around Lyn's mid-section for almost two weeks. This drew out the infection and congestion in her collapsed left lung.
5. Herbs: a chest and lung formula, golden seal as an antibiotic, Vitamin C, teas, orange juice, tangerines, etc. Mild food diet.

All of the above played an important part, but they were much better than submitting her to an oxygen tent, antibiotics, other drugs and possible surgery. Even as I write these words she is in the kitchen fixing Christmas dinner with her mother.

*December 28:* Prokofiev's "Alexander Nevsky"—the soprano's exquisite solo after the battle on the ice, "I shall fly above death!"

*December 29:* Lyn is discouraged over being sick for so long. I gave her another blessing to allay her wish for death and release from her suffering.

*January 1:* The close of the year was terrifying. Since we were both tired, we did not 'see the new year in' but shortly after I dropped off to asleep, Lyn awoke me and said that it felt like she had 1000 pounds of pressure all over her body. She also felt the presence of evil and asked me to command Satan to leave. I did so twice before the evil departed—just before midnight. After the command, I cuddled up to Lyn, trying to comfort her. The evil left slowly, and I told Lyn I could see the evil presence—ugly and terrifying shapes. The ugliness gradually changed to bright colors and then to a bright white. Lyn requested that I remain in contact with her all night to keep the evil away. A fitful sleep for both of us. How grateful I was to awaken in the morning—but not before I had an unusual, uplifting dream. The entire temple endowment flashed before me (probably urging me to get back to the temple).

*January 5:* The Bishop and Brent over to see how Lyn is doing and suggested we dedicate our house to the service of the Lord. Lyn found out that her grandmother is praying for death so that she can strengthen Lyn from her vantage point.

*January 7:* I gave a noontime book review of *Life After Life* and *The Romeo Error*—both about death. I used Lyn's experience as an example.

*January 19:* On the way home, Grant questioned me about death. "How far away is it when you die? Are your eyes closed?"

*February 2:* Lyn is still improving and doesn't have much longer to go. I'm so happy for her.

*February 20:* Lyn has taken a turn for the worse and is very discouraged. Saturday morning I even took her to the hospital's lab for a TB skin test—she

thinks she might have tuberculosis. Not even her herbs will stay down now, and she's 86 pounds of skin and bones. She said that if she were offered the chance again to live or die, she would take the latter with no doubts. That would have been a shocking thing for me to hear four months ago, but as I have observed her intense suffering, I can empathize with her feelings. A healing by the priesthood seems to be the only thing left. Lord God, I would love to be equal to that responsibility! And as usual, the Lord followed my fervent prayers with an answer almost too great to bear:

Thou art not far from a great blessing. Hold thy tongue and thy temper; increase thy love to wife and children; call upon me in thy doings; remember thy covenants and my promises to thee; support thy leaders; magnify thy callings; teach with my Spirit.

Regard not the state of thy wife as incurable. Her faith, as well as thine own, will be required to bear her up in her infirmities. Her experience is teaching you both. Longsuffering, patience, and a godly attitude in respect to thy present trials will see thee through this earthly trauma in a few weeks.

Thou and thy wife have begun to see my mysterious ways, but ways which are beneficial for man. Thy wife lost much weight in an effort by the body to provide the way for a straightening spine in due time. The realignment of the spine is dependent upon faith in me, faith in thy physician, faith in thy body forces both electrical and mechanical, faith in the revitalizing and rebuilding spirit and power of proper foods and herbs and love and patience from the family.

*February 21:* President's Day today. Sale at BYU: some good buys and surprises for both the children and Lyn: *Huckleberry Finn* and *Heidi* for them, a watering can for her. Grant and I spent a grand day together shopping and in my office at BYU. Before heading home we enjoyed peppermint ice cream at Reams. We went home to take Lyn to a German therapist, using the spinal touch method to realign Lyn's spine. He said it would take about two years. That's great news, considering Lyn has been crooked for 31 years. We now see that this illness was necessary to cleanse her to make room for the realignment. Even muscles could be in the way. Her 86 pounds show that she has but the bare essentials remaining. Move out of the way cartilage, tissue, ligaments, tendons!

*March 1:* I could immediately sense that she was emotionally upset. She said that she has a rare, incurable disease called Friederickson's ataxia, a gradual degeneration of the muscles and spinal cord and a consequent shortening of life. Today and Wednesday, Lyn and I spent many very tender moments together reviewing the situation and talking about death. How it has changed her perspective on matters! I guess we should all live as though we were going to cross the veil tomorrow.

*March 12:* I wonder how much more of the strain of Lyn's sickness I can take. There were times I didn't control my temper—when I felt like pulling my hair out or knocking against a block wall. Yet I am reminded of a little boy's

comment that God knows us and who we are and were and can become, but he has given us trials so that *we* can find out who we are, were, and can be.

*March 18:* Movies shown to the Library Association—*John Baker's Last Race* and a movie about a woman who lives a normal life without hands or arms.

*April 8:* I slipped over to the Harris Fine Arts Center Gallery at noon for the performance of selections of Bach's famous St. Matthew Passion. The entire music department was involved, it seems, for the four choirs were scattered throughout the gallery among the audience. Behind me on the second floor railing were members of the oratorio choir. To prevent blubbing all over the place, I asked the bass behind me if I could join him in the final double chorus "*In Deepest Grief.*"

*April 25:* O Lord! How long wilt thou suffer me to be a part of this wicked generation! How easily do I fall into the ways and manners of men and their gods. Help me to listen all the day long to thy counsel. I entreat thee to bless Lyn with healing, for she hath suffered enough for us both. Shower upon her thy tender mercies, for she hath fought a good fight and hath valiantly sought thy aid day and night. Protect us with thy strength and suffer thy spirit to be with and attend us according to the faith which is in us. Cast us not away from thy presence, and take not thy Holy Spirit from us. Restore unto us the joy of thy salvation, and renew a right spirit within us. Open thou my lips—and my mouth shall show forth praise unto thee. Fill our souls with happiness, thanksgiving, love and peace—especially in regards to our beloved children to whom we have both yelled and screamed out of frustration, temper and impatience. Teach us to lead them in righteousness. Hear our prayer, O Lord! In Jesus' name. Amen.

*May 10:* But what a day for a birthday! Last night we took Lyn to the hospital for some pain relief, and she was admitted with double pneumonia—in critical condition. She was put on a breathing machine and given 5 liters of oxygen. Lyn's mother stayed with her until 2:30 and then came home for some rest. The kids felt so insecure, bless their hearts, that I promised to sleep with them in their room (in Adina's bed). Yes, dear Ba-Ba arrived Friday at the airport. She was so relieved—and understandably so—to be with Lyn, to comfort her, be with her and help her to relax before a recuperative trip back to Ohio. I, too, am relieved to have her here. Perhaps Lyn will listen to her mother more than to me. And I hope so deeply that this experience will help Lyn to realize that *SOMETIMES* I know what is right for her, and that I am concerned over her welfare. Of course lately she has had no right to listen to me. Even to myself I often seem to be off in another world, in another space, in another time—and if not really there, to at least wish I were. O Lord, I believe. Help thou mine unbelief. Keep me from falling.

*May 11:* The day was grueling. I visited Lyn three times, relieving her mother each time. Lyn's double pneumonia and anemia are being taken away mostly by faith, but through also a capable doctor, 5 liters of oxygen, good food, intravenous feeding of glucose and antibiotics and a wonderful hospital staff.

And, oh yes, a breathing machine to bring up the congestion in her lungs, which has subsided a great deal since last night.

*May 12:* Last night Lyn was chipper—smiling, joking, in a good mood. Tonight, the extreme opposite. Her life is slipping away from her ever so slowly—and I feel so helpless about it all. Her pulse was 130, blood pressure 112 over 48. Oh Lord! Don't let her suffer. Heal her or take her. Please?

Last night Lyman and his wife visited. While he was there, I asked him to help me administer to Lyn. In the blessing I was inspired to tell Lyn that her will to live and her faith were the most important ingredients in her getting well. Tonight she lacked both.

*May 13:* Friday the 13th of December 1968 Lyn and I met for the first time. Tonight another Friday the 13th, she lies at death's door in the intensive care unit. The doctor gave us little hope. Her scoliosis was her undoing, and had she not given birth to Grant and Adina, perhaps her days would have been lengthened. But she slowly sacrificed her physical body to give birth to two wonderful children—an act of faith, considering her back condition. Early in our courtship Lyn had warned me of her possible shortened life and likelihood of being crippled—thanks to the scoliosis *and* polio as a child. But to the surprise of all of us her lungs have been crippled instead of her legs. The latter you can do without—the lungs . . .

When it rains, it pours. I wrote the words in the last line as Adina started to cough, then vomit. I had to put in the wash everything—pj's, pillow cases, sheets, blankets, etc. Poor little girl! Neither of them have had much security the past few days. I only hope they don't sense that they might never see Mommy again in this life. Then there was the difficult chore of phoning Lyn's dad and informing him. He took it very hard. I'm so glad the Lord has granted me an extra measure of peace this night.

Meanwhile my work seems to suffer. I'm worried. I can't concentrate. My smile has disappeared. Except for the Lord I feel so alone. But the Lord suffered below us all. May the Lord help me to maintain my health!

*May 16:* Last night's vigil at the hospital until 10:30 p.m. was welcome to me. Lyn was aware of me once and squeezed my hand and saw me.

The urinalysis was normal. Blood pressure all right. But the doctor said that Lyn's chances are not good. Will the right lung alone function during surgery? Will its power suffice? Will it be possible to open the left lung and remove at least some of the dread disease? Will the surgery be too much of a shock for the weakened body? WILL SHE MAKE IT? The doctor's final statement was even more lucid: It's going to be tough for a young family without a wife and mother! Oh . . . . . Now. Get a hold of yourself. Let's go into the hospital and see how the surgery is going. I don't want to . . . but I MUST! My wife, my wife, my wife. Oh, God. Help me!

Lymphoma. Cancer of the lymphatic system. Malignant. Oh, may she suffer no more! The doctors talked to us after the surgery and informed us that if the cancer is radiosensitive, then radiology treatments could melt it. If



not, it would spread throughout the system. Oh cruel evil, monster given birth within the temple of the Spirit.

Now it comes to me. I remember the many times Lyn had pressure on her chest. Was it that accursed black rope making its way about her lungs? Oh, Satan. Wilt thou ever learn? Didst thou ever love? How could it have been possible? Never, I say, never. But some day I shall understand.

*May 17:* How like my own hospital days in '63! Unfortunately I am on the other end of the bed and wishing that I were in Lyn's place. She appeared better today than yesterday and could even communicate quite well by moving her lips. The heart monitors were taken off her chest tonight, enabling her to be much more comfortable. As for the tube down her throat or the tracheostomy, I don't know which is worse. Lyn wants her experience, her suffering—to end. When? It's hard to say. Tomorrow we would like to get her will prepared. That is her wish. Does that indicate something? Someone please tell me.

Itching, heat, suction, breathing, position, IV's, me, her mom, Adina, time—all of these things seemed to bother her at once. I just left the Intensive Care Unit, for the nurse just gave her a sedative. She was demanding too much O<sub>2</sub>—6 liters. She was always wanting more air these past few minutes. But 5 liters, 300 cc. 18 times a minute was plenty for the heart to manage. Oh, how these experiences change lives. I love her so much, but I want her suffering to end. She herself is impatient. The doctor was in the ICU for a short time and told me the chances for her recovery are not good. I would say she is now almost totally in God's hands. Frighteningly low blood pressure, retention of urine and difficulty in breathing—so she's still in God's hands. But the RN's and respiration therapists are doing fantastic work! Bless their perseverance.

Unseen, silent horror lurking beneath a sheaf of skin—art thou proud?

Art thou happy to have taken custody of a temple made in the image of the creator?

Oh, selfish fiend, deliverer of suffering unhallowed!!

May thy punishment be as great as thy mischief! Am I speaking amiss? Perhaps. Doth it seem, perchance, that this spared half of an eternal marriage lacks a perspective belonging to eternity? Oh, how doth this experience fit the scripture "Man is that he may have joy?" Am I warped, out of season, selfish, too demanding of time's responsibility of dictating "one day at a time?" Oh, Lord, thy will be done.

*May 20:* We waited until 8 P.M. before we could see her—a swollen, scared, miserable little girl. And she insisted upon having President Spencer W. Kimball give her a blessing. I thought Hartman Rector would do, but he was out of town. I spoke to Arthur Haycock, the prophet's personal secretary, and he indicated that *all* of the general authorities were out of town. Finally

Lyn settled for the branch president of the hospital. A good blessing. Waiting. Meanwhile, I read the *Reader's Digest* condensation of *Lindbergh*.

The Lord Himself told us not to fear those who take the body, only those who put the spirit in jeopardy. A comfort.

*May 22:* Thick, concrete walls enclosed the huge linear accelerator in the basement of the hospital. Eight of us helped take her down. She's responding well, hopefully enough so that her left lung is delivered into freedom's activity once again. She's alert again this morning and wants to know what's going on. As far as scenery, I much prefer the faithful rhythm of the respirator, the business-like gurgle of the suction tube than I do the cigarette smoke, the tinkling bells of the elevators and the sounds of soiled linen hitting the bottom of the laundry chute. Now, she rests, guarded by unseen but sensed spirits who are watching over her and helping her body climb to the top of this Mt. Everest experience.

*May 27:* Some air in the left lung and no cancer in the bone marrow. When I walked in, Lyn beamed like the sun coming up over the mountains. She said she felt better and felt peaceful. I cried, she gazed into my eyes. I rubbed her itching skin, the meantime watching her heartbeat vascillate between 127 and 102. I also gave her a blessing for rest and for God's will to be done. She is at peace, finally, and looks good. But her days are numbered. The future is bleak indeed. But I felt my strength flowing into her body.

*May 29:* She looks marvelous today. Less edema in her face, her yellowish jaundiced color is gone and she smiled more than she has in months. She asked me to massage her legs and feet—pure delight for her.

How much my perspective and priorities have changed! Friday's despair over Lyn was a turning point. My blessing on her head that day was from the heart, as were the thoughts in the silent chambers of my own soul, searching, seeking and finally finding comfort. Now, Lyn rallies—she improves. A just and merciful Father in Heaven has allowed Lyn to live so miraculously long. Will she be healed when all of the lessons have been learned? Or will the Lord remove her from the refiner's fire of mortality and allow her ultimate freedom? His will be done. Certainly the Lord holds the keys of life and death. The question is which is more just—to release a soul wracked with life-long suffering and make a wifeless husband and motherless children or to allow Lyn further teaching experiences and trials in mortality, thereby saving this family unit?

*June 2:* I attempted to comfort her, mostly by rubbing her legs, ankles and feet. When I told her at 10:30 that the kids and I had to get back for sleep, it was difficult to leave her. As I walked out to the car, the words of Tolstoy in *War and Peace* came out into my mind. "What do the doctors know? They can't cure anything. Our body is a machine for living. That is what it is made for, and that is its nature. Leave life to take care of itself, and don't interfere. It will fight its own battles a great deal better than if you paralyze its powers by encumbering it with remedies. Our body is like a perfect watch meant to

go for a certain time; the watchmaker cannot open it—he can only adjust it by fumbling his way blindfold. Yes, our body is a machine for living, that is all.”

*June 4:* The doctors said she had improved appreciably since last Friday. Her tumor seems to have shrunk, and X-rays show increased air capacity in the left lung. But she’s had no activity in the bowels for three weeks, her left lung might be tumorous, and a fistula has developed near her tracheostomy. Who knows but the Lord and his angels? His will be done. But what is His will?

A most disturbing thing just happened to me. I spied the *June Reader’s Digest*, which I hadn’t read yet. I opened it inexplicably to page 72. The story of Helga’s death, beginning with pneumonia, followed by a biopsy of cancer of the lymph gland, possibly in the lungs, followed by chemotherapy and death May 13. She was young, had four children, but faced life with dignity until death knocked at her door. A strong faith pulled her family through. Now, why do you suppose I accidentally picked up that article?

When I brought the kids up to see Lyn this morning, the nurse gave them each a needleless hypodermic and told them they were to squirt daddy with it. While we waited in the waiting room, four sons and a wife came out of CCU with solid faces and solemn looks, exclaiming, “He’s gone.” Death happens so suddenly. But this gentleman had suffered only 10 days. Next week it will be a month for Lyn.

*June 12:* Thirty-three years ago, I was in a hospital, unknowingly to be sure, but necessarily. A tiny infant, newly born, naive to what the future years would bring. Joy and grief. Heartache and fulfillment. Understanding and prejudice. Success and failure . . . Lyn was glad to see us all this morning—and the bells from India given to me by Ba-Ba to grace my office.

*June 14:* Since Lyn was all right, I brought her mother up and then left for home with two sweet children. I felt impressed to visit Temple Square with the kids—and they were so cute! I cried through “Man’s Search for Happiness,” and the kids were quiet most of the time, seeming to soak it all in. As we walked out of the theatre Adina looked up at me tenderly and with meaning said, “Daddy, when I die will you come and pick me up?” And she was equally as tender during the Family Home Evening movie. She looked at me and said “I love you, Daddy, and we should have Family Home Evening all the time!” Oh, what a doll!

*June 19:* Lyn’s left lung is essentially dead, and when decomposing and dead substances are left around living tissues the chances for infection are greatly increased. Consequently, when the doctors feel that Lyn has enough strength after being fed through the tube in her stomach, they will consider surgically removing the left lung—an operation severe enough for a healthy person. The problem I discovered Saturday is that the bowels haven’t worked for over six weeks, and it is not known, therefore, how to resume the body’s digestive process. Hyperalimentation is a partial answer, but this Instant Breakfast-like substance they want to give her cannot be administered

through the veins. So, we're back where we started. The cancer seems to have been arrested by the radiation and chemotherapy, and a second course of the latter, to be administered tomorrow, should melt away even more of the dragon.

Gary and I talked about cancer in general—can it be caused spiritually, emotionally and mentally as well as physically? Is it something or a process already dormant in the body and triggered by a foreign substance? Or is it a virus caught from someone or something? Why are some cancers arrested and others the victors of the battle? What causes it besides certain drugs, chemicals, X-rays, diet, stress and lack of repentance? I feel that there exists an elemental key to the problem of cancer, which, if discovered, will unlock the door to this awful disease fatal to one out of four Americans. Is it genetic, arising out of crossracial and crosscultural intermarriages from our nation's melting pot? The very air we breathe, which has been ruined and poisoned by the industries of civilization?

Now, the discouraging part. Due to Lyn's scoliosis, both of her lungs are needed for respiration. If her left lung *is* removed, her right lung will have to compensate for both—or she will have to be on a machine for the remainder of her life.

I wish that in the next world I might think that this life was all a marvellous vision.—Chekhov

*June 24:* One of Lyn's nurses called from the hospital to inform me that Lyn was unstable. After such a beautiful night with Lyn last night—the best I've seen her in three weeks—I couldn't believe it. It really shook me. Rather than going grocery shopping, I went straight home and tried to find a babysitter. I was fit to be tied by the time I got to LaVeda at 7:30 while I watched *West Side Story* trying to relax. I took the kids to LaVeda's house and fled for Salt Lake.

Lyn's instability tonight arose from coughing up big chunks of dead tissue from her necrotic left lung. Her anger throughout the day apparently helped somewhat. What earlier appeared to the doctors to be suffering turned out to be a blessing, for if she can get her dead lung up this way, she won't have the risk of surgery to put up with.

While I was up with Lyn last night, she talked a blue streak—with her alphabet chart, that is. She was in a good mood and wanted to know everything. Elder Hartman Rector and his wife Connie came up to comfort her. What a wise man Elder Rector is. It's no wonder at all that he is a General Authority. He said Lyn would be out in a few weeks. She promised to be a better mother and wife in the future, and he emphasized how important it was for her to learn from this experience. Of course, she's not the only one who has learned.

*June 25:* Lyn just awoke after 5½ hours sleep non-stop. I had taken her mother back to the dormitory and had folded a towel at the foot of Lyn's bed where I placed my own weary head for some sleep—with the regular red, white and green lights of the heart monitor blinking, the respirator's inhu-

man breathing sounds and the filling and emptying of air in the air mattress beneath Lyn and my head. Lyn wanted one of us next to her constantly.

*June 29:* Wednesday she called to say that the doctor wants to speak with both of us. I don't know what that might mean. Oh, Lord, continue to help us! Please. So often I feel like I'm getting to the breaking point, and the other night the doctor had to take Lyn's mother back to the dorm.

*June 30-July 2:* "I have to go now." With those words—the last until this present moment (11:37 A.M. on Saturday)—Lyn sat up and swung her legs over the edge of the bed and prepared to leave. Her mother and the nurses put her down on her side and Lyn began to go into seizure (5:20 P.M.), I was called at home around 6:30 P.M. by both the doctors and the social worker, and advised to come immediately. After leaving Grant and Adina with Ruth, I drove as fast as I could (55–60) so that I could get to the hospital in haste. Lyn's mother was all out of sorts, and she and I and Dolores cried in each other's arms. The doctors and the nurses and Lyn's mom were all sure this was it. We talked about the funeral—in between sobs—and other related matters concerning death. I wish I could express my feelings totally concerning the evening. I will never forget them.

Minutes later the doctor informed us that they had stopped the seizures by administering drugs and anesthesia. A brain scan to determine the cause was performed, but there were no blood-clots, tumors or hemorrhages in the brain. So . . . she is still alive, semi-conscious rather, and a spinal tap revealed no sign of spinal meningitis. Neurologists are checking and conferring, but so far the only possibility has been a metabolic imbalance, possibly magnesium lack. I can't keep back the tears when I go in to see her, for she is not really there. Her actions remind me of a hydrocephalic, mentally retarded child I once visited in the Winfield State Hospital years ago. I felt the distinct impression that the spirit wants to go free from this diseased body. Before I leave, I shall bless her that her spirit shall go peacefully.

Earlier Thursday afternoon, Lyn wanted to talk about death and eternal life. Apparently, she has begun to accept the alternative to life—without hesitation. It was as if she knew that these were to be her last words.

I blessed her, asking the Lord to bring her out of her vegetable state or to free her spirit from her pained body. How much longer can she lie there rolling around her thickened lips and tongue . . . Eyes unblinking with pupils almost overcasting the irises. Almost all of her hair is gone and much of her body is but skin and bones. The nurse told me that the neurologists had found nothing. They don't even think it's a metabolic imbalance. Who knows? But even though the brain scanner found nothing amiss, Mom believes it's a brain tumor. If so, time is short. And now the nurses admit that she is terminal. Oh Father, bless her with peace and relief!

*July 3:* The kids managed to raise me, we breakfasted, and then when I should have been going to priesthood, Lyn's mom called to tell me to come, since Lyn's condition was deteriorating rapidly. The Bishop who married us almost eight years ago in Indianapolis took the kids in and I tearfully drove

hospitalward, fearing that Lyn would pass away before I got there, but after the initial visit her condition inexplicably improved so that there was occasional communication and response. But her vital signs are low, breathing stressful. She knows both of us are here with her. And she *is* peaceful. The question is: is she improving, or just rallying enough so that she would know we're here before she goes? None of the doctors know, leading me to believe that in some respects, medicine is in the dark ages still. Far be it from me to suggest anything, however. I'm having a difficult enough time learning patience and longsuffering. And I haven't learned enough yet.

*July 7:* At 8:45 A.M. on the 7th day of the 7th month in the 77th year on her Grandpa Unger's birthday, Lyn passed onto a better life with her loved ones who preceded her. In December during a blessing on Lyn by the Bishop, I had received the impression that her grandfather was attending her. She went peacefully, and her last words were, "I love you, Mother." The night before at midnight (when I was trying to sleep) Mom said a mist surrounded the bed Lyn was in. Even the nurses saw it.

*July 8:* It all seems like a bad dream. It's hard to believe that Lyn is gone now, but both Mom and I are taking this nightmare more easily. We both know that the Lord is strengthening us both in this trial of trials. Fortunately, Grant and Adina didn't take it very hard last evening when we told them, but they are really too young to understand. Today's chores consisted of coming up with a funeral program (yesterday's obituary was difficult enough) and choosing a suitable casket for Lyn.

*May 10:* Approximately 190 people viewed Lyn and paid their respects to her at the Mortuary. Lyn's Mom made her up beautifully, and it was hard for me to believe that it was the same darling wife I saw in the hospital bed last week. She looked so peaceful and serene. Before the family came in to see her, we brought in Grant and Adina to see their mommy. It's hard to tell what went through their little minds, but they seemed to take it fairly well. Each of them put a flower in her hands. So cute! Who but the Lord understands how much they comprehend? Who but the Lord understands at all?

# AMONG THE MORMONS

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## *A Selected Bibliography of Recent Works on Mormons and Mormonism*

EDITED BY STEPHEN W. STATHIS

MORMONISM THROUGHOUT MUCH of its rather brief history has stirred emotional responses from a large portion of the American populace. What began in the 1830's as persecution and a forced flight to the West has gradually blossomed into the gradual assimilation of Mormonism into the fabric of American culture. Illustrative of this transformation are several new books which have drawn attention to the character of Mormonism as a historical movement, treating it with objectivity and insight. A recent essay in the *Saturday Review* praised Leonard J. Arrington and Davis Bitton's *The Mormon Experience: A History of the Latter-day Saints* (New York: Alfred A. Knopf, 1979) for having examined the principal issues that have confronted Mormons "within the secular contexts of political, economic, and institutional needs, setting divine revelation aside," without shrinking from the controversial. "If," in the words of the reviewer, "*The Mormon Experience* is not a critical history, it is nevertheless a remarkably intelligent and open-minded official history and deserves to be seen as a promising sign of liberalism in a proudly conservative and authoritarian society." Although some Mormon scholars undoubtedly may quarrel with the treatment of areas which they would have handled differently, the value of such studies for the general public cannot be denied.

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STEPHEN W. STATHIS is an analyst in American history with the Congressional Research Service of the Library of Congress.

Other important recent works, which at this point seem assured of a prominent place in Mormon literature for a long time to come, are J. Max Anderson's *The Polygamy Story: Fact and Fiction* (Salt Lake City: Publisher's Press, 1979), Richard Jackson's *The Mormon Role in the Settlement of the West* (Provo: Brigham Young University Press, 1979), Mark Leone's *Roots of Modern Mormonism* (Cambridge, Massachusetts: Harvard University Press, 1979), Margaret Lester's *Brigham Street* (Salt Lake City: Utah Historical Society, 1979), Hugh Nibley's *Nibley on the Timely and Timeless* (Provo: Religious Studies Center, Brigham Young University, 1978), Spencer J. Palmer's *The Expanding Church* (Salt Lake City: Deseret Book Company, 1978), and Marilyn Weren-ski's *Patriarchs and Politics: The Mormon Woman* (New York: McGraw Hill Book Company, 1978). The continuing and prolific publication of Mormon-related books, most of which are positive and objective, is encouraging. Those works which still play upon the sensational should be seen for what they are. Our challenge will continue to be the distinguishing of fact from fiction.

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# REVIEWS

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## *Human Cloning: Reality or Fiction?*

*In His Image: The Cloning of a Man* by David M. Rorvik, Lippincott, New York, 1978, 239pp., references, bibliography, index, \$8.95. Paperback: Pocket Books, New York, \$2.50.

Reviewed by S. SCOTT ZIMMERMAN who is Assistant Professor in the Graduate Section of Biochemistry and Cancer Research Center, Brigham Young University.

More important than the book itself is the furor it raised. When *In His Image* was published, people were forced to ask some provocative questions: Is human cloning actually possible? What are its social, moral and religious implications? What psychological problems will a human clone and his parent/twin encounter? What benefits can come from human cloning? Mormons too began asking questions: How will a cloned baby be assigned a spirit? What will be recorded for a clone's genealogy? Would God really allow cloning?

But first, did it really happen? Rorvik describes how he was contacted by a multimillionaire bachelor (called "Max" to protect his identity) who wanted himself cloned. Rorvik purports to have found a willing and able scientist ("Darwin") who secretly organizes a research team in an isolated hospital in a uniden-

tified far-away land, and succeeds in replacing the genetic material from a human egg with a complete set of Max's genes. Then he implants the now fertile egg in the womb of a surrogate mother ("Sparrow") who subsequently delivers a healthy boy—the son and identical twin of Max. Max and Sparrow fall in love, and the new "family" presumably lives happily ever after.

The story strains at credibility. I question that a scientist of the purported ability of "Darwin" would give up a normal research career, even risk finding future employment, simply for money. The possibility of being the first to clone a human, or the first to clone any mammal for that matter, would be an allurements to many scientists, *if*—and this is one of the snags in Rorvik's story—*if* the results could be published openly in a reputable scientific journal. Being recognized by peers, being known as the "first," being honored for advancing the frontiers of science—these are the major motives of scientists. Not money.

I also question that a project of this magnitude could be accomplished, as Rorvik claims, in two short years. Two years—to set up the complete laboratory complex, to hire and train the scientists and technicians, to carry out the experiments, to develop the right techniques,



and to find final success—is several years too few. Has Rorvik never heard of Murphy's Law?

I think that Rorvik wrote the book as a means to summarize his career as a science writer in human reproduction, or to fulfill a desire to become involved in, and not just report on, a major scientific happening, or even to fulfill an ambition to write a novel. Or maybe he wrote it, as he admits in the afterword, to test the public conscience regarding human cloning.

Whatever his intentions, Rorvik produces what seems like an odd hybrid between a masters thesis in philosophy (complete with footnotes and bibliography) and a cheap science fiction novel. He presents a fairly complete discussion of the pros and cons of human cloning, test-tube fertilization and genetic engineering, but does so in an unorganized stream-of-consciousness style. Especially annoying are his frequent pseudo-conversations ("I said that I felt that . . . And he said that he felt . . . Then I said that . . . Then he said that . . .") Evi-

dently Rorvik shuns conversational quotations to avoid the appearance of a novel, and presumably shuns direct presentation of the issues in essay form to avoid the appearance of a technical review. The main failure is the attempt to combine serious philosophy with fictitious narrative, without complete sincerity in either. As a result the characters are stereotyped, the descriptions shallow, and the events predictable. The book is simply weak fiction.

But whether or not a human actually has been cloned, as described by Rorvik, is beside the point. Molecular biology is developing at such a pace that human cloning will soon be with us, if it is not here already. I see no way of avoiding it (and no, I don't think God will prohibit it). Rorvik succeeds in warning us of this eventuality and of some of the ethical questions involved. We should seek individually and collectively to answer some of these questions before human cloning becomes another "achievement" of technology for which we are morally and emotionally unprepared.

## *Heavenly Bound*

*Life After Life* by Raymond A. Moody, Jr. New York: Bantam Books, 1975, 189pp., \$2.25.

*Reviewed by BARBARA SHAW CLARK, a specialist in leukemia and other cancers of childhood, who works intensively with dying children in Seattle, Washington, and OWEN E. CLARK, her husband, who is a psychiatrist in private practice in Seattle, Washington.*

Medicine has rediscovered that all life ends in death, and now seems marginally willing to explore the possibility of life after death. Raymond Moody, a psychiatrist trained in philosophy, writes one of the more straightforward and more widely circulated books on this topic. He draws on intensive interviews with some

fifty persons who were medically resuscitated, who came near death, or who observed a near death, in order to give a composite description of the experience immediately after dying.

Life after life includes a surprisingly pleasant sensation of leaving one's body and of reorientating oneself in a timeless, weightless state in which one's vision and hearing remain definitely intact but one is invisible and inaudible to others in the mortal state. One becomes aware of other spiritual beings and of a unique being of light who radiates love and warmth. The being of light extends perfect and instantaneous understanding without need of spoken language and draws one's reflections upon one's own life; in effect asking, are you prepared to die and what have you done with your

life—questions posed to induce reflection rather than to accuse or to threaten. Stressed are two life tasks: learning to love other people and acquiring knowledge. One is often reluctant to return to mortality and thereafter holds life more precious and no longer fears death.

Moody's writing is unpretentious and restrained. These qualities may enhance his credibility in the twentieth-century scientific community, which remains generally skeptical about after-death existence. Witness the fate of Elizabeth Kubler-Ross, the pioneer in death and dying. When she first sought to interview terminal patients on the medical wards in Chicago, the attending physicians glibly informed her that they had no patients who were dying. She persisted, acquired international fame, and has had her stages of dying become dogma in the field. But now that she has turned her attention to life after death, the recurrent murmur in the audience is that she has now flipped out and has lost her scientific credibility.

Moody takes pains to abstract general phenomena from descriptive accounts without adding excessive speculations or forcing the narratives to conform to preconceived notions. This sets *Life After Life* a niche above most other current writings on the topic. The out-of-body experience of Moody's medical school professor, Dr. George G. Ritchie (*Return From Tomorrow* [Carmel, New York: Guideposts, 1978]), is more detailed but remains an individual account. The purported dictation of William James through the spiritualist, Susy Smith (*The Book of James* [New York: G. P. Putnam's Sons, 1974]) has fascinating thoughts but

lacks clear separation of original phenomenologic observations from interpretations and explanations. The observations are in accord with Mormon beliefs, but the conclusions, presumably drawn by James himself, might well represent the thoughts of a brilliant man in a lower order of existence who is not privy to the inner working of the entire plan. Less suspect and more readily available to the Mormon audience is the thick book of Duane Crowther (*Life Everlasting* [Salt Lake City: Bookcraft, 1967]). We find many of his accounts interesting but mistrustful because of uncritical mixing of folklore, hearsay and doctrine and because the material is forced into a preconceived Mormon belief system. For example, Crowther's introduction claims divine manifestations are available to a hierarchy of Saints from prophets down through stake presidents to faithful lay members of the Church—oblivious to non-Mormons and to the not-particularly faithful who also tell of life after life.

Moody explicitly says that he is "not trying to prove that there is life after death." However, most Mormon readers will most likely take literally the blurb from the cover jacket of the Bantam book edition and read his account as one that "actually gives history that reveals there is life after death." We view his description as a fugitive blink at another sphere of existence and not as an attempt to prove continuity of the soul. The accounts of life after death edify the believer, but could whet curiosity that distracts from the fullness of loving and learning here and now. We recommend this book but hope it does not make anyone so heavenly bound that they are no earthly good.

## *Herbs, Beeswax or Horsetail*

*Is Any Sick Among You?* by LaDean Griffin. Provo: Biworld, 1975, 228 pp., \$8.95.

*No Side Effects: The Return of Herbal Medicine* by LaDean Griffin. Provo: Biworld, 1975, pp., \$7.95.

Reviewed by DON H. NELSON, formerly Chief of Medicine at LDS Hospital in Salt Lake City, who is currently Professor of Medicine, University of Utah School of Medicine.

These two books from our own Mormon culture are typical of a large number of similar publications in the lay press. Well meaning people who have found that modern medicine cannot cure everything are too easily attracted to the "testimonials" of other well meaning friends that there is a cure not known (or used) by conventional medical practitioners.

We all know how harmful "hearsay" or "gossip" can be, but these attempts to find unique or unusual medical cures can be considered little more. These, and similar publications, take advantage of how little the average person knows concerning the function of his own body. When such "herbal cures" are used for the treatment of the common cold little harm is done. For the diabetic patient, on the other hand, to believe that "golden seal acts like insulin" could lead to discontinuance of a life-saving medication and the unnecessary death of a parent or child.

Of particular danger to the Mormon population is the interweaving of church doctrine with "old tales" of cures by herbs, bees wax, or horse tail. Being a forward looking people we believe there

is much to be learned. That knowledge will come, however, through hard work and the inspiration which comes to those who have applied themselves to the knowledge which has already been given us, not to dreamers or self-styled healers.

If we believe in any type of science, the electricity that runs our homes, the engineering that produces our automobiles, or the chemistry that produces photographs, we should believe in the same science which gives us modern medicine. If on the other hand, we desire to return to infant deaths by the thousands from typhoid, whooping cough and pneumonia, we will turn our backs on the knowledge of modern science and medicine.

Every physician has felt sorrow for the patient who has been misled by such "home cures," who has postponed proper therapy for cancer or other serious disease until it was too late. The answer for those who have diseases not subject to cure by medical practice as we know it today is in the priesthood, not in those who would lead us to believe there is a middle cure somewhere in between.

## COMING IN *Dialogue*

More on Medicine and the Mormons

"New Biology and Old Theology" by James L. Farmer, William S. Bradshaw and F. Brent Johnson

"Quackery and the Mormons" by L. Kay Gillespie

"Mormonism, Moral Epidemics and Homeopathy"  
edited by Lester E. Bush, Jr.

"Living With Opposition in All Things" by Marvin Rytting

"Shifts in Restoration Thought" by Howard J. Booth

"The Supreme Court, Polygamy and the Enforcement of  
Morals in Nineteenth Century America" by James L.  
Clayton

"How Firm a Foundation" by Hugh Nibley

