BYU DISCOVERIES IN EGYPT
RELIGION’S INFLUENCE ON TEENAGERS
TRANSOCEANIC CULTURAL CONTACTS
MORMON BIBLIOGRAPHY 1992
NEUROPATHOLOGY AND THE SCRIPTURES
THE OTHER HALF OF MALACHI 4:6
A Voice for
the Community of
LDS Scholars
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Front Cover: This gold-leaf death mask is one of the artifacts recovered by the BYU Egyptian Archaeological Team from a previously undisturbed tomb in middle Egypt. The heavy mask reaches to the shoulders of a woman who was the daughter of an Egyptian high priest. (See the back cover.) It is painted with numerous figures and symbols relating to resurrection and the afterlife. Courtesy of BYU Eg. Arch. Project.

Back Cover: Gold mummy whose coffin inscription identifies her as a daughter of an Egyptian high priest in the Ptolemaic era, c. 220 B.C. Courtesy of BYU Eg. Arch. Project.
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Tombs under limestone. A layer of limestone running through this small hill was utilized as a natural roof for Greco-Roman tombs in the cemetery. Many of the artifacts pictured throughout this issue were recovered from tombs in this hill.

Seila Pyramid, east side. This Old Kingdom pyramid, located in middle Egypt, was built by Snefru, father of Khufu (Cheops). It is being excavated by the BYU team, some of whose members and workers are shown here.
Evidences of a Christian Population in the Egyptian Fayum and Genetic and Textile Studies of the Akhmim Noble Mummies

Scholars uncover hundreds of Egyptian burials and use cutting-edge techniques to unlock ancient Christian secrets. They also probe the puzzles surrounding royal as well as noble mummies.

C. Wilfred Griggs, Marvin C. Kuchar, Scott R. Woodward, Mark J. Rowe, R. Paul Evans, Naguib Kanawati, and Nasry Iskander

Since 1981, a team from Brigham Young University has been excavating in the Fayum in Egypt at both an Old Kingdom Pyramid (the Seila Pyramid) and a Greco-Roman cemetery. The team has uncovered hundreds of unplundered burials in the cemetery, including two extremely significant pre-Christian burials, and the team’s work has yielded new information about the lives of early Christians and ancient pharaohs in Egypt. Although the initial genetic and textile results were limited to a few significant conclusions about family relationships and material circumstances of those Christian burials, the cutting-edge research methods developed and employed proved to be very illuminating.

Because of the expertise the team developed in that effort, it was invited in 1992 by the Egyptian Antiquities Organization to do textile and genetic studies on the noble mummies from Akhmim and the Egyptian Royal Mummies. This article describes the major findings of the team’s research to date.

The Seila Pyramid

From an inscription on one of two stelae found at the base of the east face of the Seila Pyramid, the team learned that the builder was Snefru, father of Khufu or Cheops. In addition to this pyramid, the
four built by Snefru at Dashur and the pyramid built at Meidum, which is tied to Seila by a virtually certain link in construction techniques and geographic relationship, bring the total known pyramids erected by Snefru to six. Temple artifacts, remains of a temple pavement, and pieces of a statue of a seated pharaoh are among the other noteworthy finds at the Seila Pyramid.²

Pre-Christian Burials in the Hill Tombs

The cemetery, which was used for burials from about 200 B.C. to about A.D. 800, covers approximately 125 hectares, or 309 acres. There are two small hills in the central part of the cemetery. Using a stratum of 6- to 8-inch-thick limestone running through one of the hills as a natural roof, ancient workmen carved twenty-two tombs, most containing multiple chambers for burials. Erosion of the tufa, or “dirty limestone,” above the tombs has both altered and buried most of the original entrances to the ancient tombs, often leaving only a small entry hole visible in modern times. Virtually all of the tombs and their chambers in the hill had been plundered at some undefined period in the past, although it is possible that two Fayumic mummy portraits found near the turn of the century by two British archaeologists, Grenfell and Hunt, came from tombs in this hill.³

Miscellaneous Recoveries. Among the artifacts recovered from this plundered part of the cemetery were lamps (see p. 338), tools, face masks, and reed baskets, one containing a grain offering. There were also parts of human bodies, including a man with each finger wrapped individually with linen; gold leaf was placed over the linen where the fingernails would be. The body of a woman was also recovered, intricately wrapped with many layers of linen strips in a diagonal geometric pattern. In two tombs where human burials had been placed, we found a few mummified cats, but later we found one tomb entirely devoted to cat burials, and from it we removed 158 cats. Although we have not found evidence of a temple or cult center in the area, the cats may represent the goddess Bastet and may symbolize protection of the graves and of the dead.

Two Unplundered Burials. The BYU team recovered only two unplundered burials from the tombs in the hill; both had been placed below the floor level of the tombs in which they were
“Goldfinger.” Each finger of this man’s mummified hand was wrapped with linen, and gold leaf was placed over the fingernail areas. The hand was recovered from one of the plundered tombs.
Cat face. This linen cat face was placed over a real cat's head. Mummified cats in and near the pre-Christian human tombs may symbolize protection of the graves and their dead.
found. The first, dating from the early second century B.C., was a cedar coffin containing an adult male. One end of the coffin had been destroyed by rock and debris, probably at the time of burial. The body had been wrapped with forty-four layers of textiles, with no decorations or symbols on the clothing. The unusually high number of wrappings probably indicates the special status or wealth this man had in the community.

The other unplundered burial was in a heavy wooden coffin found at the rear of a tomb measuring 2.2 x 5 meters and about 2 meters high (the roof had collapsed some time ago). The burial chamber had been carved into the hill below the floor level of the tomb, and a ramp had been cut down to the door for access and later covered over to floor level. The door to the chamber was made of roughly dressed stones held in place by a hard cement. Behind the door and on the ground in front of the coffin was a small human burial, wrapped intricately in many layers of linen strips. X-ray analysis at the site and endoscopic study later at the Cairo Museum showed this burial to be a child, between six and eight years old. The body was compressed after death to the precise length necessary to span the width of the burial chamber.

An inscription on one end of the coffin identifies the person inside as the daughter of an Egyptian high priest and of a mother who was important in her own right; it also indicates the mother was beloved of her husband. The young woman in the coffin has a gold head covering which reaches to her shoulders and is covered with painted symbols of Egyptian religious beliefs. Four flower garlands are wrapped around the body, which was placed on a bed of flowers in the coffin, and a spray of flowers was placed in the linen wraps over the heart. The multiple-layered wrapping of linen strips covers a beautifully decorated breastplate, which extends from the shoulders to the knees. The breastplate, made of sheets of linen glued together and overlaid with a layer of plaster, is decorated with scenes and divinities from the Egyptian Book of the Dead. Dating by associated artifacts in the tomb (primarily pottery), writing style of the coffin inscription, and carbon-14 analysis established this burial at about 220 B.C. All datable materials in the hill tombs originate from the end of the third century B.C. to early in the first century A.D.
Coffin with mummy of a child. The body of a child, age 6-8, was compressed after death to fit the width of the chamber in which the coffin of an Egyptian high priest's daughter was placed.
Burials in the Cemetery’s Shaft Tombs

To the northwest of the hill tombs are a number of tombs hewn in the limestone bedrock, and these tombs, which had not been previously disturbed, contain skeletalized burials. The manner of burial in the shaft tombs, which were usually sealed with a gypsum plaster cap, ensured the decomposition of all organic materials except the bones. When excavating a few of those tombs in 1981, we did not have personnel with the skills necessary to do complete pathology and other biological analyses of the burials, but such specialists were invited and participated in subsequent archaeological seasons.

Most of the cemetery consists of burials interred in the sand, usually without coffins, and layered four or five burials deep in shafts cut down through the sand to a depth of three to five meters. The burial shafts are all on a basically east-west orientation, with the slight directional differences likely accounted for by variations in the sun’s amplitude from the summer to the winter solstice.

**Direction of Burials.** The oldest burials in each shaft were often, but not always, placed in a chamber cut slightly at an angle to one side or the other of the shaft, and the chambers were nearly always covered with roughly dressed rocks (see figure 1). The burials at the bottom of the shafts date from the first half of the second century B.C. to the first half of the first century A.D. In every instance, these burials were placed with the head to east and the feet to west in accord with the ancient Egyptian belief that the dead would rise from their graves and go to the west.

Beginning with the second half of the first century A.D., usually from the second burial layer up from the bottom of the shafts, all burials are reversed 180° in burial direction, with the head to west and the feet to east. This new burial direction continues without exception upward to the latest burials, which were placed in the cemetery close to the surface of the ground and date to approximately A.D. 800. The direction corresponds to early Christian beliefs that the resurrected Christ would return to the earth from the east and that the dead in Christ would rise from their graves to meet him. Because the rituals associated with death and burial tend to be among the most conservative in ancient cultures, such a radical change in
Figure 1. Diagram of a typical burial shaft. At the bottom of the shaft, the burials are oriented with the head to the east so that when the dead rise up they will be facing the west. From the second half of the first century, burials have a reverse orientation so that those dead will face east when they rise to meet the resurrected Christ. This shift in direction indicates a cultural change from Egyptian religious beliefs to Christianity. Figure drawn by William Revell Phillips.
burial procedure suggests a major cultural change in at least this part of the Fayum in the second half of the first century A.D.

A reversal in burial direction is but one of many evidences suggesting that this major cultural change was the arrival of the Christian faith in considerable strength (sufficient to influence all burials in this large cemetery immediately and completely for the next seven centuries or so). What cannot yet be determined—although the molecular biology studies reported below will show that such determination is imminently probable—is whether the arrival of Christianity came about through conversion of the local population or through the immigration of a large number of Christians who exerted considerable cultural influence on the local inhabitants.

**Associated Objects.** Virtually all of the pottery associated with the head-to-west burials are large wine amphorae and small wine drinking cups. Neither has been found with the head-to-east burials at the bottom of the shafts. The hundreds of amphorae and drinking cups found among the burials suggest that a graveside sacrament, a Eucharist service, was held for the deceased of the common faith, with the jars and cups put into the graves as tokens of religious unity with the dead.

**Textiles.** The quality and amount of cloth change dramatically from the head-to-east (pre-Christian) to the head-to-west (Christian) burials. The linen in the head-to-east burials is much coarser, the weave is not as tight or uniform, and no decorations or designs have been found in the textiles associated with those burials. In some instances, the material shows signs of wear under microscopic analysis, indicating the cloth had been previously worn or used.

In the head-to-west burials, both linen and woolen textiles have been recovered, and it is all of higher quality than the linen found with the head-to-east burials. Under microscopic analysis, team member Marvin Kuchar has been able to determine that none of the textiles in the head-to-west burials had been used or worn previously, for there are no broken or worn fibers, nor is there any fraying or lint, the latter of which begins to occur on this type of fabric during the first wearing. The observation that all of the burial clothing and shrouds associated with these burials are new and previously unused
means that a great deal of effort and expense went toward acquisition and preparation of clothing to be used only for burials. Preparations usually extended to intricately wrapping the burials with a two-colored ribbon in geometric patterns over the external linen shroud. But even simple shrouds without decoration were new and previously unused items.

**Clothing.** In addition to the textiles being previously unused, the amount of clothing associated with the burials probably involved great expense and indicates the importance of appropriate attire for the deceased. The burials have from five to twenty-six layers of clothing, and many of the layers contain designs and symbols which likely have religious significance. One elaborate, but representative, burial which has twenty-six layers of clothing will be considered to illustrate the pattern of burial dress. The adult male was found buried beside an adult female, who had virtually the same number and types of caps, robes, and other clothing items. On the male’s head were five knit caps, each with different designs knitted into it. All caps were made of three colors of woolen yarn and were of a loose-knit construction with a rolled edge.

Many of the robes were woven from a dyed yarn of one color for the body of the robe and a different color for the collar and hem. One

![Well-preserved burial with ribbons](image-url)

**Well-preserved burial with ribbons.** After being dressed in numerous layers of clothing, the body was often covered with a linen shroud and wrapped with a two-color ribbon in geometric designs. This Christian burial, a woman, was simply interred in sand.
robe on this burial has a purple collar and a purple hem. Inasmuch as purple is the color of royalty or special privilege and could not be worn by the general populace in Egypt at this time, the purple is indicative of royal status in the life to come. Colors in some robes illustrate the high quality of dyes and weaving, and the quality of preservation is sometimes remarkable. Another robe has two wide panels extending over the shoulders and to the feet both in front and back, and the panels are filled with depictions of large animals, birds, insects, and plants. If the robe is suggestive of a creation scene or a heavenly paradise, it would support the hypothesis that each of the layers of clothing represents part of an extensive and complex ritual pattern associated with the passage from this life to the next.

Ten of the robes on this burial are plain linen garments, but the many strands of linen ribbon wrapped around the upper half of the body are gathered together into a complex knot. This knot is

Detail of a remarkably well-preserved robe. The dyes and weaving in this early Christian robe show the high quality found in some of the burial robes. The horned animal depicted here is on one of two long panels extending the full length of the robe and filled with numerous plants and animals. These decorated panels may depict a creation or paradise scene.
found on the left shoulder on two of the robes, and on the right shoulder of the remaining eight robes (see p. 272). The symbol of the sacred knot or bow is common in Egypt and elsewhere and may indicate sacerdotal, or priestly, authority.

The piece of clothing closest to the body is not usually well preserved, due to the destructive influence of fluids and chemicals remaining in the body. In this burial, as well as a few others, however, the woolen garment next to the skin is sufficiently well preserved for us to observe that small rosettes have been woven into the material in particular locations. There is one rosette over each breast and one on the right leg near the knee, but there is no corresponding rosette on the left leg. Across the lower abdomen, the material also has a hemmed slit about six inches long.

Considered all together, the various items of clothing, all previously unused and many containing symbols and designs, argue strongly for belief not only in an afterlife, but also for appropriate attire, most likely accompanied by or representative of a multifaceted

Aqua burial robe with purple collar. Purple, a color worn only by royal or privileged persons, may have denoted royalty in the life to come. This robe was recovered from the tomb of an early Christian man who lived in Middle Egypt.
and complex ritual process which would assure safe and successful passage into the realm of the divine.

**Personal Belongings.** Personal belongings are often found with the head-to-west burials, such as sandals, items of jewelry, combs, hairpins, and an ivory saltcellar (see p. 338). Although there is nothing of significant monetary value in the artifacts associated with the burials, the articles do have personal or sentimental value. One could even argue that the salt in the saltcellar has symbolic value, representing the religious beliefs or covenants of the individual.

A remarkably well-preserved pair of child’s booties was found wrapped in a pair of adult’s sandals; these artifacts were associated with a joint burial of a young adult woman and an infant. The booties are a three-color, Jersey-knit wool. This unusual technique occurs here approximately a millennium earlier than the date previously assigned by textile historians for its supposed invention on the Isle of Jersey.⁴

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**Garment with woven rosettes and hemmed cut.** This early Christian garment was made of wool and was placed next to the body. The garment has a woven rosette over each breast, a hemmed cut on the abdomen, and a rosette above the right knee.
Inside the booties were numerous small items; it is not certain whether they are toys for the infant to enjoy in the next life or symbols of religious belief. For example, the three iron keys found there may represent access to the doors of the three heavens to which a Christian may aspire, as mentioned in the Coptic Gnostic Gospel of Philip. Likewise, small wooden fish found with some burials may be nothing more than toys or models of the fish caught in Birket Qarun (the Fayum lake), or they may symbolize the Christian faith, since the Greek word for fish is an acronym for Jesus Christ, Son of God, Savior.

The intricate and involved process of burial preparation and dressing of the body may be adduced as evidence for religious symbolism in some associated artifacts, but the beautifully coiffed hairdos found on many of the women and other items of obvious sentimental value may argue for artifacts primarily reflecting family love and devotion toward a deceased relative or friend. Although artifacts placed in the graves do not reflect significant worldly wealth, the great cost of dressing a body in new and richly-decorated clothing demonstrates that no expense was spared in providing appropriate burials for family members and friends.

**Burial Density in the Cemetery**

The burial density in the cemetery averages 1.62 burials per square meter for the excavated squares. The degree of density stems from numerous multiple or cluster burials. A few double burials consist of adults buried side by side as in the male-female couple mentioned earlier, or, more rarely, one may be on top of another. Most often, however, the multiple burials are comprised of an adult with one or more children placed beside or on top of the adult body.

When a subadult burial, age 16–18, is placed atop an adult female burial, age 25–30, we wonder both what family relationship there was between the two and how it was determined that the bodies should be buried together. When a small child is buried next to an adult, we wonder if they were related or if they were buried together simply because both deaths had occurred simultaneously. For years there was no way to determine which answer was correct, but BYU molecular biologists can now ascertain relationships by DNA analysis of ancient human remains, as is discussed below.
Ivory hair pins. The crown of each pin is individually designed. The imported ivory indicates active trade with distant cultures.

Wooden comb. Numerous hand-carved wooden combs, containing both large and fine teeth, illustrate both a concern for well-kept hair and a style of combs unchanged from ancient times to the present.
**Child's bootie.** This is one of two wool booties wrapped in a pair of adult sandals found near a young woman buried with an infant. The discovery of these tricolored, Jersey-knit booties has revised the history of textiles.

**Small wooden fish.** This model of a fish was found near one of the burials in the cemetery. It may be a symbol of the Christian faith, or it may be a child's toy, since there was an active fishing industry in the Fayum.
**Beautifully coiffed hair.** The elaborate arrangement of these red braids reflects the devotion and love this early Christian woman's family or friends felt for her as they prepared her body for burial.
Results of Gross Pathology Studies

Gross pathology of the ancient human remains from the cemetery reveals both patterns and anomalies. Among the anomalies are fractures and deformities, an example of the latter being a cancerous bone extension of a femur into the pelvis. Diseases and accidents were clearly a normal part of life among this population. Biologists are studying both the visible and the genetic evidences of these ancient problems.

In the areas excavated during the 1992 season, we uncovered 142 burials, 58 of which were adults. The nearly 2-to-1 ratio of children to adults in the cemetery is not surprising, for infant and child mortality rates among this ancient population were naturally quite high, and they are still quite high today.6

What we did not expect to find from the examination of the burials was evidence of much physical violence. But among the adults, 24 percent died violently, as indicated by trephinations in the skulls caused by sharp objects such as swords, knives, or axes (see p. 312 for further examples of trephination). This figure is even more significant in light of the fact that nearly all of those violent deaths are found in strata corresponding to the third and fourth centuries A.D. The 31 adult burials in lower, earlier strata in these areas do not exhibit evidence of violent death, with one exception, and the same is true for the 8 adult burials in the strata datable from the fifth to the eighth centuries A.D., also with one exception. That is to say, there was one trephinated skull among the adult burials from the later centuries, and one also among the adult burials from the earlier centuries. The percentages of violent deaths among adults in these periods are 12 percent and 3 percent, respectively. The 24 percent figure for violent deaths among the adults found in the excavated areas now becomes 58 percent for the nineteen adults found in burials from the third and fourth centuries.

A major cause must be sought to explain the significantly higher percentage of violent deaths among this population in the third and fourth centuries A.D. Perhaps the persecutions of Christians during the reigns of Decius, Valerian, and Dioclétian are the cause of these traumatic deaths.7 This evidence of violent deaths from that era does provide the first published archaeological support for the historical accounts of persecutions of Christians in the later Roman Empire.
Skull with the face smashed. This early Christian teenager was 16–18 when he was killed in the third century after Christ. Of the adults buried during the third and fourth centuries C.E. in the cemetery excavated by the BYU team, 58 percent suffered violent deaths.
Despite our inability to determine with certainty the cause of the violent deaths in the cemetery, we are positive that those who suffered such deaths were not social and religious outcasts. They were not buried separately, and in fact are found in multiple or cluster burials, the same as those who exhibit no evidence of violent suffering or death. Furthermore, all of those who died by violent means were given the same care and preparation for burial as those who did not. Hair was carefully coiffed on a woman's head, for example, and items of personal or sentimental value were placed in the graves with these burials. Perhaps most significantly, all burials were dressed in the types of multilayered and symbolically rich burial clothing which we have previously discussed. If the burial direction and ritual clothing patterns are taken as evidences of Christianity, those who suffered violent deaths were buried as Christians.

Genetic Analysis of Ancient Burials in Egypt

An exciting new complement to the archaeological information gleaned from the physical examination of burials and artifacts is information buried within the antiquities themselves, specifically genetic information long preserved within the burials. Since this type of information in combination with a preserved written history and culture is unavailable in this form anywhere else in the world, these burials present a truly unique opportunity for comparative study and analysis.

Recovering information encoded in DNA from ancient human sources which are preserved by mumification and climates such as those found in Egypt is possible because of the stability of the DNA molecule. DNA analysis spells out the nucleotide sequence of small portions of genetic information specific to individuals and populations. The results can then be used to place the burials and mummies in the context of a human population subgroup, to identify gender, and to elucidate many other attributes of ancient populations. Further, this information allows comparisons regarding genetic diversity and genetic drift down through time.

Retrieving such information from its biological treasure house within mummies and converting it to knowledge about ancient history has been especially thrilling for the authors. This team, which
is a collaboration of BYU archaeological, molecular biological, genetic, and chemical scientists, has embarked on several molecular genetic projects specifically to establish familial relationships between burials in shared tombs in the ancient Fayum cemetery, to confirm genetic relationships in interesting legendary and historic royal lineages, to examine the presence and extent of common Mediterranean genetic diseases in ancient populations, and to analyze genetic drift in these populations down to the present. In addition, an archive of ancient tissue has been established at BYU for future genetic analysis in order to provide permanent access to this unparalleled source of biological and cultural information.

This type of research began in the late 1980s, when Allan C. Wilson, professor of biochemistry at the University of California-Berkeley, pioneered methods for extracting and amplifying mitochondrial DNA from ancient human remains. In 1990, Wilson, who had heard of the hundreds of human burials which the Egyptian Archaeology Project had recovered from the Fayum cemetery, proposed that he become part of the excavation team, since the excavation promised to provide the single greatest source of materials in the world for the study of ancient human DNA.

After Wilson announced his intentions, some BYU molecular biologists also pursuing DNA research expressed their own interest in participating in this new application of a developing science. Information was exchanged between Wilson and the BYU biologists until Wilson’s untimely death in July 1991. The Gulf War of 1991 prevented the team from obtaining the first tissue and bone samples for extracting and amplifying DNA from the Egyptian burials until the 1992 excavating season.

In the meantime, Professor Scott Woodward of BYU had been perfecting procedures for amplifying ancient DNA, both from mitochondria and from cell nuclei. Wilson had previously used only soft tissue as the source of ancient DNA, and he had concentrated on amplifying mitochondrial DNA because of its relative abundance in human cells compared to nuclear DNA. However, Woodward and his colleagues have since demonstrated that teeth, and to some extent other bones, not only preserve ancient DNA better, but also are less susceptible to contamination than are soft tissues.
During a visit to Egypt in August 1992, Professor Wilfred Griggs showed Dr. Nasry Iskander, director of conservation and preservation in the Egyptian Antiquities Organization, the preliminary results of the DNA analysis of some twenty burials from the Fayum cemetery. Dr. Iskander asked Griggs if the BYU team would be interested in doing the same kind of study on the Egyptian Royal Mummies. During the fall of that year, Iskander further reported to Griggs the discovery by Dr. Naguib Kanawati and his colleagues of a number of Eighth Dynasty mummies near Akhmim, and during the 1993 excavation (January–March), the BYU team was accompanied by Iskander and Kanawati to the Abydos Temple, where the mummies are stored and where samples were carefully extracted for DNA analysis.

During the 1992 and 1993 excavating seasons, the BYU team, at the invitation of the Egyptian Antiquities Organization, sampled mummies in the Fayum cemetery, the pharaohs of the historically problematic and genetically interesting Eighteenth Dynasty (1550–1307 B.C.) from the Royal Mummy Collection in the Cairo Museum, and mummies in a First Intermediate Period (Eighth Dynasty, c. 2000 B.C.) tomb near Akhmim. The team's development of the technique of fiber-optic endoscopy to sample inside mummies without unwrapping them allowed collection of priceless samples for genetic analysis and archiving which would not have been otherwise possible.

**DNA Analysis of Burial in the Fayum Cemetery**

DNA analysis of individual burials in the Fayum cemetery has provided evidence of some close ancient relationships, of the presence of genetic diseases, and of a lack of close family marriages among those buried there. We have asked the question whether any of this biological evidence sustains our previously stated hypothesis that the ancient Fayum cemetery was a Christian burial ground. Preliminary data may support this idea. Ancient Roman census records from the area and period indicate that the common population was practicing a high level of brother-sister marriages. If this were the case, we should be able to see evidence of such marriages in the genes of the burials. In the burials at the lower levels of the cemetery (pre-Christian), we see some evidence that this type of
marriage may have occurred. However, when we reach the upper levels that represent Christian burials, the data reflect what we would expect from a population that did not encourage brother-sister marriages.

In the cemetery are also several cases where two or more individuals were buried in very close proximity, suggesting a family burial plot. Tests on some of these cases confirm that one of the groups represents a family. This finding now opens new questions for investigation. As the common practice was to bury people within twenty-four hours of their death, this family probably died together. Was this common death the result of an accident or possibly disease? These are questions that can be addressed in future studies.

**DNA Analysis of the Akhmim and Royal Mummies**

The Akhmim mummies may be the best example that will ever be available to demonstrate the success and importance of biological sampling and ancient DNA analysis. They provide an opportunity to examine genetically the family relationships suggested by ancient documentary evidence with respect to associated burials. The six mummies buried in tomb 1 at Akhmim were easily construed by their outward appearance, manner of burial, and coffin inscriptions, to involve three generations in a closely related family. The family seemed to involve a grandfather (Hffi Sr.) and grandmother (Jnt-Sn), their son (Sm’t) and his wife (Hwjt), and two children of the son (Hffi and an unnamed child).

Preliminary studies of DNA sequence data from both mitochondrial and nuclear genes in these six mummies suggest that Hwjt and Hffi are not related to a northern European population. Additionally, Sm’t, Hffi, and the unnamed child belong to a single extended family which does not display the genetic characteristics of a disease often found in this population (see figure 2). Analysis is now being extended to include many other genes, including those determining sex and other physical characteristics. The BYU team is confident that the genetic relationships between these mummies can then be conclusively confirmed or refuted.

For example, through genetic analysis, Hwjt (the middle generation female) has been shown to be closely maternally related to
Hffì, one of the children. This relationship was established by the sequence identity of the mitochondrial DNA D-loop hypervariable regions from both individuals (see figure 3). Mitochondrial DNA is strictly maternally inherited, and the hypervariable D-loop regions mutate relatively rapidly because there is no evolutionary pressure to conserve the unused sequences. Therefore, sequence identity in the D-loop region indicates relatively close maternal relatedness, while nonidentity rules out close maternal relationship. In addition, examination of a highly variable nuclear gene from one member of each generation of this putative family has yielded results consistent with the idea that they belong to the same family.

Another very powerful tool that the analysis of DNA has produced is the ability to determine, without question, the sex of an ancient individual. This led to some surprises. The body found in the coffin of Hffì Sr., originally thought to be a male both by name and from the appearance of the burial face mask, was determined to be female by DNA analysis. Also, the body in the coffin of Jnt-Sn, whose burial mask and coffin inscription indicate female gender, was shown to be male upon DNA analysis.

Other genealogical questions can also be considered and answered using DNA analysis. A very striking example of this is the team’s ongoing investigation of the familial relationships among the Egyptian Royal Mummies. A number of mummies discovered at the end of the last century had been recognized as kings and queens of the Eighteenth Dynasty and were identified as such. Reexamination of these mummies by other scientists using X-ray and cephalometric measurement, however, had brought the original identifications into question. We now have the ability, using DNA analysis, to determine without question the correct genealogical relationships between family members of this royal dynasty. We have been able to extract and amplify DNA from three of the ancient pharaohs, which represents the initiation of a project which will take many years to complete.

Textile Analysis of the Akhmim Mummies

In addition to the bone and tissue samples taken from the Akhmim mummies, the team obtained some small fragments of
Figure 2. Probable genetic relationship between the Akhmim tomb 1 mummies. Face masks and inscriptions indicated that Hffi Sr. was male and Jnt-Sn was female, but DNA analysis revealed that their gender was just the opposite. The numbers are the BYU team's designation of the mummies for DNA analysis.
Figure 3. Sequenced portions of mitochondrial DNA from Hwjt (mummy 7) and Hffi (mummy 10) from Akhmim tomb 1. The mummy sequences are significantly different from the reference sequence (R. S.) of Anderson and others, which is of northern European origin. The identical sequences for Hwjt and Hffi indicate they are maternally related. (Nucleotides which are identical to the reference sequence are indicated by [ _ ]. The nucleotide designated P was a purine, either A or G.)
material which were lying on the bottom of some of the wooden coffins. Professor Marvin Kuchar has analyzed these materials and has also been able to study some aspects of the textiles based on photographs he took during the sampling process. The fabric analysis indicates that the family of mummies in tomb 1 had access to high-quality textiles. None of the burial cloths Kuchar observed was of poor quality or of cheap manufacture, indicating that the persons buried were wealthy or of religious or political importance. In fact, the cloth used with Jnt-Sn is some of the finest recorded in antiquity, being of the order of 55 × 15 to 47 × 14 threads per centimeter and only 0.13 mm thick.

Fabric from Hffi Sr. and Jnt-Sn had been finished with a rolled edge whipstitched to hold it together. All of the cloth is made of flax fiber; no indication of wool or protein fiber was found in any of the samples. This finding is consistent with the report of Herodotus (II:81), who states that the Egyptian religion forbade a body to be buried with woolen garments. The brown stains in the cloth of Hffi and no name indicate that burial procedures in these two instances differed somewhat from those of the other Akhmim burials. The stains were probably from body fluids, suggesting that the bodies were not mumified.

The false wigs of the mummy masks were also composed of flax and were pigmented or dyed on the ends. In addition, the wigs of Hffi Sr. and Jnt-Sn were impregnated with resin to give them stiffness. Differences in the wig materials indicate two different sources or manufactures. The small flax yarns used in one of the false wigs also show great skill in spinning.8

Conclusion

The large cemetery in the Egyptian Fayum is yielding much information relating to the culture of the population which inhabited this area for approximately a millennium, from at least the third century B.C. There is clear evidence of a major cultural revolution sometime during the latter half of the first century A.D., resulting in a reversal of burial direction, new patterns of clothing or dressing the deceased for burial, and the placing of particular kinds of artifacts in the graves. We identify this cultural change with the arrival of
Christianity during the first century A.D., and we propose that there are archaeological evidences here for some of the beliefs and practices of these early Christians. We also recognize that our work raises many questions concerning the nature and extent of the Christian faith in the Fayum at the time of these burials and during the succeeding centuries.

Moreover, analysis of genetic materials and textile fabrics by using the latest scientific technologies is rapidly developing into an important new field of research at Brigham Young University, demonstrating the value of modern molecular tools for the study of ancient history. Already, this research has yielded new information about the lives of ancient pharaohs and of early Christians in the land of the Nile. These research methods should significantly assist in uncovering treasures of information buried in the sands and museums of Egypt, particularly those buried within the biological antiquities themselves. Information gleaned through DNA analysis, coupled with the written records and archaeological materials available from ancient Egypt, opens windows to ancient history that, amazingly, were built into the walls that separate the present from the past.

Further results are steadily emerging, disclosing information that has been packed away in the fabrics and DNA molecules of humans who lived millennia ago. Who were these people? What were they like? How did they live? How were their families interrelated? What were the genetic effects of intermarriages? What struggles did they face? These and many other questions may find new and intriguing answers as genetic and other analyses of ancient burials in Egypt continue.

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NOTES

All the figures in this article are used courtesy of the BYU Egyptian Archaeological Project.

1 The Fayum is a governorate located south of Cairo.
2 For further information, see C. Wilfred Griggs, Excavations at Seila, Egypt (Provo, Utah: Brigham Young University Religious Studies Center, 1988).
5 Gospel of Philip 69:15-70:5.
8 For more details, see C. Wilfred Griggs, R. Paul Evans, Marvin C. Kuchar, Mark J. Rowe, and Scott R. Woodward, “The Genetic and Textile Analysis of the Akhmim Mummies,” forthcoming in a technical report from The Australian Centre for Egyptology at Macquarie University, Sydney, Australia.
The Razing

After all this time, it shouldn't have been a surprise; it was, after all, unlivable. Parts of the roof had given up any pretense of shelter, and the world before the house was beginning to show through. Still, I could not have imagined that thirty years of life would endure so poorly, that ghosts would already stare from empty window sockets, and every wall breathe with every wind like some discarded Kenmore box, both ends broken through.

And now it was coming down. When I'd heard, I expected the gothic, towering crane, that it would take some apocalyptic wrecking ball to make such an end, this vivisection and monocide. Reality made do with one yellow bulldozer—looking especially bright now that morning was here and it could in earnest begin the few swipes from front lawn to back, dismembering perennials lying in riotous beds beneath each southern window—and a rust-pocked truck to haul it off.

Before noon, the other men unpacked sandwiches by the truck and stomped the dust from their boots; good enough men, they spoke in quiet monotone—seeing me picking amongst the limp strands of re-bar, mock oak panelling, porcelain shards—of the Dodgers, perhaps, or women they had known, the sleeker condos that would start here, then snake along the wood's edge as far as the river. The elms seemed larger now with no house for comparison; what sun came through played tricks with these open rooms, where shadows danced like half-remembered dreams.

Near the old fireplace site, the glint of glass was only a piece of photograph frame that cut my hand neatly across the palm. It would bleed till I sucked it clean.

—C. Wade Bentley
Before Columbus:  
The Question of Early  
Transoceanic Interinfluences

Striking similarities between the cultures of the Old and New Worlds before 1492 indicate there were early contacts between the hemispheres, resulting in the civilizations influencing each other.

Stephen C. Jett

My topic today is an attempt to address the question, How can we explain the existence of striking similarities between certain ancient cultures of the Old and New Worlds? Early Spanish visitors to the Western Hemisphere noted such things as pyramids in Middle America that reminded them of ancient structures in the Old World. The Spaniards also learned about certain religious beliefs that were reminiscent of Christianity, and so forth. These kinds of similarities were talked about from the very beginning of sizable European contact with the Americas at the turn of the sixteenth century.

The possible explanations for such similarities are basically twofold. One is that they resulted from independent development, separate and isolated innovation on the part of the distant cultures that resembled each other in these particular ways. The other possibility is that some historical connection existed anciently between these cultures. The second idea is the topic that I am treating here.

As my colleague at Brigham Young University, Professor John Sorenson, has pointed out in his publications, this is an extremely controversial area of research. There is a great deal of resistance even to talking about the idea of significant long-distance contacts prior to the time of Columbus. The resistance is even greater to the notion that there were significant, perhaps even fundamental, influences, especially on the New World civilizations, as a consequence of such transoceanic interactions. Dr. Sorenson has made a major
contribution to the study of this topic as cocompiler of a massive, two-volume annotated bibliography on the subject of pre-Columbian transoceanic contacts, and it will stand as a monument and a tremendously valuable research tool for those interested in this topic.¹

**Significance of Exploring Early Transoceanic Influences**

The question of transoceanic influences is an appropriate subject at a time when the first voyage of Columbus has recently been celebrated by some, deplored by others, or at least observed throughout the United States, Latin America, Spain, Italy, and other places. We have tended to take the 1492 voyage as a watershed, as a time before which no one in the Old World knew anything about the New World, a time after which massive changes took place in the New World as a consequence of the impact of Spanish, English, French, and Portuguese colonization. Major impacts occurred in the Old World as well, as a consequence of the bringing back to Europe of American food crops and great wealth from the gold and silver mines of Mexico and South America. Overall, there resulted the most massive cultural and demographic change that the world has ever experienced.² In that sense, the Columbian discovery, if it can be called that, really was a watershed event.

On the other hand, as we remember the first voyage of Christopher Columbus, it is appropriate to take a look at the possibility that Columbus not only was not first, but was a successor to the many before 1492 who crossed the Atlantic and the Pacific. We can consider the possibility, at least, that these earlier voyages, if they took place—and I do believe many did take place—had highly significant impacts on the cultures of the New World and that there were some reciprocal impacts as well, from the New World to the Old.³

The study of this twofold question is intellectually significant partly because we want to do the best we can to get a true picture of the culture history of the New World and, indeed, of the world as a whole. One thing that I have tried to do in my work is to put the cultures of the New World, particularly the civilizations of the Western Hemisphere that existed before Columbus, into the context of global history. Too often, those advanced cultures have been
considered as isolated phenomena that had nothing to do with the history of the rest of the world. Archaeologist Gordon Ekholm some years ago made the following observation:

This is perhaps the most important question confronting those working in the field of American archaeology and seeking to make known the true history of the American Indian. It is also a question of outstanding significance to our general understanding of how civilizations came into being, of how simple and primitive cultures develop into more complex ones.4

So the ultimate goal of studying these questions is to gain an understanding of how human cultures work, how cultural change takes place, what the nature of cultural evolution is—to what extent it is spontaneous and independent and to what extent it is dependent upon interaction between cultures and exchange of ideas. Sensitivity about this question is one of the main reasons for the controversy that surrounds the issue of transoceanic contacts before Columbus.

One version of migration to America. Rendition of a large map displayed at the national archaeology museum in Guatemala City, showing movements of peoples into ancient America.
Sensitivity exists because scholars in anthropology and other fields have had as a primary goal the formulation of a general theory to account for cultural elaboration and change.

**Resistance to the Possibility of Early Interinfluences**

The difficulty is, that in order to make generalizations in science, we need to have more than one case to observe. Ideally, we would have a considerable number of cases. It has long been recognized that there were a limited number of centers of origin of civilization in the Old World: the Mesopotamian region in what is now Iraq and adjacent countries; the Nile Valley in Egypt; the Indus Valley in Pakistan; and the Yellow River Valley in China. In the New World, there were the Mesoamerican area in Mexico and Central America, and the central Andean region of Peru and Bolivia. It was long thought that these were all independent centers of evolution of civilization, so that if you looked at each of these and determined the commonalities behind the rise of the cultures involved, it would be possible to derive general laws of the evolution of culture.

On the other hand, if it turns out—as increasingly seems to be true—that the early centers of civilization were interconnected, particularly by trade, that they actually influenced each other to a significant degree—then we no longer have the independent cases that scholars need to make generalizations about cultural development. The last bastion of independent cases seemed to be the gulf between the Old World civilizations on the one hand and the New World civilizations on the other. The prospect of losing the chance to make that vital comparison, of proving unable to test any “law” of the development of civilization by comparing independent cases, dismays those historians, anthropologists, and geographers who so much want to do so. Thus, there is a built-in disincentive to entertain the possibility that New World civilizations have a close historical connection with the Old World civilizations. That is one reason for resistance to the idea that there were early transoceanic contacts between the hemispheres.\(^5\)

There are, of course, alternative explanations to account for the cultural similarities that I mentioned. These we can call “independent-inventionist” or “isolationist” explanations. Such explanations
posit that human beings everywhere have similar psyches—similar mental capacities—and that human beings are therefore likely to approach the challenges of living and making a living in a similar fashion. This theory is sometimes termed the "psychic unity of mankind." It is an old idea—that when humans are faced with universal challenges, they tend to come up with similar solutions; and that since physical materials have particular characteristics and limitations, those characteristics channel the directions in which invention proceeds, which channeling can result in shared solutions to similar sorts of problems in widely separated areas.

Another alternative theory is that because all aspects of human life are interrelated, if a change in one part of a culture occurs, every aspect of the culture will have to adjust, in turn, to that change. So in theory, even a single change that happened to occur independently in two different cultures could lead to a whole host of similar consequences as a result of the entrained effects from the initial changes, like ripples on a pond, working their way throughout each of the cultures.

These are some of the ideas that have been proposed to explain why similarities are found in geographically separated societies. These ideas certainly have considerable plausibility as explanations of cultural parallels. With these kinds of explanations, their proponents have asked the question, "Why do we need to invoke the idea of people sailing across ten thousand miles of the Pacific in frail watercraft with incredible problems of navigation to try to explain these similarities?" So the availability of these alternative explanations has been a second reason for resistance to the idea of trans-oceanic contacts.

We have all been brainwashed, too, with the idea that Columbus was first, and we have also been subject to the ethnocentric assumption that the watercraft of Europe were always the best in the world. So we have assumed that if European ships could not and did not cross the Atlantic, then certainly the vessels of other peoples could not have crossed the oceans either, particularly something as vast as the Pacific, which is much wider than the Atlantic.

Finally, the perception exists among quite a few scholars—I think wrongly, but it does exist—that to try to account for similarities between the New World cultures and those in the Old World
on the basis of contact and influence from the Old World is a racist point of view. The complaint is that the contact hypothesis implies that Native Americans could not have come up with inventions themselves, that they had to have outside help. This view also encompasses the idea of "Great White Gods" (or Asian "gods" as the case may have been) or culture-bearers coming in and bringing the arts of civilization, an idea that is claimed to denigrate the abilities of American Indians to have produced their own civilizations that existed for thousands of years prior to Columbus.

I will return to that allegation a little bit later; meanwhile, I might also mention that at least in some circles, particularly in Latin America, it is considered "politically incorrect" to claim that there were pre-Columbian voyages from the Old World, this time not only because it supposedly subtracts from the accomplishments of countries' earlier civilizations but also because it attacks the priority of Columbus, who is the great Hispanic hero throughout much of Latin America. My feeling is that we who are scholars have to try to determine what did happen, not what ought to have happened. Our consideration should be for the truth rather than for whom we are going to please or offend. Not that I suggest being offensive, but we do need to keep our eyes on searching for the truth rather than on diplomatic considerations.

My own point of view has changed over the years. Although I started out very much a skeptic, I have become increasingly convinced that there were, indeed, contacts by sea between the Old and New Worlds before Columbus. Furthermore, I have become convinced that those contacts were not just incidental, but had extremely significant impacts. While these impacts appear to have been more from the Old World to the New, there also seem to have been reciprocal influences, which I will talk about later.

The Diffusionist Paradigm

I have organized my presentation so as to discuss general questions relating to this whole issue first, and then to give specific cases of possible contact and influence that seem to have merit. But first, I would like to talk a bit about the general perspective that diffusionists have. We could call this either the diffusionist or
Before Columbus

culture-historical paradigm (a paradigm being a general view of how things operate with respect to the question involved). Diffusionists start out with the supposition that each culture has its own unique history and experiences, with its own particular physical environment as a setting. Because of the uniqueness of these histories, to the extent that they were not in contact with one another each culture would have tended to develop in somewhat different directions and thus to exhibit distinct characteristics. To use the language of evolutionary biology, radiation would occur, and we would get something like speciation with respect to these cultures. One sees examples of this process in places such as New Guinea, where different groups are isolated from each other by the rugged landscape even though they may live only a few miles apart. Under such conditions, we get a tremendous variety of cultures.

Second, diffusionists postulate that in isolation human societies are basically conservative, that people tend to assume that what they have always done is the only proper way that things can be done, so they continue with their traditions. Under these circumstances, innovation is rare and, in fact, even deviant in a sense. Humans, according to this point of view, are really not particularly inventive—to the degree that their societies live in isolation.

Another tenet of the diffusionist paradigm is that it is easier to copy something than to invent something. If the opportunity to copy is available, people can much more readily incorporate an action pattern into a culture by imitating somebody already doing it than by sheer mental effort—indeed they may be separated geographically, the implication drawn from the diffusionist paradigm is that historical connection and influence is a more likely explanation for such similarities than independent development.

These ideas combine to imply that prerequisite to any major and complex innovation is culture contact, the coming together of cultures, cross-fertilization you might say, or even hybridization. Historians of technology point out that major changes arise by the conjoining of ideas from different sources. When two or more cultures come into contact and exchange ideas, then, of course, each culture involved in that exchange has the potential of enriching
its repertoire of ideas, adding to the knowledge it already has, bringing in new principles, thereby producing an accumulation effect. Even more important, perhaps, is that when different sets of ideas come together, they may be joined together in new ways, resulting in cultural creation by combination.

No doubt also extremely important is that by being forcibly made aware that there are other ways of doing things, the taking for granted of one's own ways is suddenly shaken and the mind is opened, freed to consider that alternatives do exist. This result is perhaps the major prerequisite for actual invention. One first has to believe, to recognize, that innovation is possible. Coming into contact with other cultures is perhaps the primary way that recognition dawns.

If we accept this general view of culture change, this diffusionist paradigm, I think that we gain a better understanding of the situation in the past, an understanding that before modern ways spread virtually everywhere, a tremendous diversity of cultures existed, including a great deal of differentiation from place to place in the degree of elaboration of cultures. There existed cultures that were extremely simple in technology and in most other aspects of culture. For example, compare the hunting-and-gathering groups of southern South America, southern Africa, or Baja California to the elaborate civilizations of the Middle East, China, Mexico, or the Andean region of South America.

Why do these tremendous differences in degree of cultural elaboration exist? Part of the reason could be differences in physical environment; certain areas were more limited in their resources than others or provided serious constraints with respect to climate which prevented agricultural development and so on. Yet, we find areas that were basically environmentally similar to one another but where very different levels of elaboration developed or that were permissive but in which little elaboration occurred. Hence, environment's effects must not be highly determining.

How, then, can we account for these differences other than by attributing them to intrinsic racial differences? I mentioned earlier that diffusionism has been criticized because of what some see as its racist implications. I suggest, rather, that the opposite is the case.
If we accept a diffusionist explanation for why innovation and elaboration in culture take place, that is, owing to cultural contact, then we have a nonracist explanation for why cultures vary in complexity in different parts of the world. Less elaborated cultures simply had less access to the ideas of others because of their isolation.

**Possibility of Pre-Columbian Ocean Crossings**

All of the foregoing is by way of background to more immediate issues. First, *could* people have crossed the oceans in early times, and more specifically, *did* people in fact make such voyages, and if so, who went where? These questions apply not only to pre-Columbian times generally, but even at least as far back in time as the fourth millennium B.C. There is concrete reason to say very definitely, “Yes, they could have made crossings.” Contrary to our assumption of the superiority of European ships, Southeast Asia actually seems to have seen the development of the earliest seaworthy craft. People there came up not only with many different kinds of very capable watercraft, but also with effective sailing rigs—how sails were hung and manipulated—to allow sailing against the wind, that is, tacking. Even the rigid-hulled ships of the Mediterranean world were capable of crossing the ocean well before 1000 B.C. But other dramatically different vessel traditions existed, notably in southern and eastern Asia. One of these, on the coasts of southern Asia, featured sailing rafts, and a second was characterized by sailing canoes, which became typical of Indonesia and the Pacific islands. A third was the junk tradition of China and neighboring lands, the characteristic Oriental type of watercraft.

These three great traditions of ocean-going sailing vessels existed in Asia in surprisingly ancient times. Each provided possible means for long-distance voyaging, including crossing the entire Pacific, which is ten thousand miles wide in places. We know that Polynesians and other Pacific island peoples, for example, were living on their islands in some fairly remote parts of the Pacific by the mid-second millennium B.C., so Neolithic peoples were certainly capable of notable voyages.

Many of us have been falsely led to believe that Columbus was the first to conceive the idea of a spherical earth, that everybody
else up to his time thought the earth was flat. That was not at all the case. In fact, the Greeks and the Chinese had already developed the spherical-earth theory—by the sixth century B.C., in the case of the Greeks. The Greeks had even developed a system of coordinates to describe locations on the earth, similar to latitude and longitude.\textsuperscript{11} Columbus certainly was reasonably well read with respect to the ancient geographers and was quite aware of this sort of knowledge, as were most educated people in the Renaissance period.

In the maritime world of Southeast and East Asia, navigational abilities were highly developed, including celestial navigation, which utilizes the heavenly bodies, as well as knowledge of other natural phenomena to find locations. But in any case, we are not talking about finding tiny specks of land or one particular small harbor. We are talking about sailing across the ocean and hitting a continent. As one sixteenth-century Spanish navigator put it, "The most stupid can go in their embarkations . . . to seek a large country—since if they do not hit one part they will hit another."\textsuperscript{12} And so, navigation was not really a big problem for ancient mariners in terms of hitting a continent. Asians did, nevertheless, have some highly developed methods of navigation. The Chinese, in fact, many centuries ago developed the magnetic compass, which ultimately spread to the Western world.

The prevailing winds and currents of the globe also have a great deal to do with the possibilities of transoceanic voyaging. Figure 1 points out ocean surface currents. These currents are generated by major prevailing wind systems that are approximately parallel, so if sailors were aware of the existence of these persistent winds and currents, they could locate an appropriate channel and thus greatly facilitate traversing the ocean. In the Atlantic, there is a major current from Africa to the New World that comes down through the Canary Islands and then flows westward to hit the Caribbean region. Return voyages could be made via the Gulf Stream and North Atlantic Current. In the Pacific, the most likely route from Asia to the Americas was by way of the Japan and North Pacific currents, whose extension comes down the coast of California. A return might be possible by way of the North Equatorial Current, which arrives at the Philippines from the east.
Figure 1. Generalized map of the principal ocean currents: (a) Japan–North Pacific Current; (b) California–North Equatorial Current; (c) Equatorial Countercurrent; (d) Peru–South Equatorial Current; (e) Antarctic Drift; (f) Irmingen Current; (g) Gulf Stream–North Atlantic Current; (h) Canaries–North Equatorial Current; (i) Benguela–South Equatorial Current.
Reasons for Transoceanic Crossings

It may reasonably be asked, "What could possibly have motivated people to make extraordinarily long voyages such as we are talking about here?" Part of the answer is that such voyages may seem long in terms of miles, but in terms of time, depending on sailing speed and so forth, traverses of the Pacific could be accomplished in a few months under ideal conditions. Certainly, there were accidental discoveries. There is good historical evidence that considerable numbers of Asian watercraft were dismasted in storms or otherwise damaged, then drifted across the north Pacific, and, because of the currents and winds, were naturally brought ashore on the coasts of North America. We have accounts of such drift voyages from Japan. So accidental Pacific crossings were possible and certainly did take place, at least in recent centuries.

I also think it likely that intentional voyages were made, perhaps being more frequent even than accidental voyages. In terms of motives, I think we should not underestimate the importance of the simple spirit of adventure that we see today in people engaged in all kinds of explorations. Earlier peoples had this spirit of adventure in many cases as well; they wanted to see what was over the horizon. But more pragmatic considerations may also often have been involved. If, for example, some area was becoming excessively populated and there was not enough agricultural land remaining for the population, motivation would be strong for people to seek new lands. This is a very common phenomenon in history.

The motives also presumably included seeking wealth, developing trade relations, and seeking out precious materials such as metals or precious stones. Certain kinds of feathers were extremely valuable in both Asia and America, as were furs and various kinds of drugs used for religious and other purposes. These kinds of items were traded and served as easily transported, high-value products that might have been incentives for initiating and continuing contacts between almost anywhere, including between Old and New Worlds. Then, there was missionary activity. The Buddhists, for example, were very active in missionizing during certain periods of Buddhism, and we need to consider that as a possible motive.
Biological Evidence of Early Transoceanic Contacts

I believe that the foregoing facts demonstrate that transoceanic voyages in early pre-Columbian times were definitely feasible. Motives certainly existed, motives similar to those familiar to us today. But is there evidence of actual contacts? What can we say about that? First we must ask, What kinds of evidence would demonstrate, or at least suggest, contact?

The best kind of evidence may be in the biological realm. Scholars have given much attention to cultivated plants and domesticated animals as indicators of human movements in early times. In some cases, we can find archaeological remains of certain indicator plants and animals, and I will mention one or two particular instances later. The significant thing about biological entities is that they are not human inventions. People cannot have invented independently the same cultivated plant unless they had the same wild ancestor available from which to domesticate that plant. (With very few exceptions, the Old and New Worlds do not share the same wild ancestors that gave rise to cultivated plants). Most cultivated plants, again with some exceptions, are not readily transferred successfully by natural means and do not thrive on their own without human intervention. Indeed, some cultivated plants are unable to reproduce at all without human aid. Corn is one example. Bananas are another. And yet there is, for both of these plants, significant evidence that they were present on both sides of the Pacific in pre-Columbian times.

Human parasites have also been researched in recent times as indicators of early transoceanic contacts. Certain parasites are tropical and, owing to the nature of their transmission and reproduction, could not survive in human populations migrating through the Arctic by way of the Bering Strait, and yet, certain Asian species of intestinal parasites have been found in pre-Columbian remains in South America. The only plausible explanation that has been offered is that humans carried these pests directly via sea voyages.

Other kinds of biological evidence suggesting transoceanic contact are physical anthropological measurements and other characteristics, such as human blood groups and other serological factors. For example, certain mummy bundles from pre-Columbian
burials unearthed in Peru are interesting because the color and the form of the mummies' hair are like those of Caucasian peoples rather than the usual American Indian Mongoloid type. This suggests the presence of a foreign racial type in early Peru.

**Archaeological Evidence**

From archaeology we have sculptural depictions in stone and clay of individuals who give the appearance of being non-"Amerindian" types—bearded figures, for example (see figure 2). Some of these representations have been suggested to be actual imports from the Mediterranean world. Also as potential evidence, we have occasional artifacts and materials originating in the other hemisphere. However, most of the small number of objects found in the New World that are of ancient Old World origin have not been found in situations or archaeological contexts that give much confidence in their validity as evidence. Ancient objects could have been brought later—even by modern travelers—and then discarded or lost, only to be found by somebody else and concluded to be ancient in the area of discovery. There have been some items considered to constitute reliable evidence (for example, Polynesian axes on the coast of South America), but they are few.

Another area of some promise, but still quite controversial, is New World inscriptions written in ancient Old World languages and alphabets. I am not going to get into that particularly, but it is an area that is being actively investigated. However, this evidence needs much more rigorous study before we can have firm confidence in it.

**Evidence of Cultural “Trace Elements”**

The most abundant type of evidence, and that which has attracted the most scholarship, is what we might call "cultural trace elements." These are not broad, general similarities in cultures, but are typically highly specific and unusual minor features, what we term "arbitrary" cultural characteristics—peculiar things that are not called for by any universal human needs or by properties of the materials involved. For instance, cultural trace elements may include particular words that mean the same thing in separate languages,
Figure 2. Olmec stone sculptures from Mexico depicting faces with Old World racial traits: (a) Stella 3, La Venta; (b) Monument 1, San Lorenzo.
or shared unusual beliefs and practices. Or they can be art motifs or styles, in which there is normally a great deal of scope for variation, so that when you find very detailed similarities, “independent invention” is not a reasonable explanation. When one finds these sorts of arbitrary traits held in common by widely separated cultures, such traits raise the possibility that there was contact, because they are not the kinds of things likely to have cropped up even once, much less twice or more. By the same token, any highly complex cultural phenomenon is unlikely to have arisen more than once.

Important in making comparisons of cultural trace elements is their spatial and temporal grouping. Similarities are less convincing indicators of contact if they are thousands of years apart than if they are from about the same time period. Geographical clustering is another factor, because the greater the number of co-occurring commonalities, the greater the probability that there was historical contact and exchange between the specific locations involved.

**Indications of Lungshanoid Contacts.** The following are among the earliest examples of fairly probable contacts. First, we find a culture called Lungshanoid, in what is termed Neolithic times, on the southeast coast of China around the mouth of the Yangtze River (Chang Jiang). Archaeological excavations of Lungshanoid sites have revealed several pottery vessel forms that are very, very similar to some early New World pottery that we call Formative. In figure 3, we see these vessels from China compared with those from the New World, and there are striking similarities. Bark cloth, which is made by beating tree bark to make a felted cloth-like material, is also manufactured in both hemispheres. In the archaeology of Southeast Asia and Middle America are found the bark-cloth beaters shown in figure 4. Five of those illustrated are from Mexico, the two others from Southeast Asia; the implements are almost identical. There are also dozens and dozens of different aspects of the process of bark-cloth manufacture that are shared between the two areas, and many of these practices are arbitrary—not required by the actual process, but nevertheless performed in a particular manner in both areas.¹⁸

At two Neolithic archaeological sites in southeastern China, peanuts have reportedly been dug up, yet the peanut is a South
Figure 3. Pottery from pre-Christian South China and Southeast Asia (A, D, E, G, I) compared to similar forms from Tlatilco, Mexico (B, C, F, H, J). From Tolstoy, "The Maya Rediscovered."
Figure 4. Nearly identical Southeast Asian and Mesoamerican bark-cloth beaters: (a) and (b), central Celebes, Indonesia; (c), (d), (e), (f), and (g), Middle America.
American domesticate. Because we do not have access to the specimens, some Western archaeologists and botanists wonder whether the identifications are accurate, but competent Chinese scientists have accepted the identifications.¹⁹ South China also had the sailing raft, which is found in northwestern South America as well.

**Indications of Indonesian Contacts.** Another area which gives good evidence of probable contact in very early times—during the first three millennia b.c.—is Indonesia. We find in common between Indonesia and tropical South America such practices as shifting cultivation based on crops that reproduce by cuttings rather than seed, long houses (communal dwellings, often on stilts), headhunting and ritual cannibalism, and a long list of other shared cultural traits. One of these is the blowgun, which I have studied at some length. Dozens of characteristics of the blowgun complexes are held in common in early Indonesia and tropical South America. Dugout canoes, including sailing canoes, also existed in both regions, and the same name is applied to certain canoes in coastal parts of South and Middle America and in Southeast Asia.

As a possible triggering mechanism for some of the voyages that I have suggested as having taken place from Indonesia to tropical South America, I propose sea-level rises that occurred after the end of the Pleistocene period. Most of you probably know that with the melting of the glaciers around ten thousand years ago, sea levels rose quite quickly by three hundred feet or perhaps even more. What is not as well known is the fact that off the south coast of China and into Indonesia, there were submergences of lands that took place much later than the end of the Pleistocene. These submergences occurred during the late b.c. millennia I am talking about here. The sea level rose as much as four meters (fifteen feet). The general rise in ocean level at the end of the Pleistocene Age would have inundated tremendous areas of what is now shallow water in the South China and Indonesian seas, and the later relative rises of sea level would have resulted in the further covering of enormous areas of presently existing land in Sumatra, Java, and Borneo. The obliteration of such huge extents of settled land would almost certainly have provided an incentive for people to move elsewhere if they happened to be aware
of other places to go. One very comparable environment to which some of them may have gone would have been the tropical areas of South America. Figure 5 shows a possible route across the North Pacific from Southeast Asia to tropical America.

**Origins of the Olmec.** As I have noted previously, figure 2 shows two stone sculptures from the Olmec civilization, the first great civilization of Mexico. This picture shows not only the kinds of sculptures the Olmec produced but also exhibits racial characteristics of apparent Old World type rather than of any local “Indian” population. The giant stone heads have often been considered to exhibit Negroid characteristics, and the relief sculpture on the left has been thought by many to have the appearance of a Middle Eastern physical type. One hypothesis holds that ancient Egyptians were instrumental in the seemingly sudden inception of the Olmec, Mesoamerica’s first “high culture,” a few centuries before 1000 B.C. That culture involved, in addition to the sculptures, massive earthen platforms and mounds as well as organized religion. Mexican Indian legends recorded later spoke of bearded culture-bearers coming from across the eastern sea. Shang Dynasty China has also been considered as a possible major influence on the Olmec, possibly contributing religious iconography and the use and veneration of jade. With respect to jade, at least in later times China and Mexico shared a number of arbitrary beliefs about, and uses of, jade—for example, the concept that jade boulders could be found by sensing their “exhalations” and the placing of a piece of jade in the mouth of a corpse. There may be a relationship, too, between Olmec and Chinese knowledge of magnetism.

**Indications of Hindu and Buddhist Contacts.** Possible contacts much later in time than the ones I have mentioned so far concern the proposed Hindu and Buddhist influences on the Maya and Toltec of Middle America, just prior to A.D. 900. Items in common include the use of friezes showing a garland of lotuses or waterlilies with human figures holding the stems and fishlike creatures (for example, the mythical *makara* of southern Asia) at the ends (see figure 6). Also in the sculpture of the Buddhist and Maya worlds, we have particular formal gestures and seating positions. In India these are called *mudras* and *asanas*. We cannot know for sure what the
Figure 5. Probable sea route from Southeast Asia to tropical America, as suggested by Meggers (1971). O stands for the Olmec, M for Maya, V for Valdivia, and B for Bahia.
meanings of these positions were among the Maya, because neither knowledge of the positions nor any written explanation seems to have survived, but we do know them in Asia; and at least in terms of the positions themselves, we find great similarities.

Reciprocal Influences

Finally, I want to suggest the possibility of reciprocal influences from the New World to the Old. Looking again at the Maya and the Hindu/Buddhist areas of southern Asia, and particularly Cambodia, consider two things in figure 7. The left side shows two stepped pyramidal platforms, on top of which are temples. The upper structure is in Guatemala; the lower one is in Cambodia. In Mesoamerica a long sequence of evolutionary development lies behind these temple pyramids. But in Southeast Asia they suddenly appear around A.D. 800 in Cambodia and Java. To me, this situation suggests the possibility of an influence from Middle America to southern Asia.

On the right side of figure 7 is a sculpted figure from a temple in southern India of late pre-Columbian age. The personage is holding in his hand an ear of corn. My colleague at the University of
Figure 7. *Left*, similar first-millennium A.D. temple pyramids: (a) Maya, from Tikal, Guatemala, and (b) Khmer, from Angkor, Cambodia. *Right*, (c) relief figure holding ear of maize, Halebid, Karnataka, India.
Oregon, Carl Johanessen, has gone into great detail studying these sculptures and has found that the objects held can be nothing but corn, which is a native American crop. However, these sculptures date some centuries before the time of Columbus and the usually assumed Spanish and Portuguese introductions of maize to Europe and Asia.

As my last observation with respect to this possible Mayan/southern Asian connection, I mention something you may be familiar with, namely, that Mayan civilization largely collapsed around A.D. 900. Extensive areas were depopulated, and tremendous cities were abandoned. I would like to suggest the possibility that the same sort of thing that happened to the Indians of the New World after Columbus's voyages also happened earlier with respect to the Maya. That is, the introduction from the Old World of diseases to which the local natives were not immune may have triggered the Mayan collapse.23

Conclusion

In conclusion, I would like to repeat that the question of whether or not early ocean crossings and contacts took place, and especially, whether voyaging resulted in major influences in one or both directions, has profound implications for our understanding of cultural history and its processes. It is my belief that ancient Old World watercraft were completely capable of making oceanic crossings with relative safety and speed, and that there existed, in various times and places, sufficient motives for long-distance exploration and even settlement (including seeking new lands, obtaining precious materials, and making religious converts, as well as fleeing personal constraints, scarcity, and turmoil at home). It is plausible, moreover, that once transoceanic discoveries were made and contacts established, opportunities for diffusion of culture—massive, in some cases—were created. Evidence is both biological (certain shared crop plants and intestinal parasites, for instance) and cultural (e.g., the bark-cloth and blowgun complexes). I believe it likely that many unrecorded (and perhaps a few recorded) crossings occurred and that these did have highly important, perhaps fundamental, impacts, particularly on the emergence and development of a number of Middle and South American cultures. Among the impacted recipients may have been Amazonian tribes, the Olmec, and the Maya.
Columbus’ voyages certainly precipitated the most massive cultural and demographic changes the world has ever known; but the Admiral of the Ocean Sea may have been only the latest in a long line of transoceanic voyagers.

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NOTES


3 Of course, I use these terms Old and New worlds as we conventionally use them. One can object and say that the hemispheres are both of equal antiquity and that speaking of a “New World” is an ethnocentric European point of view. But since these terms are well imbedded in the language, I will continue to use them.


6 See, for example, Pierre Honoré, In Quest of the White God: The Mysterious Heritage of South American Civilization (London: Hutchinson, 1963); Constance Irwin, Fair Gods and Stone Faces (New York: St. Martins Press, 1963); Robert F. Marx with Jennifer G. Marx, In Quest of the Great White Gods: Contact between the Old and New World from the Dawn of History (New York: Crown, 1992); and


For general discussions of physical-anthropological comparisons and of artifacts, see Jett, "Diffusion versus Independent Development," 29-30, 50-52, and references. Mitochondrial-DNA studies hold promise in this connection.

The methodology of cultural comparisons is discussed in Jett, "Diffusion versus Independent Development," 5-59.


Since this address was presented, plant geographer Carl Johannessen has examined one of the specimens and has concluded that it is not a peanut (personal communication, April 1993).


For a summary of proposals, see Jett, "Pre-Columbian Transoceanic Contacts," 350-54, 366-69. The principal proponents have been R. A. Jairazbhoy and Betty J. Meggers.

These proposals concerning Southern Asia and the Maya are summarized in Jett, "Pre-Columbian Transoceanic Contacts," 374-81; and Jett, "Asian Contacts with the Americas," 66. Important modern contributors to this discussion have included Robert Heine-Geldern, Gordon F. Ekholm, David H. Kelley, Paul Kirchoff, Thomas S. Barthe, Balaji Mundkur, and Kornelia Giesing. On corn in India, see Johannessen and Parker, "Maize Ears Sculptured"; and Johannessen, "Distribution of Pre-Columbian Maize." See also, John W. Verano and Douglas H. Ubelaker, eds., Disease and Demography in the Americas (Washington: Smithsonian Institution Press, 1992).
Robes with ribbons tied on shoulders. Early Christian burials with multiple layers of clothing often include one or more robes with linen strips wrapped around the upper half of the body and gathered into a knot on either the left (top) or, more commonly, on the right shoulder (bottom). These robes were among ten like them placed on the same burial. The knots may indicate priestly authority.
Turning the Hearts of the Fathers to the Children: Nurturing the Next Generation

Although other forces threaten our children, the Spirit of Elijah is turning many fathers toward nurturing their children, fighting abuse and childhood diseases, and caring for the environment.

Alan J. Hawkins, David C. Dollahite, and Clifford J. Rhoades

The Old Testament opens with an account of God creating order from chaos to provide an earth on which his children could dwell. Through disobedience, however, the children of Adam and Eve turned their hearts away from their Father; consequently, they separated themselves from God, and the ground has been periodically cursed. Interestingly, the Old Testament concludes with the Lord telling the world through Malachi that if there is not a returning of children's hearts to the fathers and of fathers' hearts to the children the earth will again be cursed or destroyed:

Behold, I will send you Elijah the prophet before the coming of the great and dreadful day of the Lord: And he shall turn the heart of the fathers to the children, and the heart of the children to their fathers, lest I come and smite the earth with a curse. (Mal. 4:5–6; see also D&C 27:9, 110:15)

Malachi's prophecy is one of the most far-reaching and profound prophecies in the scriptures. This article explores some of the multiple messages embedded in the prophecy of Elijah's latter-day mission. In a recent address, Elder Dallin H. Oaks taught that an important aspect of Latter-day Saint scripture study is an understanding that many scriptures have multiple meanings and messages. He included the prophecy of Malachi as one example. The sealing powers restored to the Prophet Joseph Smith by the hand of Elijah

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have broader application than temple ordinances performed for the living and by living proxies for the dead, although this is unquestionably the central function of the sealing powers. The Spirit of Elijah is further manifest in building and strengthening links between fathers and children in time as well as eternity. In this article, we reflect on how the powers associated with the Spirit of Elijah seem to be turning many living fathers’ hearts to their children for the benefit of all.

We offer one caveat before proceeding, however. The prophecy of Malachi uses the term fathers. The scriptures often use male gender terms such as father, son, and his when referring to both men and women. No doubt most of our reflections on the meanings of this passage of scripture apply to both men and women, fathers and mothers. Still, as we shall argue, the use of the specific term father may be appropriate because generally the connections of fathers to their children are weaker than those of mothers. Thus, without diminishing the roles of women, we focus in this article mostly on men’s hearts and fathers’ connections to children.

Fathers and Children

Malachi’s prophecy refers to two kinds of connections, or more specifically, to connections going in two directions. One connecting direction is that of children to the fathers, a link that points the current generation back in time to their predecessors, both living and deceased. Latter-day Saints employ this aspect of Malachi’s prophecy to explain labors in family history, genealogical research, and proxy temple work. Turning the hearts of the children to the fathers may also refer to relationships with living family members. For example, children are admonished to respect and honor their parents (Ex. 20:12) and to care for aging parents (Gen. 45:7-11).

The focus of the present article, however, is on the second connecting direction in the prophecy, one on which we seldom reflect—that of fathers to the children. This link points forward in time, suggesting a concern with our children and our children’s children. President Harold B. Lee taught that the full mission of Elijah involves the turning of parental hearts to the children here and now:
[It] applies just as much on this side of the veil as it does on the other side of the veil. If we neglect our families . . . how could we feel that we are doing our full duty in turning the hearts of our children to their fathers. . . . So, the hearts of you fathers and mothers must be turned to your children right now, if you have the true spirit of Elijah, and not think that it applies merely to those who are beyond the veil.\(^2\)

It is time for us to think of turning the hearts of parents to children now while living, that there might be a bond between parents and children that will last beyond death. It is a very real principle, and we should consider it.\(^3\)

Similarly, in a recent conference address, Elder James E. Faust taught:

Perhaps we regard the power bestowed by Elijah as something associated only with formal ordinances performed in sacred places. But these ordinances become dynamic and productive of good only as they reveal themselves in our daily lives. . . . This sealing power thus reveals itself in family relationships, in attributes and virtues developed in a nurturing environment, and in loving service. These are the cords that bind families together.\(^4\)

In this article, we attempt to build on the foregoing principles of familial relationships and to explore their implications. First, we use the Greek and Hebrew texts of Malachi’s prophecy as a way of identifying additional meaning in that scripture. Next, we provide a historical overview of the changing relationships of fathers to their children. Then, we develop in both scriptural and secular terms the concept of *generativity*, which refers to a turning of hearts to nurture the next generation. With this base, we then suggest that, although there are powerful forces trying to destroy connections between family members, the Spirit of Elijah in the last days is influencing Latter-day Saints and others to help build stronger, more intimate relationships between fathers and their children; promote a greater sense of community in which we are concerned about our neighbors’ children as well as our own; improve the status and well-being of children; and preserve a healthier natural environment for future generations.

**Greek and Hebrew Texts**

Studying the earlier versions of biblical passages often opens our understanding to additional meanings in particular scriptures.\(^5\) In this case, the breadth of meaning in the texts of Malachi 4:5–6 is
richly consonant with the truths preached by President Lee and Elder Faust. The ancient Greek Septuagint and Masoretic Hebrew texts of the Old Testament illustrate the breadth of Malachi’s prophecy. While the King James Version speaks of "turning the hearts of the fathers to the children," the Greek text speaks of "returning," stating that Elijah will “restore” the heart of father to son and the heart of man to his neighbor, lest [the Lord] come and smite the earth grievously” (LXX Mal. 4:3; italics added). Furthermore, the Jewish Publication Society’s translation of the Masoretic Hebrew version of this passage reads: “He shall reconcile fathers with sons and sons with their fathers, so that, when I come, I do not strike the whole land with utter destruction.”

Neither of the earlier versions implies that Elijah will be establishing the father-child connection for the first time or that the scripture is exclusively concerned with genealogical matters. The Septuagint uses the Greek word *apokatastasei,* which means to turn again or to restore, suggesting that Elijah will assist in “bringing people back into the relationships of love and concern that once prevailed.” The Masoretic text employs the Hebrew verb *shûb,* which is one of the most frequently used verbs in the Old Testament and has rich meaning. Linguistically, *shûb* connotes restoring or returning, even bringing home again, often with a strong sense of repentance, both of turning away from evil and of returning to the good. Accordingly, both the Septuagint and Masoretic texts of Malachi 4 suggest that Elijah’s task will be to restore relationships between fathers and children to the way they once were, perhaps in the premortal state or at some earlier point in human history.

In addition to addressing the father-child relationship, the Greek text of Malachi adds another dimension to Elijah’s mission: restoring the heart of man to his neighbor. This suggests that the Spirit of Elijah will not only seek to reconcile fathers to their own children, but also strive to restore a sense of responsibility of fathers to all children, thus restoring a deeper sense of community among all people on earth.

**Recent Historical Perspectives**

In a spiritual sense, the hearts of children are turned away from their Heavenly Father through sin. But our Heavenly Father’s
heart is always turned toward his children (2 Ne. 26:24–28; 3 Ne. 9:14; Matt. 23:37; D&C 43:24). By contrast, however, many mortal fathers have turned their hearts away from their children.

The past two hundred years of western civilization have seen dramatic changes in family relationships, resulting mainly from the twin forces of industrialization and urbanization and the radical individualism that accompanies these forces. Looking only at the latter half of the twentieth century, it is tempting to conclude that women’s roles in the family have changed the most as mothers have dramatically increased their participation in the paid labor force. In comparison to family life in preindustrial times, however, it is the role of men rather than of women that has been fundamentally altered.

For the majority of people two hundred years ago, women’s and men’s labor was domestic; both played essential, although different, roles in the domestic economy that sustained family life. Skilled maternal and paternal labor was required to turn raw materials into domestic goods for consumption. When harvest time arrived, the laborer’s gender and age were of little concern—all were needed. Moreover, in an agricultural and rural setting, both mothers and fathers were intimately involved in the daily lives of their children. Sons worked long hours alongside their fathers, while daughters worked primarily with their mothers.

In addition, fathers were directly charged with the moral and spiritual rearing of their children. If fathers were literate, they were also responsible for teaching their children to read and write. Clergy delivered child-rearing advice to fathers, who were seen as having the main responsibility to guide their children through the harsh realities of the adult world.11

As industrialization and urbanization gained momentum during the nineteenth century, most fathers became increasingly separated from their children. Most fathers left the home and farm to work in factories for long hours each day, six days a week. As a result, the paternal role was redefined as economic provider, while mothers assumed full responsibility for the domestic tasks of child rearing and housework. Notions of the abilities of mothers to properly raise their children shifted to meet these changing economic circumstances; mothers became the guardians of the domestic realm,
keeping children sheltered from the harsh and immoral realities of the economic realm in which the fathers were forced to participate.\textsuperscript{12}

The spatial and temporal separation of fathers from children seemed to precipitate a growing sense of psychological and spiritual separation of fathers from children as well. Even today, while fathers work fewer hours than their grandfathers and great-grandfathers did and mothers often work outside the home, most fathers still spend little time with their children.\textsuperscript{13}

When the recent data on divorce and nonmarital childbearing are added to this portrait, we see fathers as increasingly on the periphery of children's lives. Demographers now estimate that more than half of first marriages will dissolve and two-thirds of children in the United States born in the 1990s will experience the break-up of their parents' marriages.\textsuperscript{14} Nearly 90 percent of children remain in the custody and care of their mothers after divorce. Moreover, only about 25 percent of children see their noncustodial fathers on a regular basis. One-quarter of children are currently born to unmarried mothers, and many receive very little paternal influence.\textsuperscript{15} The demographic evidence is clear: American men, in general, are spending less and less of their adult lives in households with children.\textsuperscript{16}

Furthermore, the current hegemonic virtue seems to be individual freedom, not concern with the well-being of one's own children or those of one's neighbors. The doctrine of individualism insists that individuals must be unfettered to pursue personal courses of self-fulfillment. Connections to other people and institutions are valued not in and of themselves, but only as they add to the bottom line of self-fulfillment. When these human or institutional connections begin to constrict self-fulfillment, then virtue, as the doctrine of radical individualism defines it, demands that individuals loose themselves from such bands. Thus, radical individualism argues that relationships that restrict are wrong; they must be changed into or exchanged for relationships that energize and support self-fulfillment.\textsuperscript{17} Even familial relationships are to be based on self-fulfillment, not anachronistic folk notions of traditional family obligations.\textsuperscript{18}

Note the contrast between this philosophy and important parts of the Savior's teachings. Whereas the Savior taught that the self is found
indirectly through service to others (Mosiah 2:16–19), disciples of
individualism preach that the self is discovered directly by pursu-
ing one’s own course, using relationships and institutions as conve-
nient stepping-stones toward some individualized, imagined end.

The dominant ethos of individualism affects not only family
relationships, but relations among unrelated people as well. People
today often know more about their neighbors on the other side of
the planet than they do about their neighbors next door or down the
street. The weakened sense of neighborhood or community seems
to have stemmed from the West's conversion to the secular gospel
of individualism over the past few centuries. Many believe that
everyone watching out for himself or herself will eventually produce
a society in which everyone is taken care of. But having freed
themselves from the bonds that selfless caring for others necessarily
brings, people may find themselves so disconnected from familial,
community, and institutional relationships that their unfettered
self-fulfillment feels like desperate loneliness.19 Such a world might
well be described as “cursed.”

These trends clearly indicate there has been a significant turn-
ing of paternal hearts away from their children. But is it possible
that the Spirit of Elijah in this last dispensation is exerting a counter-
force to the momentum of those powerful forces? The Spirit of Elijah
may be doing much more than influencing people to search out
genealogical records and provide saving ordinances for their ances-
tors. It may be manifest in the lives of men and fathers when they turn
their hearts to nurture the next generation in a variety of ways. Latter-
day Saints note how genealogical interest increased dramatically
after Elijah restored the sealing keys. Similarly, it is becoming increas-
ingly accepted that children also need greater nurturance and gentle
guidance.20 In secular circles, the process of nurturing the next
generation is referred to as generativity.

Generativity: Secular and Sacred Perspectives

Developmental psychologists have found that nurturing the
next generation is important to adult psychological health.21 Erik
Erikson, an influential theorist of human development, first arti-
culated this concept in his theory of healthy development across
the life-span. He hypothesized that a person must develop three fundamental characteristics to become psychologically healthy and mature: hope, fidelity, and care. The development of each of these characteristics takes center stage at one of the major periods of the life-span: childhood, adolescence, and adulthood, respectively.22

First, children must develop a basic trust that the world is a safe, good place to live. Next, adolescents need to develop a sense of their own identity and a fidelity to that identity.23 Last, the primary task of adults is to develop generativity, which Erikson defined as learning to care for and nurture the next generation. The primary locus of this developmental process is in the family (although Erikson allowed that generativity could also be developed in other settings like teaching or coaching where one is investing in some productive activity centered on nurturing the younger generation or creating a better world for future generations).

Failure to develop generativity in adulthood results in pursuing false forms of intimacy, self-absorption, and isolation.24 Interestingly, Erikson himself noted the similarity of his three major life-span developmental tasks to the Christian virtues of hope, faith, and charity.25

Sustained nurturing involvement in the lives of children provides potent inoculations against the pathology of egocentrism. Children have a way of making people around them grow up and become less self-centered. They deflate the adolescent preoccupation with self that is often carried into adulthood in a self-centered culture. Of course, the nurturing of children requires tremendous energy and effort; it can drain emotional reserves and restrict personal freedom. But it is also liberating, as parents come to realize that their own needs are not nearly as demanding as they once thought. Moreover, parents come to develop an additional kind of love for each other, one that is more Christlike than romantic. Parents gain a sense of their capacities to give and love without regard to a "return on their investment."

In developing Christlike family relationships, parents come to understand their Father in Heaven in a way that was previously beyond their comprehension, and sense, possibly for the first time, their divine parenting potential as they identify with God, who is engaged in the same work they are. They come to "behold" the nurturing of God, who said, "This is my work and my glory—to bring
to pass the immortality and eternal life of man” (Moses 1:39). Ultimately, parents can come to the knowledge that God's cosmic career centers around caring for his children. Accordingly, godhood is about nurturing children; generativity, the nurturing of children, is the beginning and end of godhood. Hence generative sacrifice brings forth not only the blessings of heaven, but also a deeper sense of heavenly possibilities.

God the Father's nurturance for his children is powerfully exemplified by his relationship with his Only Begotten Son. Jesus on numerous occasions describes the relationship with his Father as complete oneness (for example, John 17:3). Only once during his mortal life, briefly at the end, did the Son feel distant from his Father (see Matt. 27:46), but even this painful experience at Golgotha was necessary for the Father to glorify his Son.

In addition, note the nurturing introduction from the Father each time he introduces his Son to an individual or a group: "This is my beloved Son, in whom I am well pleased" (Matt. 3:17; see also 3 Ne. 11:7; compare JS-H 1:17). Mark and Luke render this paternal passage even more personally: "Thou art my beloved Son; in whom I am well pleased" (Mark 1:11; compare Luke 3:22). In these communications, the Father speaks openly of his love for his Son, of their emotional connection, and shows his pride in and approval of Jesus' behavior. These nurturing words are a divine pattern all fathers should try to emulate.

Emerging Evidence of the Spirit of Elijah
Turning the Hearts of the Fathers

Encouraging signs that many fathers are responding to the Spirit of Elijah and turning their hearts to the children include the following: (1) a small but growing number of fathers are becoming more involved in the daily care and nurturing of their children, (2) the status of children is improving, and (3) people are showing greater concern for the natural environment that will be passed on to future generations.

Greater Paternal Involvement. As discussed earlier, too many fathers are disconnected from their children. Yet there is an emerging consensus in Western countries that such disconnection
is not good. Family researchers have found that most men and women now believe that fathers should be intimately involved in the daily care of their children. Although some researchers have measured only small increases in the amount of time American fathers are devoting to child care, other researchers are finding a small but growing number of men, especially younger ones, who are reshaping their occupations and identities to accommodate higher levels of involvement in their children's daily lives. The results generally have been positive for men, their wives, and the children they care for together.

The Prophet Joseph Smith believed that fathers should be involved in the daily family work. An early Latter-day Saint, Jesse Crosby, once observed Joseph doing "menial" tasks in his home, including some child-care tasks, and expressed his disappointment that one with such a high calling would be involved in such lowly labor. Joseph kindly responded, "If there be humiliation in a man's house, who but the head of that house should or could bear that humiliation?"

Every LDS Church President since President David O. McKay has echoed the ninth President's words that "the most important of the Lord's work you and I will ever do will be within the walls of our own homes." Elders James E. Faust and Carlos Asay have recently urged husbands to be more helpful in sharing household tasks and caring for children. Elder G. Homer Durham counseled, "Man . . . has obligations to learn the difficult art of fatherhood in homemaking." President Benson also believes husbands should participate in domestic duties:

Flowers on special occasions are wonderful, but so is your willingness to help with the dishes, change diapers, get up with a crying child in the night, and leave the television or newspaper to help with the dinner. Those are the quiet ways we say 'I love you' with our actions.

Some of the recent institutional changes in the Church reinforce the concern of Church leaders that fathers move from the periphery of daily family life to its center. For instance, the consolidation of Sunday meetings stemmed in part from a concern for giving fathers more time to be with and guide their children. In addition, fathers are constantly urged to exercise their priestly functions.
as spiritual leaders in their homes. In a First Presidency letter (August 1993), Church leaders stated, "Because this responsibility for our children is so important, we must rededicate ourselves to nourish and bless them temporally and spiritually."

These injunctions have little to do with reasserting dominion in the domestic realm (see D&C 121:35–46) but everything to do with properly nurturing children. Prophetic counsel to have family home evenings, family scripture study, and family prayer is not given simply to move the location of religious activities from church meetinghouses to family dwellings. Instead, this counsel is given to encourage fathers to return their hearts to their children.

Temple-based priesthood ordinances indicate that sacred ritual, in sacred places for sacred purposes, can be a powerful aid in turning the hearts of fathers to children (and vice versa). Perhaps this is why Church leaders stress home-based family worship and the performance in the home of sacred functions such as fathers' blessings, dedication of homes, and blessings of healing, comfort, and counsel. Priesthood blessings and ordinances can help seal the heart of a father to his child because they involve the father touching his child and expressing Spirit-guided thoughts and heart-felt feelings.

**Children's Improving Status.** Without question, many troubling societal trends affect children's lives. Neglect, abuse, family dissolution, addiction, poverty, and pornography are only the beginning of social problems that harm increasing numbers of children. Yet the social landscape for children in some ways has improved over the last two centuries. For instance, although studies estimate that 2.5 million children in the United States are abused in some way each year, mostly by their fathers and mothers, some historians argue that abusive treatment of children by parents has declined significantly over the last few centuries. Such practices as killing female infants, swaddling, and wet nursing, common in families until a few centuries ago, are now almost extinct in the West. Furthermore, the nineteenth century evidenced a dramatic increase in societal concerns over nurturing and educating all children.

Of course recent trends, such as drug addiction among young mothers, have tragic consequences for many children, and current notions of what constitutes proper parenting are far from perfect.
But there is little doubt that the West has at least succeeded in diminishing many developmentally brutal practices common and accepted only a few centuries ago.

More evidence that the hearts of the fathers may be returning to their children comes from an increasing condemnation and intolerance of child abuse and neglect, serious sins condemned by the Lord (see Matt. 18:4–6). President Gordon B. Hinckley stated:

I am glad there is a hue and cry going up against the terrible evil [of child abuse], too much of which is found among our own. Fathers, you cannot abuse your little ones without offending God. . . . Any man who beats or in other ways abuses his children will be held accountable before the great judge of us all.41

In addition, significant strides have been made in reducing debilitating and deadly childhood diseases throughout the world and toward educating the young. Unfortunately, the United States lags behind the other industrialized countries of the world in terms of investing in the human resources of the next generation.42 Yet prominent American voices are beginning to call for parents to “move children up the scale of adult priorities”43 and for greater individual and collective “responsibility for the next generation.”44 Additionally, emerging social and political movements in the United States place at the center of their platforms a warning that individual adult rights must be checked by a more prominent sense of responsibility for children.45

Caring for the Environment. Immense changes to the earth and people’s attitudes toward it have been brought about by industrialization and urbanization. As industrialization progressed, industrialized societies began to view the earth as an inexhaustible mine of resources to be removed, processed, used, and discarded as quickly and efficiently as possible. This view renders many nonrenewable resources unavailable to the next generation and leaves the earth scarred, diminished, and unsafe.

However, turning the hearts of the fathers to the children is also evidenced in the emerging recognition of the need to take better care of the natural environment that sustains life on earth. Probably the most tangible inheritance one generation passes on to the next is the condition of the natural environment; the conscious
protection, care, and nurturance of the earth in order to provide one’s children and grandchildren with a safe and pleasant habitation is a further manifestation of generativity. Embedded in such a concern is the principle of stewardship: people are entrusted to care for and “replenish” (Gen. 1:28) the earth for their children and all God’s children. Thus, the hearts of today’s fathers and mothers are turned to the children when they begin to care about what kind of natural environment their descendants will have.

“Cursed” and “utterly wasted” (Mal. 4:6; JS-H 1:39) are accurate descriptions of what the earth will look like if practices of reckless disregard for the natural environment continue. Eastern Europe, where extensive disregard for the environment over the past sixty years has occurred, provides a sobering warning; fortunately, even though financial resources are severely limited, many Eastern Europeans now recognize that economic progress must include cleaning up and preserving the environment.

The 1992 Earth Summit in Brazil, despite its shortcomings, was momentous in its symbolism that the quality of children’s lives depends on the ability of adults to sacrifice some of their current short-term and shortsighted economic policies for policies that will preserve the goodness of the earth. Indeed, in his opening address, United Nations Secretary-General Boutros Boutros-Ghali said, “We are doing this not for us but for future generations, for our grandchildren.”

In Doctrine and Covenants 59, the Lord revealed to the Saints who came to the land of Zion that the “good things of the earth” are included in their inheritance (v. 3), that the “fulness of the earth” is given to “please the eye and gladden the heart” (vv. 16–18), and that, although the things of the earth are given to benefit mankind, they are to be used “with judgment, not to excess, neither by extortion” (v. 20).

President Kimball recommended “to all people that there be no undue pollution, that the land be taken care of and kept clean, productive, and beautiful.” Brigham Young similarly stressed that the proper relationship with the earth grows out of a sense of stewardship; the earth is not the property of man, but of God. President Young emphasized the concept of stewardship—caring for and improving the earth—as a significant duty of the Saints.
Thus, it appears that the Lord expects the Saints to play an active role in assisting him to fulfill the prophecy “that the earth will be renewed and receive its paradisiacal glory” (A of F 10). Heavenly grace in assisting mortal efforts to care for the environment may be directly related to the mission of Elijah.

It seems fitting that Elijah, who exercised priesthood power over the elements, who stopped the Jordan River so that he could walk across on dry ground (2 Kgs. 2:8), who called down fire from heaven (1 Kgs. 18:38), who sealed the heavens for three years so that they refused to give rain (1 Kgs. 17:1, 18:1), and who was fed by ravens during those drought years (1 Kgs. 17:4–6), was among those who restored the keys essential to latter-day work. Although the fullness of the prophecy of Malachi will not be realized until the second coming of Christ, Latter-day Saints should recognize their stewardship in assisting the Lord in this cleansing of the earth. And since the restored gospel involves the “restitution of all things” (Acts 3:21), it seems natural that the Spirit of Elijah would impress upon current fathers and mothers the desire to help restore the earth to the purity and beauty of Eden in preparation for the return of the Creator.

Brigham Young also saw a connection between desecrating our souls with sin and our environment with pollution. “For Brigham, moral and physical cleanliness and pollutions are no more to be separated than mind and body.” Nibley has shown how the scriptures and the prophets often link the building of Zion with the care and nurturing of the earth. The ancient Book of Mormon prophet Moroni saw the last days in vision and said that there would be “great pollutions upon the face of the earth” (Mor. 8:31). The term “pollutions” may refer to both physical and spiritual/moral impurities since the verses preceding this statement refer to physical calamities (for example, fires and vapors of smoke) while the verses immediately after it speak of spiritual corruption.

The link between spiritual and environmental pollution has also been noted by President Ezra Taft Benson:

Again, physical and spiritual laws are interrelated. Pollution of one’s environment and moral impurity both rest on a life-style which partakes of a philosophy of “eat, drink, and be merry” —gouge and grab now, without regard to the consequences. Both violate the spirit of
stewardship for which we will stand accountable. . . . The Church has urged its members to be efficient users of our resources, to avoid waste and pollution, and to clean up their own immediate environment or that over which they have control.55

Disrespect for the earth, President Benson says, comes from a hedonistic philosophy of concern only for the present moment and the pleasures it can yield to the individual. In contrast, when people show concern for the future environment of their children, they yield to a higher law that emphasizes concern for others as well.

Many Latter-day Saint fathers and mothers teach their children by example and precept the principles of personal stewardship for the earth through gardening, food storage, conservation, and recycling.56 Thus, the hearts of the parents are turned to the children in preserving the earth in preparation for the return of the Creator to his creation. This is one of the most concrete ways that the generations work together to avoid the curse spoken of by Malachi.

Conclusion

Malachi’s prophecy refers to the second coming as the “great and terrible day of the Lord.” The last days are also both great and terrible days for fathers and children—a time of great polarization between good and evil. Much of what the media reports are the terrible aspects of economic and emotional neglect of children or the physical, emotional, and sexual abuse perpetrated by destructive parents. But there are also great improvements in the way many fathers treat their children and the children of others. More men are spending substantial time with children, both working with them in the home and assisting them in their various activities. Many fathers have learned more constructive and effective methods of disciplining children that avoid the evils of abuse. And more and more fathers are striving to do less harm to the Lord’s creation to insure future generations of children will enjoy a healthy, abundant life.

We hope to have shown that the prophecy of Malachi has rich meaning in addition to that of genealogical research and temple work in the latter days. The Spirit of Elijah motivates living fathers and mothers to turn their hearts to nurturing the next generation,
rather than "turn[ing] every one to his own way" (Isa. 53:6). The Spirit of Elijah influences fathers to become more involved in the daily care and nurturing of their children and strengthening them through sacred ordinances, blessings, and activities; it encourages society to eliminate child abuse and to promote child rearing in developmentally appropriate ways, and it fosters global concern for the natural environment that generations of children will inherit.

In this article, we have only begun to reflect on the range of rich meanings that may be embedded in the prophecy of Malachi. Those meanings can be a source of great comfort in these challenging times when so much is going in the wrong direction. Part of our fascination with Malachi's prophecy comes from a perception that it is one of the most powerful scriptural prophecies that heralds "glad tidings" in the days preceding the "great and dreadful day of the Lord." While most prophecies of the last days warn of spiritually and temporally destructive forces that will endanger souls and cause men's hearts to fail them (D&C 88:91) or foretell calamitous events (Matt. 24:7, 30), Malachi describes a divine, subtle power in the last days that can influence people to walk in the paths of righteousness. Fathers (and mothers) must walk that path, not alone, but hand-in-hand and heart-to-heart with children.

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NOTES

Turning the Hearts of the Fathers

10 Harris, Theological Wordbook 2:909.
23 Erikson, Life Cycle Completed, 55.


29 Hyrum L. Andrus and Helen Mae Andrus, _They Knew the Prophet_ (Salt Lake City: Bookcraft, 1974), 145.


35 Faust, “Father Come Home,” 35.

36 The First Presidency to General Authorities; Regional Representatives; Stake, Mission, and District Presidents; Bishops; and Branch Presidents, August 1, 1993, Archives Division, Church Historical Department, The Church of Jesus Christ of Latter-day Saints, Salt Lake City.


40 Griswold, _Fatherhood in America_, 11-12.


42 Hewlett, _When the Bough Breaks_, 41-76.

43 Hewlett, _When the Bough Breaks_, 123.

44 Hewlett, _When the Bough Breaks_, 35.


Brigham Young noted,

There is only so much property in the world. There are the elements that belong to this globe, and no more. We do not go to the moon to borrow; neither send to the sun or any of the planets; all our commercial transactions must be confined to this little earth and its wealth cannot be increased or diminished; and though the improvements in the arts of life which have taken place within the memory of many
now living are very wonderful, there is no question that extravagan
cance has more than kept pace with them. (Brigham Young, *Journal
of Discourses*, 26 vols. [Liverpool: F. D. Richards, 1855], 13:304)

47 "Poland's Industrial Showcase Leaves Legacy of Pollution, Deformed Chil


tion. When we make it ugly, we offend him" (Gordon B. Hinckley, quoted by Kristen Rogers, "Stewards of the Earth," *This People* 11 [Spring 1990]: 16).


53 Nibley, "Brigham Young on the Environment," 4. President Young noted, "The soil, the air, the water are all pure and healthy. Do not suffer them to become polluted with wickedness. Strive to preserve the elements from being contaminated by the filthy, wicked conduct and sayings of those who pervert the intelligence God has bestowed upon the human family" (Young, *Journal of Discourses*, 8:79).


Tree of life. The tree of life symbol is very common in both Egyptian and Jewish-Christian culture. It occurs in burial robes from the Egyptian Fayum cemetery with and without birds (as here) to suggest the owner will partake of the fruit of eternal life. Courtesy of BYU Egyptian Archaeological Project.
The Power of the Word: Religion, Family, Friends, and Delinquent Behavior of LDS Youth

Youth who experience spirituality rather than just participate in public religious observances are likely to avoid delinquency—even when they live in a hostile environment or have delinquent friends.

Brent L. Top and Bruce A. Chadwick

Most religious people, including Latter-day Saints, generally assume that the infusion of religious values into young people—through personal experience, church involvement, and religious training—will deter behaviors that society characterizes as delinquent. Theologians and social scientists have taught that the more religious a person is, the less likely she or he will be to participate in delinquent behavior.¹

These traditional assumptions about the power of religion to deter delinquency came under serious challenge in the 1960s by researchers who failed to confirm them. For example, Travis Hirschi and Rodney Stark found that church attenders were "no more likely than non-attenders to accept ethical principles." Importantly, they concluded that church attendance was "unrelated to the commission of delinquent acts."²

Numerous studies in the 1980s further tested the link between religion and delinquency but produced mixed results. Some found that religion was indeed associated with lower rates of delinquency, while others concluded that the relationship was minimal.³ Other researchers discovered that religion seems to deter some types of delinquency more than others. Steven R. Burkett and Mervin White found that religion was more likely to discourage "victimless crimes" such as alcohol and drug abuse and "sexual offenses that involve consent" than offenses against others or against property.⁴

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Stark and his associates argue that the reason for the inconclusive findings is that religion affects deviance only within a religious climate. The *religious ecology* hypothesis maintains that delinquency is not so much deterred by religion, beliefs, or attendance as it is by the prevailing moral climate of the community. Thus the impact of religiosity on delinquency is reduced from a spiritual phenomenon to a social one. Stark and others contend that religion's significant negative relationship to delinquency of LDS youth reported by researchers was due to the cohesive LDS communities (Southern California, Southeastern Idaho, and Central Utah) from which the samples were drawn. Expanding this notion, other researchers sought to minimize the role of religion by advocating the hypothesis that it influences adolescent behavior only if the youth comes from a religious home and has religious friends. They argue that any effects of religion on behavior are largely moderated through parents and peers. These and many other studies have relegated religiosity to only a minor role with little importance in understanding delinquency.

The teachings of The Church of Jesus Christ of Latter-day Saints, however, emphasize that religion has a power of its own—indepen-dent of prevailing social values and norms—to positively affect human behavior. The Book of Mormon prophet Alma believed in the transforming power of religion in the lives of his people: "And now, as the preaching of the word had a great tendency to lead the people to do that which was just—yea, it had had more powerful effect upon the minds of the people than the sword, or anything else, which had happened unto them" (Alma 31:5).

In more recent times, Church leaders also teach that religion, when understood and accepted by its members, "changes attitudes and behavior. The study of the doctrines of the gospel will improve behavior quicker than a study of behavior will improve behavior." The belief that religion does indeed promote righteous living, and in turn deters deviant activity, underlies the Church's efforts in perfect-ing the Saints. Church efforts to strengthen families and young people against societal ills are usually conducted in the context of increased religiosity and gospel living. The link between religiosity and moral behavior is explicit. Elder James E. Faust has taught:
Generally, those children who make the decision and have the resolve to abstain from drugs, alcohol, and illicit sex are those who have adopted and internalized the strong values of their homes as lived by their parents. In times of difficult decisions they are most likely to follow the [religious] teachings of their parents rather than the example of their peers or the sophistries of the media which glamorize alcohol consumption, illicit sex, infidelity, dishonesty, and other vices.

What seems to help cement parental teachings and values in place in children’s lives is a firm belief in Deity. When this belief becomes part of their very souls, they have inner strength.

As seen in this statement, religiosity as viewed by Latter-day Saints includes a personal internalization of the religious experience in addition to outward religious behaviors such as church attendance.

In this study, we sought to empirically test what most Latter-day Saints take for granted. We combined our understanding of the power of religion, as articulated by both ancient and modern prophets, with our tools of social-scientific research to achieve two objectives.

The first objective was to test the religious ecology hypothesis that a supportive religious environment is a necessary condition in order for religiosity to be related to lower occurrences of delinquency among LDS youth. To reach this objective, we collected information from LDS adolescents living along the east coast of the United States, a non-LDS environment where LDS high-school students comprise 1 percent or less of the high-school population.

The second objective was to test the strength of religiosity’s relationship to delinquency in comparison to the influence of friends and selected family characteristics. To accomplish this objective, we tested the model presented in figure 1.

Most previous studies testing the relationship between religion and delinquency have used single measures of religiosity such as claimed affiliation or attendance at church meetings. Recent research confirms that religiosity is comprised of several different dimensions. To provide a more adequate test of the relationship between religion and deviant behavior, we included in this study several measures of religiosity: religious beliefs, private religious behaviors, public religious behaviors, family religious practices, personal spiritual experiences, and feelings of integration into a branch or ward.
Figure 1
Religiosity, Family Characteristics, and Peer Relations Predicting Delinquency

Religiosity
- Beliefs
- Private behavior
- Attendance/Public behavior
- Family behavior
- Spiritual experiences
- Social integration

Peer Relations
- Friends' delinquency
- Friends' pressure
- Friends' deterrence

Family Relations
- Closeness to mother
- Closeness to father
- Parents' deterrence
- Family size
- Family structure\(^1\)
- Parents' marital happiness
- Social class
- Maternal employment

\(^1\)Family structure was coded as a dummy variable; 1 = two parent family and 0 = all others.
Methodology

Data Collection. In the spring of 1990, we conducted a mailed survey of 2,143 Latter-day Saint teenagers between the ages of fourteen and eighteen. The teenagers resided in Delaware, New York, North Carolina, Virginia, Maryland, Washington, D.C., Pennsylvania, and West Virginia. These young people were enrolled in LDS Seminary—either daily early morning classes or a weekly home study class. Sampling from seminary enrollment provided a broad cross section of LDS youth. The sampling frame included nearly all ninth-through twelfth-grade LDS youth in the area. In this geographical area, 90–95 percent of the LDS teenagers were enrolled in seminary classes. Also enrolled in the seminary classes were some LDS youth who rarely attended church.

A packet was sent to the youths’ parents with a letter explaining the study and asking permission for their teenager to participate. Parents were informed of the objectives of the study and that the questionnaire asked about sensitive issues, including drug use and premarital sexual activity. If parents did not want their teenager to participate in the study, they were instructed to return their mailing label with the assurance that they would receive no further follow-up mailings. We did not receive a single refusal. The letter stressed to the parents that in order to collect meaningful data, they needed to allow their children to respond to the questionnaire in complete privacy. A business reply envelope was enclosed so the youth could confidentially return the completed questionnaire.

A postcard reminder was mailed approximately three weeks later. One month after this reminder, a new packet—including a letter, questionnaire, and reply envelope—was sent to those who had not returned their questionnaire. A month later, a final request was sent to those who had not yet completed the survey. These procedures resulted in 1,398 completed questionnaires—a response rate of 70 percent. This is a rather high response rate for a mail survey, particularly one involving such sensitive issues.

Measurement of Variables. Delinquent behavior was measured by forty-four items that asked whether the respondent had ever engaged in specific activities and if so, how often he or she had ever done each. Sixteen questions focused on drug and alcohol use and
premarital sexual activity. These constituted the victimless offense scale. An eleven-item scale gauged property offenses such as shoplifting, theft, and vandalism. Measurement of victim offenses, such as attacks on parents, school officials, and other teens, was done with a sixteen-item scale.

As mentioned earlier, we included five dimensions of religiosity in the questionnaire. Religious beliefs were measured by twelve questions that examined traditional Christian beliefs as well as unique LDS doctrines. Five items assessed private religious behavior by asking about the frequency of personal prayer, private scripture reading, and fasting. Attendance at various church meetings assessed public religious behavior. Three items which asked about the frequency of family prayer, scripture study, home evening, and other family religious activities determined the level of family religious behavior. Three additional items that asked how well the respondents felt they fit into their ward or branch and were accepted by fellow church members determined feelings of religious integration.

Four dimensions of peer influence were also examined. First, friends' delinquency was determined by the respondents' perceptions of the proportion of their friends' involvement in the forty-four negative behaviors listed on the delinquency scale. Friends' pressure was measured by the frequency that friends "have tried to get" the respondent to participate in those behaviors. Friends' disapproval focused on the respondents' perceptions of how their friends feel about seven delinquent behaviors: lying or cheating, fighting, stealing, vandalism, premarital sex, drug use, and/or use of alcoholic beverages. Finally, friends' deterrence was assessed by whether friends' influence was a significant reason why the respondent refrained from the seven delinquent behaviors.

Family structure, number of siblings, maternal employment, and perceived happiness of parents' marriage were measured by a single question each. Closeness to father and closeness to mother were gauged by four-item scales probing the parent-child relationship. A scale for parental disapproval of delinquency asked the young respondents how they thought their parents would feel if the respondents engaged in the seven delinquent behaviors mentioned above. The parental deterrence scale contained questions asking the respondents if they regularly engaged in any of those
seven behaviors and if not, whether parental disapproval was a significant reason.

The gender of the respondents was used as a control variable. All of the items were submitted to factor analysis, which indicated that the items combined to produce strong unidimensional scales. Before testing the model presented in figure 1, we examined the correlations between the various independent variables to identify any multicollinearity problems. As a result, peer and parental disapproval were removed from the model because of high correlations with peer and parental deterrence.

Findings

Characteristics of Sample. Girls comprised 54 percent of the sample and boys 46 percent. This difference was largely accounted for by the girls' somewhat higher response rate (75 versus 62 percent). The young people in the sample were fairly evenly distributed between ninth and twelfth grades. The sample was predominately white, as Asians, African Americans, and Hispanics totaled only 5 percent. The sample is clearly upper-middle class as 36 percent of the teenagers' fathers had college degrees and another 29 percent held advanced degrees. Of the mothers, 33 percent were college graduates and 8 percent had postgraduate degrees. The fathers worked primarily in "white-collar occupations"; 56 percent held managerial positions, 14 percent were in clerical occupations, and 5 percent were professionals. Only 13 percent of the fathers had "blue-collar" occupations.

Frequency of Delinquent Behaviors. The percentages of the LDS young women and men who had ever engaged in each of the various delinquent behaviors and the average number of times they had done so are presented in table 1. Among offenses against others, one labeled "pick on other kids, make fun of them, or call them names" was the most frequently cited misbehavior, followed by creating disturbances at school. Boys were more likely to be involved in offenses against others than were girls. An encouraging finding, however, in this day of increased adolescent violence and crimes against others, is that LDS youth overwhelmingly avoided such conduct.
### Table 1
Frequency of Delinquent Activities Ever Done

<table>
<thead>
<tr>
<th>Items</th>
<th>Males N = 636</th>
<th>Females N = 754</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
<td>Frequency</td>
</tr>
<tr>
<td></td>
<td>Frequency</td>
<td></td>
</tr>
<tr>
<td><strong>Offenses against Others</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cursed or swore at parent</td>
<td>19%</td>
<td>21%</td>
</tr>
<tr>
<td>Pushed, shoved, or hit parent</td>
<td>10</td>
<td>6</td>
</tr>
<tr>
<td>Openly defied church teacher/leader</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>Openly defied schoolteacher/official</td>
<td>36</td>
<td>11</td>
</tr>
<tr>
<td>Created a disturbance by being loud, unruly, or disorderly at school</td>
<td>48</td>
<td>14</td>
</tr>
<tr>
<td>or in some other public place</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Been suspended or expelled from school</td>
<td>20</td>
<td>4</td>
</tr>
<tr>
<td>Forced or pressured someone to engage in sexual activities with you</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>Threw things (rocks, bottles, eggs, garbage, etc.) at cars, people,</td>
<td>41</td>
<td>9</td>
</tr>
<tr>
<td>or buildings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Called someone on the telephone to threaten or bother them</td>
<td>21</td>
<td>7</td>
</tr>
<tr>
<td>Purposely picked on other kids, made fun of them, or called their</td>
<td>52</td>
<td>21</td>
</tr>
<tr>
<td>names</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Picked a fight with other kids</td>
<td>25</td>
<td>8</td>
</tr>
<tr>
<td>Physically beat up other kids</td>
<td>25</td>
<td>7</td>
</tr>
<tr>
<td>Took money or other things from someone by using force or threats</td>
<td>2</td>
<td>6</td>
</tr>
<tr>
<td>Hurt someone badly enough that they had to go to a doctor</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Threatened or attacked someone with a knife, gun, or other weapon</td>
<td>6</td>
<td>6</td>
</tr>
<tr>
<td>Been in a gang fight</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td><strong>Offenses against Property</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Took something from a store without paying for it</td>
<td>33%</td>
<td>20%</td>
</tr>
<tr>
<td>Stole something from someone else's locker, desk, purse, etc.</td>
<td>12</td>
<td>8</td>
</tr>
<tr>
<td>Stole anything more than $50</td>
<td>6</td>
<td>5</td>
</tr>
<tr>
<td>Stole anything worth between $5 and $50</td>
<td>18</td>
<td>7</td>
</tr>
<tr>
<td>Stole anything less than $5</td>
<td>37</td>
<td>9</td>
</tr>
<tr>
<td>Took a car or other motor vehicle without the owner's permission</td>
<td>8</td>
<td>5</td>
</tr>
<tr>
<td>Broke into a building, car, house, etc.</td>
<td>15</td>
<td>4</td>
</tr>
<tr>
<td>Went onto someone's property without permission</td>
<td>53</td>
<td>11</td>
</tr>
<tr>
<td>Purposely ruined or damaged someone else's property or possessions</td>
<td>26</td>
<td>9</td>
</tr>
<tr>
<td>Purposely damaged or destroyed things at school, store, etc.</td>
<td>17</td>
<td>11</td>
</tr>
<tr>
<td><strong>Victimless Offenses</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Smoked cigarettes</td>
<td>24%</td>
<td>24%</td>
</tr>
<tr>
<td>Used &quot;smokeless&quot; or chewing tobacco</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Drank alcoholic beverages (beer, wine, liquor)</td>
<td>24</td>
<td>2</td>
</tr>
<tr>
<td>Used marijuana (&quot;grass,&quot; &quot;pot&quot;)</td>
<td>7</td>
<td>2</td>
</tr>
<tr>
<td>Used cocaine (&quot;crack,&quot; &quot;coke&quot;)</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Used other drugs (heroin, LSD, amphetamines, etc.)</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Been drunk or high on drugs</td>
<td>12</td>
<td>2</td>
</tr>
<tr>
<td>Run away from home</td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Skipped school without a legitimate excuse</td>
<td>44</td>
<td>9</td>
</tr>
<tr>
<td>Cheated on a test</td>
<td>70</td>
<td>13</td>
</tr>
<tr>
<td>Read sexually explicit or pornographic books or magazines</td>
<td>46</td>
<td>8</td>
</tr>
<tr>
<td>Watched sexually explicit or pornographic movies, videos, or TV</td>
<td>42</td>
<td>8</td>
</tr>
<tr>
<td>programs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Been involved in heavy petting</td>
<td>29</td>
<td>9</td>
</tr>
<tr>
<td>Had sexual intercourse</td>
<td>7</td>
<td>11</td>
</tr>
</tbody>
</table>
Trespassing was the most commonly cited offense against property, followed by petty theft and shoplifting. Again, more boys than girls had engaged in the various property offenses.

Cheating on tests at school was the most often cited victimless offense, with over 70 percent of both girls and boys reporting that they had been dishonest in their school work. Over 40 percent of respondents had also “sluffed school.” More young men than young women had read or watched pornographic materials. Surprisingly, however, more young women had been involved in heavy petting and sexual intercourse than the boys. Senior girls were the most sexually experienced group as 22 percent reported they had voluntarily participated in intercourse. This finding was unexpected since nearly all previous research has reported that boys are more sexually active than girls.

It may at first seem alarming that approximately 30 percent of the young people in the sample had been involved in heavy petting and that approximately 10 percent had engaged in sexual intercourse. These findings, however, reflect a significantly lower involvement in premarital sexual activities than is reported in recent national studies of young people in general. There was little evidence of alcohol and/or drug use among LDS youth. Although the study found that approximately one-fourth of the young people had drunk alcoholic beverages, the infrequency of this behavior indicates it was an experiment rather than an on-going practice.

Religiosity of Sample. There was a remarkably high level of religiosity among the sample. Over 80 percent of the boys and nearly 90 percent of the girls believe strongly in the reality of God and the divinity of Jesus Christ. With regards to uniquely LDS religious beliefs, three-fourths of the youth reported that they felt strongly that the Book of Mormon was the word of God and that the President of the LDS Church is indeed a prophet. Over 60 percent of the young men reported they planned to serve full-time missions for the Church and approximately 75 percent of the entire group reported they planned to marry in the temple and be active in the Church. Only a few of these young people reported that religion was not important to them, and less than 10 percent reported that the Church was “too restrictive” or that some teachings of the Church were hard for them to accept.
Despite these high levels of religious belief, the levels of personal religious experience were somewhat moderated. This finding seems logical due to the relative youth of the sample. Only slightly more than a third of the boys and 43 percent of the girls reported that they had “really tried to live the standards of the church” during the past year. Similarly, only 36 percent of the boys and 41 percent of the girls felt that they had “strong” testimonies of the Gospel, while half stated that they had indeed felt the Holy Ghost in their lives. Although the levels of religious experience are lower than those of professed beliefs, these teenagers were undoubtedly more religious in both beliefs and personal experience than their non-LDS peers. The high religiosity of these young people in a “hostile” religious environment is an important element in testing the religious ecology theory.

**Perceived Frequency of Peer Delinquency.** Respondents were asked how many of their friends had engaged in the 44 delinquent behaviors. They reported whether “all,” “most,” “some,” or “none” of their friends had participated in these activities. Table 2 presents only the percent of LDS youth who thought “all” or “most” of their friends had engaged in the delinquent activities. The sample of young people perceived that their friends were much more involved in delinquent behavior than the LDS youth were themselves. However, the survey obtained only the respondents’ perception of their friends’ behavior. Nevertheless, even though this perception may not reflect the actual conduct of the peer group, it is important to the religious ecology theory. According to this theory, if young people think their friends are involved in delinquent behavior, they will feel pressure to engage in similar behavior in order to be like their friends.

**The Religious Ecology Hypothesis.** In a 1976 study of religiosity and delinquency among LDS youth living in a highly religious ecology, respondents were asked about the frequency of ten delinquent activities: cigarette smoking, beer drinking, hard liquor drinking, marijuana smoking, use of LSD or other similar drugs, petting, premarital sexual intercourse, stealing, shoplifting, and fighting. These responses were combined into a measure of total delinquency, the first seven for **victimless** delinquency and the
last three for *victim* delinquency. Religious behavior was measured by the frequency of attendance at Sacrament and other meetings and the frequency of personal prayer. Religious beliefs were gauged by belief in the existence of God, Jesus Christ, and the Devil and by the acceptance of the Bible as the word of God.

The current study of youth in a low religious ecology asked the same information with minor variances in wording and in response categories. The bivariate correlations between the several measures of religiosity and delinquency for both the highly religious ecology (1976 study) and the low-religious ecology (1991 study) are presented in table 3. Correlations obtained in the two different environments are very similar. Eight of the twelve correlations in the highly religious environment achieved statistical significance, whereas all twelve did so in the low-religious environment, where LDS youth are the minority and where their peers are not only less religious, but also more delinquent. Correlations between religion and delinquency among youth living in a "hostile" low-religious ecology are as strong, if not stronger, than those among the young people living in a more predominantly LDS environment. These findings refute the hypothesis that the only way religion deters delinquency is through a religious environment.

Previous research has suggested that religion has a stronger relationship to victimless activities such as underaged drinking, drug
Table 3
Correlations between Measures of Religiosity and Self-Reported
Delinquency in High and Low Religious Ecologies

<table>
<thead>
<tr>
<th>Type of Delinquency and Ecology</th>
<th>Total</th>
<th>Victim</th>
<th>Victimless</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>High E(^1)</td>
<td>Low E(^2)</td>
<td>High E</td>
</tr>
<tr>
<td>Religiosity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Boys</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes</td>
<td>-.26**</td>
<td>-.25**</td>
<td>-.08</td>
</tr>
<tr>
<td>Behavior</td>
<td>-.34**</td>
<td>-.31**</td>
<td>-.08</td>
</tr>
<tr>
<td><strong>Girls</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Attitudes</td>
<td>-.14</td>
<td>-.24**</td>
<td>-.16*</td>
</tr>
<tr>
<td>Behaviors</td>
<td>-.43**</td>
<td>-.38**</td>
<td>-.26**</td>
</tr>
</tbody>
</table>

* Significant at .001 level.
** Significant at .01 level.
\(^1\)High-LDS religious ecology: Southern California, Central Utah, and Southern Idaho.

* Differences between the two correlations are significant at .05 level.

use, and premarital sex than to other types of delinquent activities.\(^{12}\) Although this relationship was true for boys in the 1976 study, the overall differences in the correlations between religion and the two types of delinquency are so small as to be negligible.

The lack of support for the religious ecology hypothesis is consistent with a recent study of adult Catholics' criminal behavior.\(^{13}\) Apparently, LDS youth who have internalized religious values and beliefs engage in delinquent activities less often than those LDS youth who have not. These findings indicate that if we are to fully understand the relationship of religion to delinquency, we must not merely examine social or environmental dimensions, but must also consider personal religious experience as an important deterrent to delinquency.

**The Peer, Family, and Religion Model of Delinquency.** To test the hypothesis that religion in competition with peer and family factors would make a significant, unique contribution to predicting delinquency, we tested the model presented in figure 1. Our intent
was not to develop a comprehensive model of delinquency, but rather to assess the relative strength of the peer, family, and religious factors in predicting it.

One way we tested the model was by utilizing a statistical procedure known as step-wise multiple regression analysis, which allows the independent variables to compete with each other in order to enter the regression equation. The independent variable containing the highest correlation with delinquency when the factors already in the equation are controlled is added to the equation in each step. This step-wise approach provides us with information about the relative strength of each of the factors. The results of the step-wise multiple regression analysis are presented in table 4.

As illustrated, the first two factors to emerge as significant in predicting boys' overall delinquent behavior were the pressure their friends put on them to participate in such activities and their perceptions of their friends' level of delinquency. The greater the pressure from friends and the more delinquent those friends are, the greater the respondents' delinquency. Such findings validate other studies that have demonstrated the power of peer pressure.

The relative strength of religious variables in predicting delinquency is also impressive. Private religious behavior and feelings of religious integration made significant contributions to predicting overall delinquent behavior of boys. The more frequent the private religious behavior, such as scripture reading, personal prayers, and fasting, the lower the level of delinquency. Similarly, the more these boys felt accepted and integrated into their ward, classes, and quorum, the less likely they were to participate in delinquent behaviors. For delinquency in general, two other factors appeared as significant predictors: friends' deterrence of delinquency and the socioeconomic status of the family.

These six factors accounted for 24 percent of the variance in total delinquency reported by the boys in the sample. Similar findings appeared for offenses against others, property offenses, and victimless offenses.

Peer influence, religion, and family characteristics also emerged as the significant predictors of delinquency among the girls. Friends' pressure and friends' delinquency were the most significant factors, followed by personal spiritual experience, friends' deterrence, and
### Table 4
Multiple Regression of Peer, Family, and Religiosity Predicting Delinquent Activity

<table>
<thead>
<tr>
<th>Sex</th>
<th>Factor</th>
<th>All Offenses</th>
<th>Against Others</th>
<th>Property Offenses</th>
<th>Victimless Offenses</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Beta</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Boys</td>
<td>Friends' pressure</td>
<td>.386*</td>
<td>.402*</td>
<td>.357*</td>
<td>.290*</td>
</tr>
<tr>
<td></td>
<td>Friends' delinquency</td>
<td>.331*</td>
<td>.364*</td>
<td>.089**</td>
<td>.264*</td>
</tr>
<tr>
<td></td>
<td>Friends' deterrence</td>
<td>-.104**</td>
<td>-.074***</td>
<td>-</td>
<td>-.090***</td>
</tr>
<tr>
<td></td>
<td>Private religious behaviors</td>
<td>-.171*</td>
<td>-.216*</td>
<td>-.259*</td>
<td>-.098**</td>
</tr>
<tr>
<td></td>
<td>Church attendance</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.111**</td>
</tr>
<tr>
<td></td>
<td>Religious beliefs</td>
<td>-</td>
<td>-</td>
<td>.118**</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Religious integration</td>
<td>-.106**</td>
<td>-.099**</td>
<td>-.096***</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Quality of parents' marriage</td>
<td>-</td>
<td>-.071***</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Family size</td>
<td>-</td>
<td>-</td>
<td>-.091**</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Socioeconomic status</td>
<td>-.87***</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

(R²=.240) (R²=.284) (R²=.225) (R²=.134)

|              |                                | Beta         |                |                   |                    |
|              |                                |             |                |                   |                    |
| Girls        | Friends' pressure              | .483*        | .489*          | .320*             | .332*              |
|              | Friends' delinquency           | .342*        | .408*          | .208*             | .304*              |
|              | Friends' deterrence            | -.157*       | -.118*         | -                 | -                  |
|              | Private religious behaviors    | -.097**      | -.106**        | -.157*            | -.140*             |
|              | Spiritual experiences          | -.125*       | -.140*         | -                 | -                  |
|              | Church attendance              | -            | -              | -                 | -.153*             |
|              | Closeness to mother            | -            | -              | .113**            | -.071**            |
|              | Quality of parents' marriage   | -.073**      | -.075***       | -                 | -.068**            |
|              | Parents' deterrence            | -.078***     | -              | -.072***          | -.194*             |
|              | Family structure               | -            | -.081**        | -                 | -.074***           |

(R²=.316) (R²=.382) (R²=.181) (R²=.272)

* Significant at .001 level.
** Significant at .01 level.
*** Significant at .05 level.
private religious behavior. Two family variables also entered the regression equation: perceived happiness of parents' marriage and parental disapproval of delinquency. The happier the parents' marriage was, the lower the level of delinquency. Family factors are slightly more important to predicting delinquent behavior for girls than for boys. The levels of explained variance for all the measures of delinquency were higher for the girls than the boys. Religious factors made very meaningful contributions to predicting girls' delinquency.

Among the various dimensions of religiosity, private religious behavior has the strongest negative relationship to delinquency among LDS youth. It was a significant predictor for all types of delinquency among both girls and boys. Private religious behavior is a strong indicator of the importance of religion in the lives of these young people, as well as an indicator of the internalization of religious beliefs. However, religious beliefs were also a significant factor in predicting offenses against property by boys. In addition, boys who feel accepted in their ward engage in fewer delinquent activities. The results of the multiple regression analyses clearly demonstrate that, contrary to the views of Stark and other social scientists, religious factors are significantly related to delinquency of LDS youth living in a low-religious ecology. While peer factors are somewhat more important, the significance of religion cannot be ignored.

Conclusions and Implications

The Latter-day Saint young people in this study appear to have internalized a set of religious beliefs, values, and practices that are related to less frequent participation in delinquent activities. The relationship of religiosity to delinquency for LDS adolescents is not largely a cultural or social phenomenon. The link was just as apparent (if not more so) in the low-LDS religious climate of the eastern states as it was for the highly LDS religious environment of southern California, southeastern Idaho, and central Utah.

Contrary to considerable previous research, peer influences did not overpower religiosity in explaining delinquent behavior of LDS youth. In fact, religion made a significant contribution to predicting delinquency when competing with peer and family influences for both boys and girls.
Some of the factors that Church members traditionally view as being important to the prevention of delinquency did not emerge as significant in this study. Public religious behaviors such as attendance at various Church meetings and family religious behaviors such as family prayer, home evening, and scripture study were not significantly related to lower delinquency rates among LDS youth. These activities, as important as they are in and of themselves, apparently do not counteract the peer pressures facing LDS youth today.

Parents should recognize that it is important not only to hold home evening, family prayers, and scripture study, but also to seek ways to help their children to internalize religious values by spiritual experiences. When parents hold these family religious activities only to be holding them, the behaviors are not associated with lower delinquency. But if these activities are utilized to help adolescents internalize religious values and to feel religious experiences, they are significantly less likely to be involved in delinquent activities.

In a similar vein, it appears that local Church leaders, advisors, and teachers can best insulate LDS youth from immorality, drug/alcohol abuse, and other acts of delinquency if there is greater emphasis on activities that promote genuine spiritual experiences—experiences that will help the youth see gospel principles more in practice and less in theory. "You are not merely to teach lessons, or expound doctrines, or set up tools, and prescribe programs," counseled President Spencer W. Kimball. "Your success is not only in setting up ideals but in motivating students to put these ideals into their lives." Just expecting youth to attend Church meetings and activities "to keep them out of trouble" is not a significant delinquency deterrent. However, those activities that promote internalization of Christian principles and religious integration have a positive effect.

Recognizing the power of peer influences, we should seek to guide the youth to those friends who share similar values. We should also recognize, however, that when LDS youth live in a "hostile" religious environment and associate with delinquent peers, religiosity and loving parents can do much to influence them to keep the commandments.
Brent L. Top is Assistant Professor of Church History and Doctrine at Brigham Young University. Bruce A. Chadwick is Professor of Sociology and Director of the Center for the Studies of the Family at Brigham Young University.

NOTES


The items, factor weights, eigen values, and Chronback Alpha coefficients can be found in the more technical paper reporting the results of this research,

11 Albrecht, Chadwick, and Alcorn, "Religiosity and Deviance," 266.


14 Stark, Kent, and Doyle, "Religion and Delinquency," 21-23.

Companion for the Journey

I choose you as I've chosen you before—
a choice that echoes down time's mirrored line,
unbreaking, first and last, like our clasped hands,
as you led me through gossamer in white
to kneel with you outside time, inside love.

For years we have created our time-world,
and peopled it and nurtured it as best
we could; we have learned life
and death and opposition in all things.
And we have learned each other, more or less,
while you remain a mystery to me—
a depth that my own depth might never reach;
a power that is other than my own.

You are the men with sun-caught swords upraised,
the men who huddled fearful in the trench,
who trod the silent trail in dappled light,
who cracked the stones in hope and sowed the seeds,
who touched, desired, slept, prayed, wept, worked, blessed,
who stood tall, silent, through the watchful night,
who saw the stars reflected in the sea.

Father, brother, husband, son, and friend—
you hold the earth and skies within your hands.
Behind your eyes the molten worlds are shaped;
their spring is breathed from chaos-fiery night.
And while we meet mortality's dark blows,
still we can glimpse the light that beacons home.

I choose you yet again, as when I reached
to clasp your hand and thus begin the bond
that seals our timeless, time-encircling love.

—Lisa Bolin Hawkins
Trephinated Skulls. Trephination usually resulted from either surgery or a blow to the head from a weapon such as a sword, knife, or axe. These two skulls are from an early Christian cemetery excavated by the BYU Egyptian Archaeology Team. Top: trephinated skull with cuts and a round hole. Bottom: trephinated skull with some healing of the wound. Courtesy of BYU Eg. Arch. Project.
Neuropathology and the Scriptures

A medical assessment of the slayings of Goliath and Shiz, Christ's sufferings and healings, and other biblical and Book of Mormon events helps to illuminate and confirm these accounts.

M. Gary Hadfield

The scriptures, read as an account of a wide range of human experiences, reflect things of the spirit, body, heart, and mind. As a neuropathologist, I have tried to bring medical insights to bear on passages of scripture that appear to involve disorders or diseases of the brain or of the nervous system. This article explores some of those cases, particularly from a clinical and historical point of view.

People with diseases or injuries of the nervous system have dramatically affected sacred history. Their circumstances provide some of the more important moral teachings and object lessons in the standard works. Some were afflicted with strokes, palsies, dumbness, or blindness, while others suffered from head and neck injuries, epilepsy, or nervous system infections, possibly including leprosy (Hansen's disease). The scriptures also contain interesting descriptions of mental illness, but they will not be treated here.¹

Neuropathology is the medical discipline concerned with diseases of the nervous system. Classically, it deals with organic illnesses and injuries of the brain, spinal cord, peripheral nerves, and skeletal muscle, as observed with the naked eye and the microscope. The scope of neuropathology is currently expanding to include examination of these excitable tissues with sophisticated molecular techniques.²

Accounts of neurological afflictions in the scriptures increase our awareness of age-old, as well as current nervous system disorders, while scientific progress in neuropathology sheds light on certain scriptural passages. Even so, much about the nervous system remains unsolved, and it is sometimes difficult to discern whether

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the ancient and modern diseases are one and the same, and whether both the descriptions and the translations from the Greek and Hebrew texts of the Bible accurately describe the clinical conditions of each case. Further, depictions of nervous system diseases in the scriptures are fragmentary, and the manner in which their causes and significance were understood in biblical times surely differs from our present understanding. Nevertheless, several interesting instances of nervous system diseases in the scriptures can be considered from the vantage point of neuropathology.

The Brain

Many ancient peoples, including biblical writers, seem unclear about the functions of the brain as the seat of higher intellectual, emotional, sensory, and motor activity. While some experimentation advanced their understanding of the functions of the brain, it was sometimes thought that the heart performed these roles. This erroneous conclusion probably derived from the effects of nerves which innervate the heart. In response to intense emotions and feelings, the autonomic nervous system can cause strong internal sensations in the left breast and make the heart speed up or slow down. Scriptural passages associate the heart with the intellect and also with the emotions. For example, one reads, “For as he thinketh in his heart, so is he” (Prov. 23:7), and “Thou shalt love the Lord thy God with all thy heart” (Luke 10:27).

About the time of the Italian Renaissance, investigators began to understand the role of the brain in terms of modern physiologic concepts. Michelangelo, for one, seems to have been well aware of the brain’s relationship to the intellect. It has recently come to light that one of his masterpieces, the famous fresco on the ceiling of the Sistine Chapel which shows God touching the finger of Adam, depicts a shape like the human brain. Dr. Frank L. Meshberger has discovered that the extremities of the figures of Elohim, Eve, and the attending angels are arranged in such a way as to reconstruct perfectly the brain’s major features, as seen from its medial aspect (see figure 1). This neuroanatomical tour de force must have stemmed from Michelangelo’s careful dissection of cadavers. Meshberger concludes that God, in this scene, is not granting Adam life, because
Figure 1. Detail from The Creation of Adam (1508–12) by Michelangelo. Dr. F. L. Meshberger has discovered that this painting is a neuroanatomic reproduction of the human brain as one would see it when the two hemispheres are separated (midline sagittal section, medial view). The perimeter of the scene is that of the brain itself.

Deep within the brain, a major landmark, the cingulate sulcus, curves around God's shoulders and left arm, the angel under his right arm, and Eve's forehead. The structures on the right side, in the vicinity of God's feet, represent the cerebellum. The shape of the angel lying just beneath God (at the base of the brain) is that of the brain stem and spinal cord. The angel's head is the midbrain, the shoulders and back are the pons, the buttocks and thighs are the medulla, and the leg represents the cervical spinal cord.

The drapery at the bottom right is the vertebral artery as it courses through the cervical vertebrae, twists upon itself, and joins the basilar artery which courses along the brainstem. The leg of the adjacent angel, which extends below the robe, is the pituitary stock or hypophysis, and the foot is the pituitary gland itself. Unlike God's feet, which have five toes, the angel's foot is bifid, accounting for the anterior and posterior halves of the pituitary gland. The opposite inferior extremity of this angel is flexed. The thigh, the knee, and the leg represent the optic nerve, chiasm, and tract, respectively. (Frank Lynn Meshberger, “An Interpretation of Michelangelo's Creation of Adam Based on Neuroanatomy,” *Journal of the American Medical Association* 264 [October 10, 1990]: 1837-41.)
Adam is awake and reaching out to God. Rather, it depicts God’s endowing Adam with intelligence.

Latter-day scripture reveals that intelligence, or the core of the individual human being, is coeternal with God and was not created by him (D&C 93:29). But God has designed, constructed, and given a spirit and physical body within and by which this intelligence could develop further. While it is impossible to draw firm conclusions about the material details of our most remote origins, the nature of our primordial intelligence allowed birth as spiritual sons and daughters of God. With the aid of the physical body, including the brain and the five senses, our intelligence can escape prior limitations to increase in knowledge and to control its environment. These bodies give us the potential, with God’s help, to become like him in every meaningful way. To this end, God created the human body to embody the spirits of his children.

The human brain in that body is one of the most powerful organs; it differs from that of lower forms of life in having a very large frontal lobe capable of higher mental functions. Once the “forgetfulness” and “one-track mindedness” of mortality are laid aside, it seems safe to conclude that the brain will evidently become an even more powerful instrument in the resurrected body. “The glory of God is intelligence,” says a revelation (D&C 93:36). In this light, our eternal intelligence may be more pervasive than its elemental relationship to the brain, be it spiritual or physical, although this observation must remain tentative.

**Mental Agony of Jesus in Gethsemane**

The most graphic and most important neuropathological scene portrayed in the scriptures is the one about which we know the least. It concerns the greatest intelligence of all, that of Jesus, whose mental anguish and suffering in the garden of Gethsemane and on the cross is beyond full human comprehension (D&C 19:15–18). The physical or chemical alterations that occur in the brain during such an ordeal remain unknown. However, complex metabolic and neurotransmitter alterations that occur during severe emotional states, including depression, stress, and psychotic episodes, can be depicted by modern imaging techniques and brain scans with radioactive tracers.
In the case of Jesus, his suffering was so intense that, according to Luke 22:44, he bled from every pore. Medically, this condition is called hematidrosis:

It consists of an intense vasodilatation of the subcutaneous capillaries. They become extremely distended, and burst when they come into contact with the millions of sweat glands which are distributed over the whole skin. The blood mingles with the sweat, and it is this mixture which pears over the whole surface of the body.

Though bloody sweat is a very rare phenomenon, it may occur in highly emotional states or in persons with bleeding disorders. Hematidrosis would indicate that Jesus' blood pressure was greatly elevated and that his sweat glands were intensely overactive, as dictated by an autonomic nervous system that was responding maximally to his tortured mental condition and emotional agony in Gethsemane.

Nothing in human experience matches the degree of mental agony suffered by Jesus, yet human psychological suffering may become inordinate. It is well known that extremely depressed patients often undergo such intense mental distress that they even seek self-destruction for relief. Acute situational reactions in response to overwhelming danger may also produce intense fear leading to total disability or causing one to literally “drop dead in his tracks,” particularly if there is an underlying heart condition.

In a related vein, some in this life are permitted a brief taste of Christ’s agony as a warning of future suffering if they do not repent (D&C 19:15, 20), or, in the case of the sons of perdition (D&C 76:31-38), of the fate awaiting them. But this fleeting experience is soon withdrawn. It is sobering to contemplate Christ’s warning to the unrepentant, who “must suffer even as I” (D&C 19:17). By taking upon himself all the suffering for the collective transgressions and pains of the world, Jesus was able to redeem us from the Fall and from our sins, on condition of repentance. This experience permitted him to understand and know our weaknesses perfectly, so that he could succor us (Alma 7:12). His “grace is sufficient for all” (Ether 12:27).

Jesus’ Physical Suffering on the Way to the Cross and during Crucifixion

As a result of bleeding from his pores, Jesus’ skin would have been fragile and tender. The sensitization of nerve endings would
have enhanced the pain both of the blows received at the hands of the Sanhedrin during Jesus’ nighttime trial and of the flagelllation and crown of thorns that he received on the following morning from Caesar’s soldiers.  

The flagellation that Jesus suffered would have laid open his back muscles, mutilated sensitive nerves, and produced hemorrhaging and shock. The pain would have been aggravated as the cross piece, which he bore partway to Golgotha, wore into his lacerated back. The extreme discomfort of his nerve endings would have been abruptly renewed when he was stripped of his clothing and nailed to the cross. His raw back would have continued to rub against this rough shaft for three hours.  

Even this pain may have been somewhat overshadowed by that produced by the nails. The large median nerve, which supplies the hand, runs between the major bones of the forearm and was probably crushed or severed during the nailing of the spike through the wrist. Excruciating bolts of pain would travel up the arms, while the hands would experience cramps. If Jesus’ feet were nailed one foot on top of the other, through the metatarsal region, the deep peroneal nerve and branches of the medial and lateral plantar nerves would be similarly injured. Every breath, indeed each movement on the nails, would cause new flashes of pain.  

Mercifully, this suffering ended when he finally uttered, “It is finished” (John 19:30). Jesus had drunk to its dregs the bitterest of cups that a deified mortal could consume. Yet, the physical suffering of crucifixion, contrived to produce the most excruciating and lingering pain, seems to have been less than the agony that Jesus endured in Gethsemane when he took our sins upon him.  

**Jesus’ Miraculous Healing of Nervous System Diseases**  

The mortal or physical body, including the nervous system, is vulnerable to many diseases and to severe impairment of function. As King Benjamin stated, we are “subject to all manner of infirmities in body and mind” (Mosiah 2:11). Jesus healed many persons with nervous system diseases. Scriptures record, for instance, that “the multitude wondered, when they saw the dumb to speak, the maimed to be whole, the lame to walk, and the blind to see: and they glorified
the God of Israel” (Matt. 15:31). “And they brought unto him all sick people that were taken with divers diseases and torments, and those which were possessed with devils, and those which were lunatick, and those that had the palsy; and he healed them” (Matt. 4:24; cf. 3 Ne. 17:7–9). It seems clear from such accounts that Jesus healed persons with both physical and mental disorders.

Some of Jesus’ most impressive miracles occurred when he healed paralytics. Outstanding examples are of the cripple in Galilee who was let down through the roof on his litter (Mark 2:3–12) and of the halt man afflicted for thirty-eight years who awaited a cure at the pool of Bethesda in Jerusalem (John 5:5–9). When Christ saw them, he took compassion upon each and told them to take up their beds and walk, which they immediately did. Though there may have been other causes for their disabilities, it seems possible that both had sustained damage to their spinal cords which resulted in paraplegia or quadriplegia.

A woman with a bent-over, hunchbacked spine (kyphosis) was healed after eighteen years of paralysis (Luke 13:11–13). Although her back could have been broken or the deformity may have been caused by aging (arthritis), her case fits the description of tuberculosis of the spinal column with compression of the spinal cord (spinal caries and Pott’s paraplegia).

The centurion’s servant who was paralyzed apparently represents a case of acute spinal meningitis,16 because he was “racked with pain” (Matt. 8:5–13 New English Bible [NEB]). Jesus healed him from a distance. The man whose withered arm was healed on the Sabbath day (Mark 3:1–5) may well have contracted polio, resulting in his useless arm. This explanation is more likely than others. Polio is still common today in the Middle East. In this connection, Jesus’ disciples also healed many who were lame, presumably from damage to nerves (Acts 3:1–10; 8:7; 9:33–34; 14:8–10).

**Divine Intervention as a Cause of Paralysis**

Lameness came upon Jacob while wrestling with the angel when he was struck “on that nerve in the hollow of the thigh” (Gen. 32:32 NEB). Trauma to the sciatic nerve could have produced partial weakness in one of Jacob’s legs, inducing a limp (Gen. 32:31).
In a different account, when Jeroboam demanded that God's messenger be seized for prophesying against him, "immediately the hand which [Jeroboam] had pointed at him became paralyzed so that he could not draw it back" (1 Kgs. 13:4, 6 NEB). Though this may have been the result of nerve damage, it could also be caused by a conversion reaction (hysteria), a type of mental paralysis caused when nerve sensation or motor activity is blocked without demonstrable physical changes in the nerve.17 When the prophet subsequently prayed for Jeroboam to be healed, the king was healed.

A similar mechanism may have been responsible in part for Zacharias's inability to speak (psychophonasthenia) when Gabriel announced that his wife, Elizabeth, would bear John (Luke 1:20, 22). Related to this phenomenon may be the temporary "paralysis" of Alma the Younger (Mosiah 27:19; Alma 36:10), and later, of King Lamoni, his queen, Ammon, and the servants of the king (Alma 18:42; 19:13–16), and in a separate incident, of Lamoni's father (Alma 22:18). All were overcome by both the spirit of the Lord and intense fear or joy and as a result fell to the ground (see also Hel. 9:14).

Epilepsy

In Mark 9:17–22, a man said to Jesus, "I have brought unto thee my son which hath a dumb spirit; and wheresoever he taketh him, he teareth him: and he foameth and gnasheth with his teeth, and pineth away." When the child was brought before Jesus, "straightway the spirit tare him: and he fell on the ground, and wallowed foaming." The father told Jesus that this affliction had come on him when he was "a child. And oftentimes it had cast him into the fire, and into the waters, to destroy him."

This picture is virtually identical to that seen in grand mal epilepsy (seizures, convulsions, fits). The seizure focus is often found in a localized region of diseased brain tissue. The underlying cause may be infection, tumor, trauma, hemorrhage, infarction, certain drugs, or a metabolic imbalance. Currently, these disorders are generally well controlled with anticonvulsant agents such as phenytoin, phenobarbital, and newer drugs. Often, surgical resection of diseased brain tissue will remove the convulsive center and cure the condition.
In this biblical account, the apparent epilepsy was attributed to demonic possession, for Jesus said, "Thou dumb and deaf spirit, I charge thee, come out of him, and enter no more into him. And the spirit cried, and rent him sore and came out of him: and he was as one dead. . . . But Jesus took him by the hand, and lifted him up; and he arose" (Mark 9:25-27). According to the scriptures, dumbness, deafness, and blindness, in addition to lunacy and epilepsy, could also result from possession by evil spirits (Matt. 9:32-34; 12:22-32). On the other hand, Jesus healed many blind, deaf, dumb, and insane persons without mentioning or rebuking evil spirits.

**Leprosy**

It is impossible to know whether the leprosy noted in the Bible is the same disease called leprosy (Hansen's disease) today. It was apparently infectious, perhaps syphilitic in nature or due to multiple causes. In this light, it is possible that some of the biblical cases were identical with our modern disease.18

Hansen's disease is caused by a bacterial infection of peripheral nerves. The inflammation produced by the bacillus *M. leprae* thickens and destroys nerve trunks. The loss of sensation leads to damage and disfigurement of the extremities and face. This condition is augmented by a spread of the inflammatory process into adjacent soft tissues and by erosion of underlying bone.19 For millennia, this disease was incurable, but it is now amenable to antibiotics. Over fifteen million people currently suffer from Hansen's disease worldwide.20

Although the Hebrew term *šara'at* is translated as leprosy in English,

*šara'at* is obviously a broad category that included conditions ranging from psoriasis to ringworm, and perhaps even dandruff. And it likely included leprosy. *šara'at* was a generic term for many skin conditions at a time when specific medical diagnosis was very limited and terminology was very general. Most modern diseases are not named in the Bible, not even those that we know existed at the time.21

Jesus healed a single leper on one occasion and sent him to the priest for purification (Matt. 8:2-4; Mark 1:40-44; Luke 5:12-14), and he cleansed ten other lepers at once, only one of whom showed gratitude (Luke 17:12-19). In the Old Testament, several cases of
leprosy are mentioned. In order to demonstrate his power to Moses, the Lord rendered Moses' hand leprous, then forthwith healed it (Exod. 4:6-7). Later, Moses' prayer aided in cleansing his sister Miriam of leprosy (Num. 12:10-15). Naaman, the leper, was cured by following Elisha's priesthood instruction to bathe seven times in the Jordan River (2 Kgs. 5:1-14).

In an important sequel to Naaman's story, Gehazi, Elisha's servant, attempted to collect a "medical" fee from Naaman for this cure. Elisha struck him with leprosy and cursed his descendants with the same condition (2 Kgs. 5:17). Joab and his descendants were also punished with leprosy for his revenge killing of Abner (2 Sam. 3:29). The Lord struck Uzziah, king of Judah, with leprosy when he usurped priestly functions in the temple (2 Kgs. 15:5; 2 Chron. 26:20-21). Four unnamed persons were afflicted with leprosy in 2 Kings 7. Leviticus 13-14 deals in great depth with leprosy, including the skin manifestations that permit a priest to declare the bearer "unclean," the afflicted person's expulsion from the community, and his ritual cleansing when healed. Taken together, these instances show that divine powers can both cause and heal leprosy and like diseases.

Nervous System Trauma

In addition to the peripheral nerve trauma suffered by Christ during his crucifixion, other important cases of trauma to the nervous system are reported in the scriptures, particularly head trauma. Several Bible and Book of Mormon characters met their death through head or neck injury.

For instance, Sisera, an enemy captain, was exhausted after battle and sought refuge in the tent of Jael, a woman loyal to Israel. She "took a tent-peg, picked up a hammer, crept up to him and drove the peg into his skull as he lay sound asleep. His brains oozed out on the ground, his limbs twitched and he died" (Judg. 4:17-22 NEB). The unscrupulous Abimelech, who ascended to the throne of Shechem by killing his seventy half brothers, received a mortal head wound while besieging a city: a woman threw a millstone on his head from a tower and fractured his skull. So that he would not die from his head wound, he called hurriedly to his young armor-bearer and said, "Draw your sword and dispatch me, or men will say of me:
A woman killed him. So the young man ran him through and he died” (Judg. 9:52–54 NEB).

Later, the vile queen Jezebel, a Baal worshipper and killer of prophets, met an ignominious death as foretold by Elijah. She was thrown from a high window (almost certainly sustaining a head injury), spattering her blood; afterward she was trodden underfoot by horses and eaten by dogs (2 Kgs. 9:30–37). Many of the Philistines slain by Samson with the jaw bone of an ass (Judg. 15:15)—and innumerable other victims of Old Testament and Book of Mormon wars—must also have died of lethal head injuries.22

Moreover, in the Old Testament, Eli the priest died suddenly when he fell backwards from his stool at the shocking news that his two sons had been killed and that the Ark of the Covenant had been captured (1 Sam. 4:15–18). Eli broke his neck in the fall, damaging vital centers in his cervical spinal cord.

Another case from the Old Testament concerns Mephibosheth, Jonathan’s son, who was dropped by his nurse when he was five years old; he became permanently lame (2 Sam. 4:4). Because a simple bone fracture should have healed well at this age, he probably suffered spinal cord or brain damage. In his compassion, King David saw to it that this son of his beloved, deceased friend was well cared for throughout life.

In the New Testament, Eutychus suffered a fall from a very high perch but survived. He was seated on a window ledge in the third loft and fell asleep while Paul was preaching a long sermon. He plummeted to the ground and was knocked unconscious. Paul raced downstairs, learned that he was still alive, and embraced him, and Eutychus awoke from his concussion (Acts 20:9–10, 12).

Striking cases of decapitation are described in the scriptures. One famous beheading is that of the Philistine giant Goliath (1 Sam. 17:48–51).

And it came to pass, when the Philistine arose and came and drew nigh to meet David, that David hasted, and ran toward the army to meet the Philistine. And David put his hand in his bag, and took thence a stone, and slang it, and smote the Philistine in his forehead, that the stone sunk into his forehead: and he fell upon his face to the earth. So David prevailed over the Philistine with a sling and with a stone and smote the Philistine, and slew him: but there was no sword in the hand of
David. Therefore David ran, and stood upon the Philistine, and took his sword, and drew it out of the sheath thereof, and slew him, and cut off his head therewith.

This text relates twice that David slew Goliath, once when the stone hit Goliath and again when he cut off Goliath’s head. The fact that this statement was repeated in conjunction with the beheading indicates that David’s sword may have supplied the actual coup de grâce while the stone may have produced a simple concussion that knocked Goliath out.

It is possible, though less likely, that David’s rock caused even more severe damage. Goliath may have sustained a depressed frontal skull fracture and spicules of bone may have lacerated his brain. If he sustained only blunt trauma and not a fracture, there still may have been contusions and subdural and/or subarachnoid hemorrhage over the surface of the brain. But even severe head injuries rarely result in sudden death, though they may ultimately prove fatal.

The Book of Mormon reports two decapitations. Both stories are riveting. The first, concerning Nephi and Laban (1 Ne. 4:7–18), is well known and frequently cited. The second, reporting the apparent decerebrate rigidity of Shiz (Ether 15:31), finds striking verification in medicine:

And it came to pass that when they had all fallen by the sword, save it were Coriantumr and Shiz, behold Shiz had fainted with the loss of blood. And it came to pass that when Coriantumr had leaned upon his sword, that he rested a little, he smote off the head of Shiz. And it came to pass that after he had smitten off the head of Shiz, that Shiz raised upon his hands and fell; and after that he had struggled for breath, he died. And it came to pass that Coriantumr fell to the earth, and became as if he had no life. (Ether 15:29-32)

Though the combatants in this story were well acquainted with wholesale carnage, Shiz’s unique death struggle was so astonishing that his throes were reported in grisly detail. Perhaps Ether and Coriantumr interpreted this astounding incident as a sign of Shiz’s indomitable fighting spirit or refusal to die. However, Shiz’s death struggle illustrates the classic reflex posture that occurs in both humans and animals when the upper brain stem (midbrain/mesencephalon) is disconnected from the brain. The extensor muscles of the arms and legs contract, and this reflex action could cause Shiz to
raise up on his hands.\textsuperscript{24} Of course, Shiz would not have remained long in this position, and he would have bled to death rapidly through the severed arteries that go to the head.\textsuperscript{25}

The brain stem is located inside the base of the skull and is relatively small. It connects the brain proper, or cerebrum, with the spinal cord in the neck. Coriantumr was obviously too exhausted to do a clean job. His stroke evidently strayed a little too high. He must have cut off Shiz's head through the base of the skull, at the level of the midbrain, instead of lower through the cervical spine in the curvature of the neck. It is worth noting that critics have questioned this story in the Book of Mormon. But this extraneous detail provides another solid indication that the Book of Mormon is an accurate record. Significantly, this nervous system phenomenon (decererebrate rigidity) was first reported in 1898, long after the Book of Mormon was published.\textsuperscript{26}

\textbf{Conclusion}

This article has sketched the main clinical characteristics of several cases in the scriptures that involve injury to or disease of the nervous system. These cases invite students of the scriptures to consider the physiology of the brain, the physical effects of intense suffering, and the conditions of paralysis, leprosy, and nervous system trauma. Although the scriptures give only limited information about most of these cases, making it impossible to diagnose them completely, enough information is provided that their symptoms can be reasonably described and assessed. Such analysis leads to a clearer understanding of the physical realities of the actual, often miraculous, events reported in these scriptural records, which in turn helps modern readers to appreciate more deeply the spiritual significance of these sacred writings.

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NOTES

1 Hopefully, scientists will someday understand these disorders anatomically. New, sophisticated techniques are being employed to study these conditions. See, for example, W. A. Wegener and A. A. Alavi, “Positron Emission Tomography in the Investigation of Neuropsychiatric Disorders: Update and Comparison with Magnetic Resonance Imaging and Computerized Tomography,” International Journal of Radiation Applications and Instrumentation 18 (1991): 569–82; evidently, both King Nebuchadnezzar (Dan. 4:30–34, 36) and King Saul (1 Sam. 16: 14–23; 18:10–12) suffered from insanity.


7 Wegener and Alavi, “Positron Emission,” 569–82.


9 Pierre Barbet, A Doctor at Calvary: The Passion of Our Lord Jesus Christ as Described by a Surgeon, trans. Earl of Wicklow (Garden City, N.Y.: Doubleday Image, 1953), 213; and Sutton, Diseases, 1393.

Hemathidrosis [sic] (Bloody Sweat) is an extremely rare disorder characterized by excretion of blood or blood pigment through the coil [sweat] glands. When it does occur, it is usually a manifestation of purpura. The majority of the reported examples have occurred in
the newborn and in highly emotional or hysterical subjects. The disorder may involve limited areas on the face, ears, umbilicus or limbs, and the discharge may be preceded or accompanied by pain of a neuralgic character.

12See “Atonement” and “Grace,” in Encyclopedia of Mormonism.
14On the scourging, see Matthew 27:26; Mark 15:15; and John 19:1. Matthew 27:29 and Mark 15:17 mention the crown of thorns. See also note 13.
15See references cited in “Gethsemane,” in Encyclopedia of Mormonism.
16Thomsen, The Bible Book of Medical Wisdom, 116.
19Adams and Duchen, Greenfield's Neuropathology, 1557.
21Barbet, A Doctor at Calvary, 213.
22The Nephites seem to have been the first in their society to cover their heads with “shields” or “head-plates” for protection (Alma 43:19–21, 38); at times, even those who wore them suffered serious, even fatal, head injuries (Alma 43:44).


25 In a surviving person who suffers such a massive infarct (an area of necrosis in a tissue resulting from obstruction of the local circulation), hemorrhage, tumor, or traumatic section involving the upper brain stem, the arms and legs remain permanently outstretched, rigid, and fixed. In many patients, it is the sparing of vital respiratory and blood pressure centers in the central (pons) and lower (medulla) brain stem that permits survival. Such patients remain in a vegetative state because the brain has been effectively cut off from the body. For the brain, see Adams and Duchen, *Greenfield's Neuropathology*, 195-200.

Midori’s Eyes

And be [Morianton] did do justice unto the people, but not unto himself because of his many whoredoms. . . .

And it came to pass that Morianton built up many cities, and the people became exceedingly rich under his reign, both in buildings, and in gold and silver, and in raising grain, and in flocks, and herds. . . .

And Morianton did live to an exceedingly great age . . .

Ether 10:11–13

It is an evening for old men such as I—
Warm and languorous, scented with blossoms.
The waning sunlight is adrift with gold
And perfumed oils linger on my skin.
Birds of stunning colors float unrestrained upon the breezes
Like drifting ornaments of ease.

It is an evening rich with memories and longing
For I have been a warrior, and a king and builder,
A lover of the people
And Midori’s eyes.

From this wide porch above the city
I see the rising grain in white fields of abundance,
The flocks and herds grow fat upon the pleasant hills.
The fading sun illuminates the gold and silver
We have placed upon our buildings to delight the eyes.
There is dance and music for the heart,
And the sweet, alluring memory of fair Midori.

It was her touch and beckoning
That drew me first toward illicit burnings
Those who followed were beguiling shadows
Fading in the still unequaled and consuming fire of Midori’s eyes.

Yet, perhaps it is the memory of her eyes,
That brings a shadow of uneasiness
So intertwined with flickerings of my approaching death.

—Randall L. Hall
A revelation of Joseph the Seer 300th
on the 6th Matthew 10 Verse

He shall and be a voice as one sent down from heaven who is mighty and powerful whose going forth is unto the ends of the earth, yea whose voice is unto all men prepare ye the way of the Lord make his paths straight. The keys of the kingdom of God is committed unto man on the earth, and from thence shall the Gospel roll forth unto the ends of the earth, as the stone which is hewn from the mountain without hands shall roll forth until it hath filled the whole earth. Ye a voice crying prepare ye the way of the Lord prepare ye the sacrifice of the Lord. Prepare ye for the coming of the Redeemer. 

May unto the Lord calls upon his people known by his wonderful works upon the people. Call upon the Lord that his kingdom may go forth upon the earth that his inhabitants thereof may receive it and be prepared for the day to come in the sight of man that shall come down from heaven clothed in the brightness of his glory to meet the kingdom of Christ that is set up on the earth. Wherefore unto the kingdom of God go forth that the kingdom of heaven may come. That those be glorified in heaven so also earth. His coming may be declared to the honor of power and glory for ever Amen.}

McLellin's copy of Doctrine and Covenants 65. Courtesy of the Archives Division, Church Historical Department, The Church of Jesus Christ of Latter-day Saints, Salt Lake City.
The Document Corner:
The Newly Found Manuscript of Doctrine and Covenants Section 65

McLellin's early copy of Section 65 significantly links it with the words in the Lord's Prayer "Thy kingdom come."

John W. Welch and Trevor Packer

Among the papers of William E. McLellin recently discovered in the Church archives are handwritten copies of four revelations long included in the Doctrine and Covenants as sections 22, 45, 65, and 66. These texts, along with McLellin's six journals ranging from July 18, 1831, to June 6, 1836, will be published by BYU Studies in the near future in a supplementary volume. This note features Section 65.

As a new convert, McLellin arrived in Kirtland, Ohio, in October 1831. There he copied by hand several of the revelations received by the Prophet Joseph Smith. Making such copies for use in study, preaching, and missionary work was a common practice among the early members of the Church before the Book of Commandments (1833) and the Doctrine and Covenants (1835) were printed.

The text of the McLellin manuscript of Section 65 follows:

A revelation of Joseph the Seer 30 Oct. 1831
on the 6th Matthew 10 verse—

Herken and lo a voice as one sent down from Heaven on high who is mighty and powerful[1] whose going forth is unto the ends of the earth yea whose voice is unto all men prepare ye the way of the Lord make his paths strait. The keys of the kingdom of God is committed unto man on the earth and from thence shall the gospel roll forth unto the ends of the earth, as the stone which is hewn from the mountain without hands shall roll forth until it hath filled the whole earth. Yea a voice crying prepare ye the way of the Lord prepare ye the supper of the Lamb Make ready for the coming of the bridegroom Pray unto the Lord. Call upon his holy name Make known his wonderful works among the

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people. Call upon the Lord that his kingdom may go forth upon the earth that the inhabitants thereof may receive it and be prepared for the days to come in the which the son of man shall come down in Heaven Clothed in the brightness of his glory to meet the kingdom of God which is set up on the earth. Wherefore may the kingdom of God go forth that the kingdom of heaven may come, that thou O God may be glorified in heaven so on earth that thine enemies may be subdued for thine is the honor, power and glory for ever and ever Amen. Jos! Smith Revelator

The most interesting detail about this document stands in its heading. The 1981 edition of the Doctrine and Covenants identifies Section 65 as a “revelation given through Joseph Smith the Prophet, at Hiram, Ohio, October 1831,” and notes, “The Prophet designates this revelation as a prayer.” The McLellin manuscript, however, gives two further details. First, it gives the exact date: “A revelation of Joseph the Seer 30 Oct. 1831,” and second, it specifies that this revelation is “on the 6th Matthew 10 verse.” This information allows us to recognize, for the first time, that Section 65 is not simply an ordinary or spontaneous prayer, but is deeply related to the Lord’s Prayer, especially Matthew 6:10, “Thy kingdom come. Thy will be done in earth, as it is in heaven.”

This insight provides readers with a valuable key to unlock and appreciate the meaning of this revelation. Several words in Section 65 are, in fact, related to phrases in the Lord’s Prayer. Following the introductory verses which invoke texts from Isaiah 40:3, Daniel 2:45, Matthew 3:3 and 22:2, and Revelation 19:9, the revelation focuses on Matthew 6:9-13. The revelation exhorts all people to “pray unto the Lord, call upon his holy name” (65:4); this acknowledgement of the holiness of God’s name compares with the initial instruction of the Lord’s Prayer, “after this manner pray ye: Our Father which art in heaven, Hallowed be thy name” (Matt. 6:9). The revelation then pleads, “May the kingdom of God go forth, that the kingdom of heaven may come, that thou, O God, mayest be glorified in heaven so on earth” (65:6), which echoes the main text mentioned in the McLellin heading (Matt. 6:10). Much as the revelation expresses the hope “that thine enemies may be subdued” (65:6), the Lord’s Prayer also prays for deliverance “from evil” (Matt. 6:13). Finally, Section 65 and the Lord’s Prayer both conclude with similar doxologies: “for thine is the honor, power and glory, forever and
ever. Amen” (65:6) and “for thine is the kingdom, and the power, and the glory, for ever. Amen” (Matt. 6:13). Identifying these relationships between the Lord’s Prayer and Section 65 imbues both of these scriptures with new meanings relevant to the present dispensation of the gospel of Jesus Christ.

While Section 65 is clearly related to the Lord’s Prayer, it is also a separate text. It is neither a commentary on the Lord’s Prayer nor a new translation of it. Furthermore, it does not appear that this section, like so many others from this time period, was prompted by the Prophet’s work on his inspired translation of the Bible.

The text of the McLellin version of Section 65 is very similar to the four other early manuscripts of this revelation as well as the present published version. Apart from punctuation, the only differences between the 1981 edition and the McLellin manuscript are these:

<table>
<thead>
<tr>
<th>1981 Edition</th>
<th>McLellin Manuscript</th>
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<tbody>
<tr>
<td>Verse 1</td>
<td></td>
</tr>
<tr>
<td>Hearken, and lo, a voice as of one sent down from on high . . . whose voice is unto men— Prepare ye the way of the Lord, make his paths straight.</td>
<td>Herken and lo a voice as one sent down from on high . . . whose voice is unto all men prepare ye the way of the Lord make his paths strait.</td>
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<tr>
<td>Verse 2</td>
<td></td>
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<tr>
<td>keys . . . are committed the stone which is cut out of the mountain . . . until it has filled</td>
<td>keys . . . is committed the stone which is hewn from the mountain . . . until it hath filled</td>
</tr>
<tr>
<td>Verse 3</td>
<td></td>
</tr>
<tr>
<td>make ready for the Bridegroom.</td>
<td>Make ready for the comeing of the bridegroom</td>
</tr>
<tr>
<td>Verse 6</td>
<td></td>
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<tr>
<td>that thou, O God, mayest be</td>
<td>that thou O God may be</td>
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</tbody>
</table>

Jos. Smith Revelator
The four other early sources of Section 65 are (1) Manuscript #1 (RLDS), date unknown; (2) a copy found in the Kirtland Revelation Book (87), recorded before August 18, 1834; (3) a version published in the *Evening and the Morning Star* 1, no. 4, September 1832; and (4) a reprint of the same in the Kirtland publication of the *Evening and the Morning Star* 1, no. 4, April 1835. All these texts are similar to the newly found McLellin document in the following ways: They all state that the revelation was received on October 30, 1831, whereas all later sources say only “October 1831.” In verse 1, all five use the spelling “strait.” In verse 6, all five read “That thou, O God, may.”

Each early document, however, has its own peculiar points of agreement or disagreement with the McLellin text. In most sources, verse one reads “a voice as of one,” but the McLellin document, Manuscript #1, and Kirtland Revelation Book all read “a voice as one.” Likewise, the word “forever” appears as two words only in those three manuscripts.

Manuscript #1 often capitalizes nouns, such as “Earth” (vv. 1, 2, 5, and 6), “Gospel” (v. 2), “Mountain” (v. 2), and “Clothed” (v. 5), but these nouns are not capitalized in the McLellin document. Also, “and” is signified by “&” throughout Manuscript #1, while it is spelled out in McLellin. In Manuscript #1, “powerful” is spelled “powerfull,” “until” is spelled “untill” (v. 2); “wonderful” is spelled “wonderfull” (v. 4); and “honor” is spelled “honour” (v. 6). It also contains the crossed-out word “kingdom” in the final verse.

The Kirtland Revelation Book reads “one sent down from above on high,” where the McLellin document also has the words “on high,” but they are written on top of the word “Heaven.” In verse 1, only the Kirtland Revelation Book and the McLellin document read “whose voice is unto all men,” making the revelation more emphatically universal; all other sources lack the “all.” In verse 2, the Kirtland Revelation Book reads “hewed from,” whereas McLellin and the *Evening and the Morning Star* publications read “hewn from.” Most other sources read “cut out of,” while Manuscript #1 reads “hewn from cut out of.” In verse 3, the Kirtland Revelation Book is the only other source to agree with McLellin’s “coming of the bridegroom” and in not capitalizing “son of man” (v. 5).
In spite of several close similarities, the Kirtland Revelation Book also differs from McLellin in certain respects. In verses 1, 2, and 5, respectively, the Kirtland Revelation Book says “and make his paths,” “committed unto men,” and “set upon the earth,” while all other sources, including McLellin, do not contain the “and,” do not have the plural “men,” and put a space between “up” and “on.”

Finally, some aspects of the McLellin document are unique: It alone contains the information “on the 6th Matthew 10 verse,” and uses the spelling “Herken” (v. 1). “Sent down” (v. 1) is not found in any of the four early sources, although it appears in Doctrine and Covenants (1844-46, 1852-1920) and Millennial Star 5 (April 1845): 163. McLellin alone reads, “keys . . . ts committed” (v. 2); likewise, the words “which is” (v. 2) are not found in any of the early sources, but first appear in the Manuscript History of the Church (1841-43). In verse 2, only McLellin reads “until it hath filled”; all other sources use the word “has,” although Manuscript #1 says “hath has”; and in verse 5, “Heaven” is not capitalized in any source besides McLellin.

In light of the fact that all of these manuscripts have points at which they are similar to and different from each of the other sources, it is virtually impossible to determine which is earliest or which was copied from which. For all students interested in textual criticism of the Bible and other important records, this nineteenth-century textual history of Section 65 of the Doctrine and Covenants provides a sober reminder that textual history is an imprecise science often dealing with minute differences that have little effect on the meaning of the text, and that the discovery of a new manuscript often complicates, rather than simplifies, the textual analysis of the document.

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NOTES

1 William E. McLellin to M. H. Forscutt, October 1870, RLDS Archives, published in Saints' Herald 19 (July 15, 1972): 435–37 and (August 1, 1872): 472–74, states, “In 1831, I wrote off a number of the revelations as originally given, and have them now” (436). The mark that appears under some of the s’s (represented in the text by a subscripted comma, †) occurs often in McLellin’s journals and is distinctive of his holographs.


4 Woodford considered this manuscript the earliest of these four. Robert J. Woodford, “The Historical Development of the Doctrine and Covenants,” 3 vols. (Ph.D. diss., Brigham Young University, 1974), 2:830.

5 The information in this article about these four manuscripts is based on Woodford, “The Historical Development of the Doctrine and Covenants,” 2:830–37.
Storm Rider

The sunset brands the mountains in the west; the mesa chills like iron in the shade. He rides the fence line looking for a stray, a Hereford huddled up against the cold.

At times the ululant wind spurs up the snow, like ghosts of white wild stallions in the sage. He finds the yearling struggling in the wire, panicked by this too soon winter rage and wandering from the herd’s familiar smell.

His hands thick with cold, he cuts the fence and slips a rope around the strayer’s neck.

Behind him through the snow he sees the ranch, the house a blur of warm, retreating light. Supper’s going on there in the steam of the adobe kitchen, and his flesh yearns for the black stove’s piñon-scented heat, the fresh tortillas and the spicy meat.

But alone now in the rawness of the range, riding the muscled horse through ice-barbed cold, there’s a vigor in the storm that molds his soul.

He will hear again this chaos call. Silvered pine trees on the mesa’s fringe will anchor roots and tower in his mind.

—Pamela Hamblin
Oil Lamp. This ceramic lamp, which was recovered from a relatively large tomb excavated by a BYU archaeological team, likely provided light for those interring the burials and artifacts. The lamp was crafted during the Egyptian Ptolemaic era. Courtesy of BYU Egyptian Archaeological Project.

Reed Pen and Ivory Saltcellar. The reed pen, which has a split nib, was typical of the Late Egyptian era. The saltcellar may have had religious significance to the early Christians in Egypt. Courtesy of BYU Egyptian Archaeological Project.
Book Reviews


Reviewed by Richard Dilworth Rust, Professor of English at the University of North Carolina at Chapel Hill and General Editor of the thirty-volume Complete Works of Washington Irving.

The image of Joseph Smith found in The Papers of Joseph Smith (PJS) reminds me of the only photographic image we have of Emily Dickinson, a daguerreotype made in 1848. Just as Dickinson’s poetry was posthumously “improved” by Thomas Wentworth Higginson and Mabel Loomis Todd in Poems of Emily Dickinson (1890, 1891), so the rather plain picture of Emily Dickinson was retouched to give her a blush and curls. Some may prefer the touched-up poetry and picture, but I prefer the authentic versions (including The Manuscript Books of Emily Dickinson: A Facsimile Edition [1981]). Similarly, I prefer the unpolished image of Joseph Smith that emerges from PJS, a carefully produced and ongoing collection of the Prophet’s papers.

Volume 1 contains these autobiographical and historical writings dating to Joseph Smith’s lifetime: a transcription of the earliest extant attempt by the Prophet to write a history of his life (1832)—which Jessee notes is Joseph’s “only autobiographical work containing his own handwriting” (1:1); Joseph Smith’s letter to Oliver Cowdery published in the Latter Day Saints’ Messenger and Advocate (1834); manuscript History of the Church (1834–36); journal extract published in the Times and Seasons (1839); 1839 manuscript draft
of *History of the Church*; finished manuscript version of *History* (1839); Orson Pratt’s 1840 account of early Church history, containing the first publication of Joseph Smith’s 1820 vision; Orson Hyde’s *Ein Ruf aus der Wüste* (A Cry from the Wilderness), the first foreign-language printing (1842) of Joseph Smith’s first vision; Joseph Smith’s “Church History,” published in *Times and Seasons* (1842); a Pittsburgh *Gazette* interview with Joseph Smith (1843), containing a distinctive account of the 1820 vision; Daniel Rupp’s section on “Latter Day Saints” in his *An Original History of the Religious Denominations at Present Existing in the United States* (1844), giving in Joseph Smith’s words the origin, history, and beliefs of the Church; and a transcription from Alexander Neibaur’s journal (1844), including an account of the First Vision.


According to the general introduction, forthcoming volumes of *The Papers of Joseph Smith* will continue the Illinois Journal and will also print transcriptions of three copybooks containing correspondence, revelations, and other documents; several hundred items of loose correspondence, revelations, financial records, discourses, and other writings; manuscripts pertaining to the Book of Mormon, the books of Abraham and Moses, and the Prophet’s translation of the Bible; and the manuscript of the documentary history of the Church, begun by Joseph Smith but completed after his death. In other words, the editor hopes eventually to publish the papers of Joseph Smith in their entirety. This comprehensive edition will form a firm documentary foundation for future biographies and other writings about Joseph Smith and the history of Mormonism to 1844.

*PJS* is a historian’s history. If one wanted an engrossing narrative, one might turn to the historical fictions of Gerald Lund. For interpretative accounts which provide extensive contexts for events in Church history, a general audience can profit from books such as *The Mormon Experience* by Leonard J. Arrington,¹ *The Story of the Latter-day Saints* by James B. Allen and Glen M. Leonard,²
Joseph Smith and the Restoration by Ivan J. Barrett,\(^3\) and Joseph Smith and the Beginnings of Mormonism by Richard L. Bushman.\(^4\) For extensive and official Church history laid out chronologically and with helpful notes, one turns to the multivolume *History of The Church of Jesus Christ of Latter-day Saints.*\(^5\) But for an experience of consulting reliable substitutes for the original manuscript journals and the like, one will want to read and cite the *PJS.* The scrupulous accuracy of the transcriptions of the seven facsimile manuscript pages reproduced in the two volumes causes me to presume the rest of the transcriptions are as carefully presented. (I found only one punctuation error.) The texts are supplemented by helpful notes; extensive and up-to-date citations—which point directions for further study; beautifully clear maps; and a biographical register with significant information, where available, on the persons mentioned in the body of the volume. Only one who has been digging for information about people living in the first half of the nineteenth century can fully appreciate Dean Jessee's remarkable accomplishment in his detailed notes and biographical registers.

Most of the writing in these volumes was produced by scribes (for example, James Mulholland, George W. Robinson, and Willard Richards). Of the 1,587 manuscript pages comprising the Joseph Smith journal, only 31 contain holograph writing; another 250 were evidently dictated to scribes. There are thus varying degrees of closeness to the Prophet in these pages.

The transcriptions are presented in a form that the editors of the Mark Twain papers call "plain text." Deletions are struck through; Joseph Smith's holograph is indicated by bold type; editorial insertions are enclosed in brackets; deciphered shorthand is enclosed in braces (\{\}), and so forth. I could wish, though, for some consistency in documentary editing. Editors of *The Papers of Thomas Jefferson,* cited by Jessee as an example of the type of modern editorial enterprise of which *PJS* is a part, use angle brackets (\langle\rangle) to mark material deleted in the manuscript but restored in their text. Angle brackets in recent volumes of *The Papers of James Madison,* another comprehensive editorial project, mark characters and words restored by conjecture. The editor of *PJS* has chosen to use angle brackets to indicate insertions that are part of the original text. Since I have
been used to seeing these brackets as indicators of deleted material, I have difficulty thinking of them as marking insertions.

With the editor's help, the texts are relatively easy to read despite their idiosyncrasies of punctuation and orthography. We know Judge King stayed all night when we read, "The Judge stayed all knight," and we know that "Liberty Jaol" is a jail (or gaol). What the texts provide, in varying degrees, is an immediacy and closer access to the Prophet. This is especially true of portions of the 1832 history of Joseph Smith in his own handwriting (1:3–9). Although they are not replacements for the manuscripts, the transcriptions are presented so that one can read and quote from them as though they were the originals (with manuscript pages marked in brackets).

In this respect, I am puzzled by one of the editor's citations in the general introduction. While his footnote (misnumbered) is to Joseph Smith, History, 1832 (the first segment of volume 1), the quotation does not accord with what one finds in the transcription. Jessee uses the following to illustrate Joseph Smith's "attitude of wonder, admiration, and awe for the physical universe":

I looked upon the sun the glorious luminary of the earth and also the moon rolling in their majesty through the heavens and also the stars shining in their courses and the earth also upon which I stood and the beast[s] of the field and the fowls of heaven and the fish of the waters and also man walking forth upon the face of the earth in majesty and in the strength of beauty whose power and intelligence in governing the things which are so exceeding great and marvelous even in the likeness of him who created them and when I considered upon these things my heart exclaimed, well hath the wise man said, it is a fool that saith in his heart there is no God. (1:xxx)

Yet the text presumably quoted from is unpunctuated and has these spellings by Joseph Smith: “mastery,” “intelligence,” “exceeding,” and “marvelous” (1:6). The silent correction of Joseph Smith's writing undermines the editor's position that "an individual's personality is a reflection of the totality of his being, including his handwritten prose. Hence, in formulating rules for the present edition, I have emphasized preserving the integrity of the original sources" (1:xxxvii).

I have several impressions after reading these two volumes. The first is a more immediate sense of the personality of Joseph Smith (although Jessee's earlier volume, The Personal Writings of Joseph
Smith, gets one even closer to him). The Prophet’s energy appears in statements like this from an August 1842 letter to Emma: “Let Lorain [Lorin Walker] and brother [William] Clayton come along and bring all the writings and papers, books and histories, for we shall want a scribe in order that we may pour upon the world the truth like the Lava of Mount Vesuvius” (2:431). His love and sensitivity are apparent in his tributes to friends and family, such as: “Alvin my oldest brother, I remember well the pangs of sorrow that swelled my youthful bosom and almost burst my tender heart, when he died. He was the oldest, and the noblest of my fathers family. He was one of the noblest of the sons of men” (2:440).

As with History of the Church, which contains much of the same matter as PJS, one finds in PJS Joseph Smith’s generosity of soul, good humor, courage, and perseverance in the face of extreme adversity, love of learning, expansiveness of thought, devotion to family and friends, forgiveness of repentant persons, joy in living, and deep religious feelings and understanding.

As I have moved frequently from the texts to the biographical registers in these volumes, I have been struck by how many of the Latter-day Saint men mentioned in the histories left the Church. I also have noticed how many of the enemies of Joseph Smith and the Church were, post-1844, governmental officials, lawyers, and judges.

Volume I is especially interesting to me in presenting multiple versions of the heavenly manifestations that began the history of the Church. The materials are arranged chronologically by publication or composition date, though, so one might want to turn to the extensive index for assistance in comparing or conflating these accounts of specific occurrences.

Dean Jessee has been studying these papers for more than two decades and is now bringing them forth for others to use as well. Jessee’s earlier compilation and edition of The Personal Writings of Joseph Smith has met with much praise. His two volumes of PJS deserve a continuation of that praise.

A final word should be said about the appearance and readability of these first volumes of PJS. Designed by Kent Ware, they are handsome. The Trump Mediaeval font is open, attractive, and very readable. (By contrast, the Jefferson and Madison editions have
perhaps twice as many words to the page in less attractive fonts.)
The binding is equally attractive. I look forward some day to seeing
the complete edition lined up on a shelf, making available to the
casual reader as well as to the historian Joseph Smith’s papers in
completeness and accuracy.

NOTES


RICHARD NEITZEL HOLZAPFEL and JENI BROBERG HOLZAPFEL. Women of Nauvoo. Salt Lake City: Bookcraft, 1992. iii; 225 pp. 31 illustrations, bibliography, index. $11.95.

Reviewed by Susan Easton Black, Professor of Church History and Doctrine at Brigham Young University.

At last, a text on the women of Nauvoo! Finally, an opportunity to read “her-story” alongside the oft-repeated “his-story” of an era filled with growth, prophecies, and covenants. Because few historians have attempted an article on Nauvoo women, the promise of this book evoked a cheer. A well-done, scholarly text that focuses upon the sister Saint from 1839 to 1846 has been a much-sought addition to LDS Church history.

Recalling the Prophet Joseph Smith’s admonition that “every man should keep a daily journal,” I eagerly opened the text to see if the authors had discovered that women had followed his counsel.1 Unfortunately—judging by this book—comparatively few women of that era (many of whom were literate) seem to have accepted the advice. The men who kept journals recorded very little about women and their lives, experiences, and feelings. To state that the text is simply a rehash of known history about women would be unfair, but to announce abundant new insights without qualification would be to misrepresent it.

The book jacket assures the reader of an extensive perusal of admittedly sparse but illuminating primary sources, such as the Nauvoo Relief Society minutes, contemporaneous diaries and letters, and later reminiscences by women of early Nauvoo. These sources, as valuable as they are, have proven a saturated field to less energetic historians, but to the more creative, eager authors, quoting the same women again and again has proved fruitful. Perhaps letters, memoirs, and other journals written by Nauvoo women may yet become available to historians as posterity channels their carefully preserved treasures into historical depositories for research and safekeeping. Until then, George A. Smith’s perception may be confirmed, that “many records are nearly obliterated by time, damp, and dirt, others lost; some half worked into mouse nests.”2

The authors’ optimistic promise that “the stories contained in this book represent numerous unrecorded stories of women in our
history” (ix) seems overstated. For example, the story of Mary Ann Weston Maughan, a young widow filled with grief leaving her English homeland to join the Saints in Nauvoo, is dramatic rather than representative. Forty-six years after leaving England, she penned, “Now I had left all and was traveling [sic] alone to a land unknown to me, but I had cast my lot with the people of God and in him I put my trust.” Her remembrance is heartrending, but does it represent the typical Nauvoo woman?

The retelling of the clearly extraordinary is a thread that links all chapters. The story of Jane Elizabeth Manning, an African-American convert who walked with her extended family from New York to Nauvoo, introduces the second chapter. “We walked until our shoes were worn out, and our feet became sore and cracked open and bled until you could see the whole print of our feet with blood on the ground” (7). Her extraordinary story is followed by excerpts from the lives of Sarah Pea Rich, Emma Hale Smith, and Mary Fielding Smith. Prominent, yes; representative, no.

Why were these accounts extraordinary? They were events in the lives of women at the center of Nauvoo’s citizenry. Jane Elizabeth Manning James lived in the Mansion House during her Nauvoo years, in close association with Joseph, Emma, and those in the leading councils of the Church. Emma Hale Smith and Mary Fielding Smith were wives of the Presidency. Sarah Pea Rich was the wife of Elder Charles C. Rich, a member of the high council. Their experiences were poignant and revealing but do not represent the hundreds of women who lived in wooden cottages.

The wish for more views from the majority does not suggest that the women close to the leaders are not highly valued. It does, however, suggest a caution regarding how representative their views were and a challenge to seek for “the rest of the story,” both about these individual women as whole people and about their full lives together. Shifting the focus to the more typical woman would require added documentary research. The inherent population bias and the paucity in the known sources by and about women, however, leaves a research historian with the impossible quest of fairly representing the era.

Historians would agree that to categorize the highly heterogeneous women under one label would be unfair. But unfortunately,
the authors continually seek to pin down and to speak generally of the divergent population: "These sister Saints [were] often alone and without companionship" (2). Later their characterization shifts: "Many sister Saints arrived in Nauvoo with family members by their sides" (73). Their difficulty in reaching a homogeneous picture of women in early Nauvoo is fascinating but leaves the reader muddled. Too often, the book's narratives are strung together with generalizations, unaided by the broader context of Church history, women's history, and American history.

Adding to the confusion is an overlay of modern rhetoric on that of Nauvoo in the 1840s. The authors write, "During the next summer, Isaac returned east to help his mother and father, Katurah Horton and Caleb Haight, gather with the Saints" (20). This statement causes the reader to wonder why Katurah retained her maiden name (modern feminist practice, but certainly not the practice of early Nauvoo). In a book about women, understandably the mother would be mentioned first, but historical sources consistently mention the father first.

Of greater concern is the occasional editing and paraphrasing of original sources to highlight the authors' emphasis on women. The Holzapfels selectively quote from journals to convey their own message. For example, they write, "Another Missouri Saint, Nancy Tracy, made a 'cart out of two wheels of an old wagon'" (12). The autobiography of Nancy Tracy states: "As for my family, all my husband could do was to make a cart out of two wheels of an old wagon and one horse to draw it." Nothing in her autobiography indicates that she made the cart.

Another example comes from the writings of Annie Wells Cannon. The authors quote her as stating, "In the forced exodus from Nauvoo, the [sisters], though separated in different companies coming west, carried the spirit [of sisterhood] through the journey, over prairie, plain, and mountain" (47; italics added). However, Annie Wells Cannon actually penned, "In the forced exodus from Nauvoo the Relief Society women, though separated in different companies coming west, carried the spirit of the work through the journey over prairie, plain, and mountain." The authors' paraphrases not only read awkwardly, but also fail to give the proper recognition to the women's organization.
The authors' modernization of spelling, punctuation, and capitalization for readability, bolstered by the already fictional flavor resulting from the foregoing problems, further detracts from this text. Perhaps for the casual reader this modernization is beneficial, but to quote Dean Jessee: "To preserve the characteristics of someone's writing is to preserve evidence of personality, literary orientation, training, temperament, and mood." 7

In spite of these problems, the authors have produced a book that makes interesting reading. The chapter entitled, "The City of Joseph—Sisters Mourn," is filled with well-selected quotes depicting an atmosphere of emotional despair at the martyrdom of Joseph Smith. The chapter on the history of the early Nauvoo Relief Society is well done and is effectively organized.

Other chapters are more a mosaic than an organized discourse. "Nauvoo—A City of Women" is a series of uninterpreted vignettes about letter writing, hat making, teaching, prayer meetings, berry picking, weather conditions, Christmas, Thanksgiving, samplers, pincushions, dolls, and horseback riding. Only the very alert reader will discover a clear picture emerging from these disparate elements, which the authors tie together only with broad generalizations. "New Revelations—A Time of Testing" leaves the reader puzzled by what was included and what was omitted. Choosing the writings of Charlotte Haven, a nonmember, to mock the solemnity of the revelations seems misguided.

The discussion of women crossing the Mississippi River on February 4, 1846, could have been strengthened by including a documented, stirring account penned by Eliza R. Snow: "I was informed that on the first night of the encampment nine children were born into the world, and from that time, as we journeyed onward [from Nauvoo westward in 1846], mothers gave birth to offspring under almost every variety of circumstances imaginable." She dramatically added:

Let it be remembered that the mothers of these wilderness-born babes were not savages, accustomed to roam the forest and brave the storm and tempest—those who had never known the comforts and delicacies of civilization and refinement. They were not those who, in the wilds of nature, nursed their offspring amid reeds and rushes, or in the recesses of rocky caverns. 8
How well did the authors fulfill expectations? The Holzapfels have produced a readable glimpse of early Nauvoo. They have dealt, with varying degrees of success, with the problems that beset any writer who attempts to recreate the Nauvoo era from multiple sources. These problems include the serious and possibly unsolvable issues of biased representation and severely limited primary documents. The struggle with shifting perspectives may reflect the rapidly changing and heterogeneous population of Nauvoo as much as it does the multiple perspectives of the authors and their not-too-hidden objectives.

Perhaps it is merely an historian's dream to hope that a book will yet be published about the women of Nauvoo resolving the problems confronted by this text. Perhaps Mary Ann Stearns Winters said it best: "We can only look for the record of it in the archives above" (1). The authors' own conclusion, "This book is a small effort to rediscover and recall the rich spiritual heritage found in Nauvoo, especially among the great sisterhood that transcends both time and place" (ix, italics added), aptly expresses my own opinion.

NOTES

1 Oliver B. Huntington, Autobiography, Special Collections, Harold B. Lee Library, Brigham Young University, Provo, Utah, 26.


4 Biography of Jane Elizabeth Manning James, unpaged, Archives Division, Church Historical Department, The Church of Jesus Christ of Latter-day Saints, Salt Lake City; and "Jane Manning James: Black Saint, 1847 Pioneer," Ensign 9 (August 1979): 26.

5 Nancy Tracy, Autobiography, Bancroft Library, University of California at Berkeley, 17-18.


7 Dean C. Jessee, ed., The Personal Writings of Joseph Smith (Salt Lake City: Deseret Book, 1984), xxiv.


Reviewed by Lowell C. "Ben" Bennion, Professor of Geography at Humboldt State University, Arcata, California.

In recent years, studies of Mormon plural marriage have multiplied almost as rapidly as polygamous families did more than a century ago. With this book, Carmon Hardy, who teaches American history at California State University in Fullerton, has made a major contribution to our understanding of the solemn covenant of plurality. His study, *The Mormon Polygamous Passage* (1831–1911), began with his 1963 dissertation on “The Mormon Colonies of Northern Mexico,” and he has steadily expanded that research ever since. *Solemn Covenant*, Hardy’s first book, serves as a marvelous, if belated, commemoration of the centenary of Wilford Woodruff’s 1890 Manifesto.

The volume’s length, vague title, and price should not deter any student of LDS plural marriage from purchasing it. If one discounts the indexes, the list of 262 post-Manifesto plural marriages, and the extensive notes at the end of each chapter, the actual text amounts to about 250 pages. The 5:9 ratio of text to total length reflects the confusion surrounding post-1890 polygamy and Hardy’s penchant for documenting his sources.

The title barely hints at the scope and focus of the book, but the introduction makes clear its overriding aim: to trace “the transformation of Mormonism from a society that idealized polygamy to one that . . . now exalts the traditional monogamous home” of Victorian America (xxi). The book began as an attempt to explain why almost half of the Latter-day Saint Church’s top authorities, along with more than two hundred other men, took plural wives after the 1890 Manifesto. Hardy soon realized that a full understanding of polygamy’s protracted demise (1890–1911) required consideration of its equally prolonged birth (1831–52) and of the periods when Mormons practiced it openly (1852–85) or in hiding (1885–90) under federal pressure to abandon it.
Thus, the first three chapters treat the Church's efforts to make a plurality of wives as much a part of its patriarchal theology as a plurality of gods. As a historian of ideas, Hardy places this attempt in the context of a little-known current of early modern Western thought that favored polygamy over monogamy. He takes issue with those who "portray plural marriage as incidental to the major thrust of the Latter-day Saint past" (18). He insists they have underestimated the importance attached to a divine order that would allow males to satisfy their polygamous natures, eliminate prostitution, and even "whiten" Native Americans. Such beliefs gained strength as the Saints gathered west to populate an ever-expanding Great Basin Kingdom.

Ironically, in Hardy's view, polygamy emerged triumphant in Mormon theology just as Victorian America made monogamy a near religion. Reform-minded Americans soon viewed Mormon Utah in much the same way that orthodox Mormons now perceive worldly Nevada. Hardy sees the growing gentile attacks on the Saints as more than a mere ruse to wrest control of the territory from the Church. He concurs with an 1887 conclusion of the Utah Commission: "The political history of the territory of Utah and the system of plural marriage are so closely interwoven that the one cannot be considered separate and apart from the other" (57).

Only by recognizing the Mormons' strong belief in the "Blessings of the Abrahamic Household" (title of chapter 3), Hardy contends, can one fathom their extreme reluctance to abandon the plural principle. From 1885 until at least 1904, the Church, in its "Tactical Retreat: The Manifesto of 1890" (chapter 4), presented "itself as increasingly obedient while privately refusing surrender" (127). It issued not one but a dozen or more declarations designed to assure the nation that Latter-day Saints would honor the laws of the land. These manifestos invariably caused consternation among outsiders, controversy among Church leaders, and confusion among members.

Hardy's fine sense of irony manifests itself repeatedly as he examines the retreat from the principle. The Gentiles, notably Utah's governor and Salt Lake City's Tribune, pressured Mormon leaders into submitting the Manifesto to an immediate vote of the Church to make it more binding. Such pressure eventually helped
persuade the Church to make it an official revelation by adding it to the Doctrine and Covenants (1908). Hardy clearly agrees with Apostle Marriner W. Merrill's 1891 view: "I do Not believe the Manifesto was a revelation from God but was formulated by Prest. Woodruff and endorsed by His Councilors and the Twelve Apostles for expediency to meet the present situation of affairs in the Nation or those against the Church" (150).

The Church's frequent authorizations of plural marriage at home and abroad after 1890 provide the best evidence, in Hardy's eyes, of Mormonism's commitment to the principle. And he devotes the second half of the book (chapters 5-10) to polygamy's long and painful death. In the early 1890s, few plural marriages took place. But once Utahns gained statehood (1896), the number increased—first under Woodruff, then even more under a cautious Lorenzo Snow, and finally most of all under Joseph F. Smith (see graph, 317). Rather than inhibit Mormon interest in contracting new polygamous unions, the B. H. Roberts hearings seem to have intensified it, with the figure rising to forty in 1903. Chapters 5 and 6 (plus appendix 2) contain considerably more detail than Michael Quinn's 1985 article about the circumstances that prompted and enabled dozens of men, a majority of them prominent Church leaders, to imitate Abraham.¹

John W. Taylor and Matthias F. Cowley were merely two of nine or ten General Authorities who did not let the 1890 Manifesto deter them from taking plural wives. Hardy even thinks it "likely that President Wilford Woodruff also took a new plural companion in 1897" (227), although Woodruff's latest biographer disagrees.² Whether the President did or not, the rising incidence of polygamy sparked new rounds of debate among national progressive crusaders and Church leaders. The Smoot hearings of 1904-6, discussed in chapter 7, failed to convince the nation of Mormon sincerity in giving up plurality. National skepticism compelled the Church not only to issue another manifesto but to request the resignations of Taylor and Cowley.

Even those actions did not end authorized plural marriages. Between 1904 and 1911, three dozen more were performed by a dwindling number of certain general and local authorities committed to perpetuating the practice. In response to the Salt Lake
Tribune's reports of a new "outbreak," the Church conducted its own hearings in 1910-11. And at Senator Smoot's urging, it excommunicated and/or removed from leadership positions a number of polygamists. Just as the principle's death knell finally seemed to sound, the Mexican Revolution forced the largest colony of Mormon "cohabs" across the U.S. border and brought polygamy once more under the national spotlight. By 1912, however, as chapters 8–10 make clear, monogamy had all but triumphed among a new generation of Mormons and had brought them "to a condition of estrangement from their polygamous past" (338). While hundreds had persisted in keeping plurality alive, tens of thousands had accepted the Church's public statements and turned their backs on the principle, even on the refugees from northern Mexico. The few who clung tenaciously to polygamy, the so-called fundamentalists, simply strengthened the Church's determination to defend monogamy.

For reasons not specified, Hardy's concluding essay appears as appendix 1 rather than as a chapter 11. Some readers may find the implications of its title—"Lying for the Lord"—as difficult to accept as Mormon responsibility for the Mountain Meadows massacre, but the phrase seems justified. Hardy demonstrates with numerous examples how the hierarchy rationalized its use of questionable measures to preserve the principle and to protect those striving to keep it alive. Each successive crisis after the Edmunds Act of 1882 naturally led to greater dissimulation. Some Church leaders recognized the trend and expressed their fear, in the words of Charles W. Penrose, that it might make the ""rising generation a race of deceivers"" (368). Hardy concludes that "the decision to project only the appearance of compromise" brought all kinds of agony upon the church, including the persistence of Mormon fundamentalism (376). He confirms what other scholars have found, but places post-Manifesto polygamy in a much broader and more balanced context.

Professor Hardy has achieved his aim of illuminating polygamy's imprint upon the palimpsest of Mormon history and in tracing "the trying passage of its decline." He urges his readers to "remember [that] there were thousands of devoted men, women, and children whose lives were given to its trial" (352). Appropriately enough, he dedicates the volume to them. Some may wish he had devoted
more space to the trials experienced by plural Mormons, particularly the wives who comprised the highest percent of the population involved and probably suffered the most. They certainly deserve another volume from Hardy’s logical mind and generally lucid prose. Perhaps he can respond to that request by revising and publishing his doctoral thesis.

However, Hardy may hesitate to write another book about polygamy for the same kinds of “personal considerations” that prompted Victor W. Jorgensen to withdraw his name as coauthor (xi). Both authors found the experience a trying one because of negative reactions from certain kith and kin who seem to share the Church’s view that the less written about Mormonism’s plural past the better. Perhaps though, thanks to their superb illumination of Mormonism’s rough passage from monogamy to polygamy and back to monogamy, others will find it easier to speak and write about the plural and tangled lives of so many nineteenth-century Saints.

To the credit of both Carmon Hardy and the University of Illinois Press, *Solemn Covenant* has very few typos and unclear passages. (For one example of the latter, see the last sentence on page 369.) The book contains a set of photographs, mostly of key leaders of the Church, but fails to integrate them directly with the text. Only three of the illustrations include wives, and the one I like best does not identify seven young mothers (each holding an infant) in exile in Mexico at the turn of the century.

Many readers may find *Solemn Covenant* a bit too solemn. In his relentless search for post-1890 polygamists, Hardy seldom offers any relief from the *Sturm und Drang* that accompanied the passing of the principle. His portrayal of the fate of the few who entered the plural order after 1890 evokes so much pathos that one longs for some humor from, say, Dixie or Sanpete folklore. Several portraits make the polygamists seem like rather pathetic figures (see, for example, Hardy’s treatment of Apostle George W. Teasdale on pages 222–27). The book thus often conveys the impression that plural living had no redeeming features.

Such an image clearly counters the Pollyanna conclusion that “while some [polygamous families] were very unhappy, most seemed to have gotten along very well.” Neither view adequately represents
the complex reality of plurality for two generations of Mormons. Whether practiced openly or secretly, plural marriage affected its participants in such diverse ways that broad generalizations based on specific periods and sources become suspect. Even within a single plural family, members reacted to the principle in markedly different fashion, and their reactions often changed through time.\textsuperscript{4}

The recent spate of polygamy studies may seem like a surfeit to some readers. But if \textit{Solemn Covenant} is correct about the central place of plural marriage in nineteenth-century Mormonism, then "Polly Gamie"—Apostle Orson Hyde's favorite topic, according to one unmarried woman in Manti—deserves many more scholarly articles and books.

\textbf{NOTES}

\textsuperscript{1}D. Michael Quinn, "LDS Church Authority and New Plural Marriages, 1890-1904," \textit{Dialogue} 18 (Spring 1985): 9-105.


\textsuperscript{4}For a recent demonstration of how differently the principle operated upon individual lives, see Maria S. Ellsworth, ed., \textit{Mormon Odyssey: The Story of Ida Hunt Udall, Plural Wife} (Urbana: University of Illinois Press, 1992).


Reviewed by Robert Steven Pratt, Jared Pratt Family Historian and Director of Resource Management, 26th Area Support Group, Heidelberg, Germany.

Parley Pratt was a pivotal figure in early Mormon history. Much of what is regarded as “Mormon doctrine” was expounded in his many theological works. He has been characterized as an intellectual second only to Joseph Smith in the early Mormon movement and a synthesizer of the semisystematic set of theological arguments within Mormonism.1 Timothy L. Smith credits Pratt with effectively appealing to biblical authority to establish the credibility of the Book of Mormon and the revelations later published in the Doctrine and Covenants.2

For Pratt, Mormonism, “instead of being confined to a few dogmas or general truths, opens the flood gates of all truth and knowledge, and teaches mankind to retain all the truth they can already comprehend, and comprehend as much more as they can all the time.”3 The Restoration itself was, in his view, an outpouring of truth by new revelation, by the authorities of heaven, by the ministration of angels, by the ordination of Prophets and Apostles, and ministers or Elders, by their testimony and ministry on the earth, by the organization of Saints, by the administration of ordinances, by the operations of the Holy Spirit, [all] for the government of man.4

Pratt went to great lengths to expound these teachings through such diverse media as books, pamphlets, tracts, essays, poems, fictional works, hymns, plays, historical works, and editorials. Several hundred works emerged from his pen.

Most students of Mormonism are familiar with *A Voice of Warning, Key to Theology*, and *The Autobiography of Parley P. Pratt*. Eight hymns written by Parley Pratt are contained in the current LDS hymnal. However, due to the inaccessibility of much of his work, Pratt’s other extensive contributions to early Mormon literature and theology are not widely understood and appreciated. Twentieth-century attempts to make Pratt’s writings available
include Samuel Russell's 1913 publication of *The Millennial Hymns of Parley P. Pratt*, containing fifty selections of Pratt's poetry set to music, and Parker Pratt Robinson's *Writings of Parley Parker Pratt*, published by Deseret Press in 1952.

The most recent effort is *The Essential Parley P. Pratt*, the first book in the new Classics in Mormon Thought Series by Signature Books. This book contains twenty selections from Parley Pratt's writings, a publisher's preface, and a foreword by Peter Crawley, which is a reproduction of Crawley's excellent 1982 Mormon History Association presentation, subsequently published in *Dialogue*. In his study, Crawley places Pratt's writings within the context of the Church's first decade, when little was published "that dealt with any aspect of Mormon theology" (xvi). Pratt's early pamphlets describing basic doctrines were among the first Latter-day Saint theological works. Crawley boldly contends that Pratt was the inventor of Mormon book writing and that many of the Latter-day Saint theological works to follow were patterned after his earlier compositions.

While Pratt was the first to publish certain ideas and concepts unique to Mormonism, Crawley would likely agree that many of the concepts Pratt introduced were not original with him. E. Robert Paul has already observed that Pratt's unique literary talents were used to synthesize the ideas of Joseph Smith and others into a systematic theological system. Joseph Smith himself seemed to suggest this in a speech he gave to the Relief Society on April 28, 1842. He may well have been alluding to Parley Pratt, among others, when he referred to "great Big Elders" who, having received Joseph's teachings in private, would then "go forth into the world and proclaim the things he had taught them; as their own revelations." Pratt's writings had to be revised in some instances because he had published teachings which were either not in harmony with the Prophet's view or had not been cleared with the Prophet before publication.

While Joseph Smith's influence is very evident in Pratt's writings, such nineteenth-century thinkers as Charles Lyell, Thomas Chalmers, Timothy Dwight, Thomas Dicks, and others may also have helped shape his style and thought. Parley's beginnings were
near New Lebanon, New York, a hotbed of various religious and philosophical systems from that of the Shakers to the transcendentalists. Naturally, questions are raised as to how much their ideas influenced him and whether he was attracted only by the primitive gospel movement. In light of these questions, an essay on Parley’s major ideas in light of European and American intellectual history would have greatly added to an understanding of the selections the publisher chose.

The publisher’s preface is probably the weakest part of the overall work; the factual information is too often inaccurate. For example, the death of Pratt’s wife Thankful is placed in Canada while he is serving a mission there (xi). Actually, she died in Kirtland with Pratt present on March 25, 1837, and was then buried in the churchyard near the temple.9

The brief dissent of Pratt during the Kirtland period is only partially explained. The preface indicates that Pratt, leading other dissenters, “accused Smith of false prophecy,” referring, I assume, to a letter Parley sent to Joseph Smith which was later stolen by Warren Parrish and published in Zion’s Watchman. “Smith countered by calling a church court to excommunicate the dissenters,” the preface continues (xi), with reference to the high council trial fiasco described in History of the Church.10 The reader of The Essential would not know this because there are no footnotes. In fact, Pratt wrote two letters to Joseph Smith and gave speeches in the Kirtland Temple stating he was against the Prophet’s business dealings.11 He claimed, however, that the Zion’s Watchman letter had been altered by Parrish. Pratt felt that although Joseph Smith and Sidney Rigdon had used poor judgment in the Kirtland Safety Society they were still “men of God.”12

Shortly after Thankful’s death, Pratt married Mary Ann Frost Stearns, a widow, on May 14, 1837, not on May 9, 1838, as indicated by the publisher (xi).13 Probably the most misleading section of the publisher’s preface is the account of Parley’s adoption of plural marriage and the divorce of Mary Ann. Explaining the complexities of Pratt’s marriages is beyond the scope of either the publisher’s preface or this review, but some clarification is required here. Pratt learned about his right to take additional wives in June 1843.14
Contrary to what is written in *The Essential*, Parley and Mary Ann consulted together on prospective wives, though Mary Ann was initially very much opposed to the doctrine.15 After consultations with Vilate Kimball, Heber C. Kimball’s first wife, Mary Ann gave her consent.16 Parley and Mary Ann were close during 1843 and 1844, even though three other plural wives joined the family: Elizabeth Brotherton on July 24, 1843, Mary Wood on September 9, 1844, and Hannahette Snively on November 2, 1844.17 Mary Ann appears to have accepted the other wives and certainly knew about them. The publisher’s preface indicates she did not (xi).

However, Mary Ann did not know about the November 20, 1844, sealing of Belinda Mardin Hilton and Parley P. Pratt until August 1845. Rumors of their relationship may well have reached her earlier, probably through Sarah, the outspoken wife of Parley’s brother Orson.18 By the time ordinance work began in the Nauvoo Temple, Mary Ann and Parley were having serious disagreements. She was sealed to Joseph Smith for eternity and to Parley for time on February 6, 1846, but never considered herself a Pratt from that time forward. They were divorced in 1853.19

Another inaccuracy in the publisher’s preface is the discussion of the writing of Pratt’s *Autobiography*. *The Essential* maintains that this important document is the work of Parley Pratt, Jr., John Taylor, and George Cannon (xiii). While the first two edited the work extensively, Cannon served only as a scribe for the nearly three-hundred page manuscript section of the *Autobiography* which precedes the 1851 journal. Pratt’s history is a compilation from several sources, but almost 90 percent of it comes from his own earlier writings.20

What about the text of *The Essential* itself? Is this a valuable documentary source book? On the whole, it is not. Even though the editors are quite accurate in reproducing Pratt’s twenty original printed works, they leave it at that. There are no explanatory footnotes to help the reader decipher names, places, and scriptural passages. Because Pratt used references from the 1830 edition of the Book of Mormon, citing page and line number, the present-day references would have been helpful.
The publisher has not explained or justified selection criteria, and the question naturally arises whether the twenty selections really represent the "essential" Parley P. Pratt. Pratt wrote many theological and literary works, publishing some in books and tracts and others in newspapers and periodicals. The emphasis of this work is mainly his already more accessible published pamphlets and tracts. The editors include only one example of Pratt's poetry, which in reality made up a large part of his writings. A complete bibliography of all Pratt's works and a brief discussion preceding each selection and explaining its particular significance would have added greatly to this work.

In some instances, a work selected for The Essential has appeared in several editions, but the editors have reproduced only the original edition, which in many cases was later modified. Documentary editors must weigh several factors in deciding to use a particular edition of an author's work, suggests Mary-Jo Kline's Guide to Documentary Editing. One might choose the edition that reflects the author's most fully expressed intentions, the edition that is the most historically significant, or the edition deemed to be the most literary.21 This decision presupposes a very thorough knowledge of the various documents and the author, none of which is evident here.

There can be good reasons for choosing the original edition, but footnotes showing corrections from subsequent editions or references to original manuscripts would be helpful and maybe even necessary. For example, The Essential includes an 1853 sermon entitled "Spiritual Communication" (172-83), which was published in Journal of Discourses (1:6-15). The Parley P. Pratt Papers at Brigham Young University Special Collections contain part of the manuscript of the speech as recorded by stenographer George D. Watt. Watt told Pratt he wanted the speech in the hands of the "compositor early on Monday Morning" and to "please use dispatch, and oblige your Bro in the bonds of peace." Pratt apparently "corrected" the Watt version, for there are several differences between the manuscript speech and the printed version. A short example at the very end of the speech is instructive. The manuscript reads, "I have received the Holy Anointing, and I cannot rest; there I have told it now. You see when I get to talking I never know when to stop, but I will give (wa)y for I want to hear from my Bre &c May
God Bless you all Amen.” The printed version reads, “I have received the holy anointing, and I can never rest till the last enemy is conquered, death destroyed, and truth reigns triumphant. May God bless you all. Amen.” Even though it would have taken additional work on the part of the editor to refer to this and other similar changes from the manuscript, the effort could certainly have helped the reader see how Pratt’s ideas went from a transcript of the spoken word to the printed page.

A careful comparison of various editions can help the reader understand the development of the author’s thought and literary abilities over time. This is crucial in the case of Pratt’s writings because he wrote while Mormon theology was developing rapidly. *The Essential*’s chapter entitled “Kingdom of God” is taken from the original 1837 edition of *Voice of Warning* which, though significant, was modified in later editions. The 1847 edition in particular not only changed some of the wording of the original version, but actually reduced the length of the book itself.²²

Pratt’s writings were modified both by himself and by subsequent nineteenth- and twentieth-century Mormon theologians. For example, the *Key to Theology* was extensively revised by Charles W. Penrose to make Pratt’s work concur with the prevailing doctrine at the time, especially with reference to the Holy Ghost and plural marriage. Since the original edition’s chapters were included in *The Essential*, the changes made by Penrose might have been included in the footnotes so the reader could trace the development of several Mormon doctrines from the nineteenth century into the twentieth.²³

It is always exciting to read the writings of Parley P. Pratt, one of the paramount intellectual thinkers of early Mormonism. *The Essential* is important in that it brings us a bit closer to the man, his writings, and the milieu of early Mormonism. Unfortunately, the book is flawed and deficient. The definitive documentary source book on Parley P. Pratt remains to be compiled.
NOTES


4 Pratt, “Mormonism,” 308.


7 Nauvoo Relief Society Minutes, April 28, 1842, Archives Division, Church Historical Department, The Church of Jesus Christ of Latter-day Saints, Salt Lake City (hereafter cited as LDS Church Archives); Andrew F. Ehat and Lyndon W. Cook, *The Words of Joseph Smith* (Provo, Utah: Brigham Young University, 1980), 114-19 (see especially 116); Wilford Woodruff, Journal, end of 1842, Wilford Woodruff Papers, LDS Church Archives; and Wilford Woodruff, *Wilford Woodruff’s Journals*, ed. Scott G. Kenney, 9 vols. (Salt Lake City: Signature Books, 1984), 2:199.


11 Orson Pratt and Lyman Johnson to Newel K. Whitney, May 29, 1837, Newel K. Whitney Papers, Special Collections, Harold B. Lee Library, Brigham Young University, Provo, Utah; Mary Fielding to Mercy Fielding, June 15, 1837, Mary Fielding Smith Papers, LDS Church Archives; Mary Fielding to Mercy Fielding, July 5, 1837, Mary Fielding Smith Papers, LDS Church Archives; and Mary Russell to Isaac Russell, July 17, 1837, Isaac Russell Papers, LDS Church Archives.

14 *Messenger and Advocate* 3 (May 1837): 512; and Parley P. Pratt, “Family Record of Parley Parker Pratt,” Parley P. Pratt Papers, LDS Church Archives. The latter record is a handwritten record kept by Parley of all his family vital statistics, marriages, and blessings.

15 Pratt probably did not learn about plural marriage in 1839 as suggested in *The Essential*, though he was concerned about the relationship he and his first wife Thankful would have in the hereafter and learned from Joseph that she would be his for “time and all eternity.” Pratt, *Autobiography*, 259–60.


18 Pratt, “Family Record”; Parley P. Pratt to Hannahette Snively Pratt, June 5, 1845, Parley P. Pratt Papers, LDS Church Archives; and Parley P. Pratt to Mary Ann Pratt, December 18, 1844, Parley P. Pratt Papers, LDS Church Archives.

19 Pratt, “Family Record.” Belinda indicates that Brigham Young and Erastus Snow were the only witnesses of the sealing at Snow’s house, probably kept secret because she may not yet have been legally divorced from her first husband Benjamin Abbott Hilton. Belinda Marden Pratt, “Autobiographical Sketch,” February 17, 1884, 1–7; Belinda Marden Pratt Papers, LDS Church Archives.


20 Nauvoo Temple Sealings, February 6, 1846, LDS Church Archives; and Divorce Certificate, March 5, 1853, Mary Ann Pratt Smith from Parley Parker Pratt, Brigham Young Papers, LDS Church Archives.


22 Compare "Kingdom of God" in The Essential (1-14) with A Voice of Warning as published in New York in 1837 and then with the editions published in Manchester, 1841; New York, 1842; Nauvoo, 1844; Edinburgh, 1847; and Liverpool, 1852 and 1854.


Brief Notices

“A Historical Overview of the Mormons and Their Clothing, 1840–1850” by Carma de Jong Anderson (Ph.D. diss., Brigham Young University, 1992)

Anderson’s pioneering work on Mormonism’s material culture was written to provide historical clothing information for “producers for stage and film, sculptors and graphic artists” (ix).

The study’s importance, however, extends beyond that increasingly significant but small cadre. Detailed, well-documented, and copiously illustrated, Anderson’s explication of footwear, waistcoats, shawls and outerwear, trousers, aprons, coveralls, and accessories won her the 1992 Reese Award for the best dissertation in Mormon history. Interesting history this is, too, furnishing a new perspective on the identities of early Church members, many of whom literally wore on their sleeves or hats or shoes clear indications of their national origins, occupations, and socio-economic ranks.

Anderson searched out, measured, and photographed clothing in private and museum collections; studied folk art, paintings, engravings, and photographs; and consulted contemporary written descriptions, store ledgers, advertisements, and costume books. The wealth of information she garnered brings richer texture to the record of the daily lives of the Saints. Women spent every spare moment knitting so their families could have inexpensive stockings. Paunchy men used whalebone stays in their vests to preserve the tightly sculptured look. The Hancock family, each possessing only one tow shirt or dress, dejectedly left behind their season’s crop of flax when they fled Missouri. A young Norwegian American, Goudy Hogan, saw Joseph Smith in his light-colored linen coat, noted “a small hole in each elbow of his coat sleeve,” and concluded “that he was not a proud man” (128).

Anderson cogently observes: “As the fields of sociology and psychology have explored the impact of multiple environments on human life, the importance of our most intimate environment, our clothing, has become more apparent” (xiv).

—Jill Mulvay Derr

Follow the Living Prophet by Brent L. Top, Larry E. Dahl, and Walter D. Bowen (Bookcraft, 1993)

Whether for those who willingly listen or for those who are confused by some alternative voices, this timely and significant book
builds a careful case for obedience to the living prophets. Based upon thorough research in Church government and doctrine, *Follow the Living Prophet* deals with such topics as the responsibilities of the presiding quorums in administering and governing the Church, succession in the Presidency, general conference, living oracles and the standard works, and the principles of counsel and common consent. Other chapters trace patterns of revelation and apostasy and emphasize the crucial need for a listening ear.

Without being ponderous, the book handles weighty matters in clear and inviting language that serves to frame, order, and situate abundant quotations from scripture and from Church leaders. Indeed, the authors intend that their own voices should recede so that those of the Brethren assume the foreground: "It is more important to us that the reader know what they teach and feel than what we think about the matter" (ix).

This book weaves together a remarkable collection of statements from the prophets, seers, and revelators of the restored Church. The consistency and unanimity of these statements is compelling. I found myself drawn especially to the discussion of *unanimity*. Several pages (61–63) explicate the settled and vital principle that all decisions of the presiding quorums "must be by the unanimous voice of the same" (D&C 107:27).

Using as its point of departure the story of Arabella Smith's courage and commitment during the Hole-in-the-Rock saga, the final chapter, "Our Future Safety," is a forceful coda. The book's central theme is also reinforced by six landmark addresses provided in the appendixes. These addresses—by Harold B. Lee, Spencer W. Kimball, J. Reuben Clark, Marion G. Romney, Boyd K. Packer, and Gordon B. Hinckley—comprise one-fifth of the volume.

*Follow the Living Prophets* is a valuable source book for all members of the Church. It is a handbook for survival through obedience to those whom the Lord has chosen and set in place.

—Lucile C. Tate

*Les Mormons* by Massimo Introvigne (Brepols, 1991)

With their opinions influenced by Pierre Benoît’s somewhat historical 1921 novel, *Le Lac Salé*, many speakers of French have had a very limited view of Mormonism. In *Les Mormons*, Massimo Introvigne acknowledges there are widespread and inaccurate perceptions of Mormons that attribute to them a polygamous life-style yet in our day. He states that his intent is to provide a factual and objective view of who the Mormons really are, as well as a clear view of the origins and evolution of their church and religion.

In addition to an apparent in-depth exposure to a broad array of written sources, the author by his own claim made numerous trips to Utah as well as to Missouri, meeting with various Mormon splinter
brief notices

Introvigne cites Mormonism in his introduction as the most important of the "alternative religions" established during the past two hundred years. He supports this contention by the extent and objectivity of his coverage. He has sections on the doctrine and history of Mormonism as well as an anthology of Mormon writings. In addition he provides an overview of Mormon fine arts, with brief looks at architecture, sculpture, painting, literature, and music. He rounds out the work with sections on the spiritual life-style of Mormons, a sociological profile, and a discussion of the organization of the LDS community.

Readers of French who wish to experience an objective assessment of Mormonism written by a non-Mormon will enjoy Les Mormons, probably the most in-depth and the least biased outsider's view published to date in the French language.

—Michael D. Bush
Inscription on a coffin. Reading from the middle to the left, the father of the girl is identified as a priest in the Egyptian religion of the time. Reading from the middle to the right, the girl's mother is said to be the Lady of the House and beloved of her husband. Courtesy of BYU Egyptian Archaeological Project.
Mormon Bibliography 1992

Ellen M. Copley

INTRODUCTION

The Mormon bibliography for 1992 is a selective bibliography of publications about Mormons and Mormonism. Although every attempt has been made to include all aspects of Mormonism, we have purposely excluded some types of items. For instance, newspaper articles and articles published in the official magazines of The Church of Jesus Christ of Latter-day Saints are well indexed by the Church itself and are not reiterated here. However, the individual poems, short stories, and other such works from these official magazines have been retained and are listed in the arts and literature section of the bibliography. The arts and literature section also includes every item of this kind which was written by a Mormon author, regardless of the content, with the exception of critical essays. The other sections (and the critical essays in the arts and literature section) include only articles and books written with a specific Mormon focus and theme.

As do compilers of any bibliography, of course, we constantly fear not knowing of a publication and therefore leaving it out. Readers who know of publications that should have been included in this Mormon bibliography are asked to contact either Ellen Copley or Scott Duvall, Department of Special Collections and Manuscripts, 4040 HBLL, Brigham Young University, Provo, Utah, 84602. We will include those publications in the 1993 Mormon bibliography.

This bibliography begins with a list of abbreviations and is broadly organized into the following sections: Arts and Literature, Bibliography, Biography and Autobiography, Contemporary Issues, Doctrine and Scripture, History, and Inspiration. The works are listed alphabetically by author within each section.
LIST OF ABBREVIATIONS

The following abbreviations are used for Mormon-content periodicals and anthologies that have been analyzed by chapter.

Mormon-content Periodicals

**AMCAP**


**BH**

*Beehive History* 18 (1992). Published annually by the Utah State Historical Society, Salt Lake City. Issue was dedicated to Utah's governors; included are those whose descriptions most clearly indicate they were Mormon.

**BYU Studies**

*BYU Studies* 32 (1992). Published quarterly by Brigham Young University, Provo, Utah.

**BYU Today**

*BYU Today* 46 (1992). Published six times a year by Brigham Young University, Provo, Utah. Includes feature articles, news items, and columns.

**CC 2 (1991)**


**CC 3 (1992)**


**Dialogue**


**Ensign**

*Ensign* 22 (1992). Published monthly by The Church of Jesus Christ of Latter-day Saints, Salt Lake City.

**Exponent II**

*Exponent II* 16-17 (1992). Published quarterly by Exponent II, Inc., Arlington, Massachusetts. No official connection with the LDS Church. Issue 4 of volume 16 and issue 1 of volume 17 are the only 1992 issues.

**Inscape**


**Insight**

<table>
<thead>
<tr>
<th>Publication</th>
<th>Description</th>
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<tbody>
<tr>
<td><strong>JBOMS</strong></td>
<td><em>Journal of Book of Mormon Studies</em> 1 (Fall 1992). Published semiannually by the Foundation for Ancient Research and Mormon Studies (F.A.R.M.S.), Provo, Utah.</td>
</tr>
<tr>
<td><strong>JMH</strong></td>
<td><em>Journal of Mormon History</em> 18 (1992). Published semiannually by the Mormon History Association, Provo, Utah.</td>
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<tr>
<td><strong>Latter-day Digest</strong></td>
<td><em>Latter-day Digest</em> 1 (1992). Published by the Latter-day Foundation for the Arts, Orem, Utah. Only one issued was published in 1992.</td>
</tr>
<tr>
<td><strong>LDS Entertainment</strong></td>
<td><em>LDS Entertainment Magazine</em> 1 (1992). Published by SoWright Publications, Inc., Payson, Utah. Only four issues were published.</td>
</tr>
<tr>
<td><strong>L&amp;B</strong></td>
<td><em>Literature and Belief</em> 12 (1992). Published annually by the Brigham Young University College of Humanities, Provo, Utah.</td>
</tr>
<tr>
<td><strong>Marca</strong></td>
<td><em>Marca Hispánica</em> 3 (1992). Published annually by the Brigham Young University Spanish and Portuguese Department, Provo, Utah.</td>
</tr>
<tr>
<td><strong>Nauvoo Journal</strong></td>
<td><em>Nauvoo Journal</em> 4 (1992). Published semiannually by the Early Mormon Research Institute, Hyrum, Utah. Contains a continuing article entitled &quot;List of Church Members in Nauvoo, IL taken from 1842 Census.&quot;</td>
</tr>
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New Era  


RV  

*Restoration Voice*, nos. 81–86 (1992). Published six times a year by Cumorah Books, Independence, Missouri. No official connection with the RLDS Church. Many articles are reprints from the *Saints Herald*. Included in this bibliography are only articles of a historical nature pertaining to the period of time before the separation of the LDS and RLDS churches.

Saints Herald  


Schrift  

*Schrift* 1 (1992). Published annually by the Brigham Young University Germanic and Slavic Languages Department, Provo, Utah.

Sunstone  

*Sunstone* 16 (1992). Published six times a year by the Sunstone Foundation, Salt Lake City.

This People  


UHQ  

*Utah Historical Quarterly* 60 (1992). Published quarterly by the Utah State Historical Society, Salt Lake City.

Witness  


WRI  


ZA  


Zarahemla  


ZR  

Anthologies Analyzed by Chapter

**ATW**

**BAF**

**DBM**

**DLLS**

**DS**

**FH**

**FL**

**FR**

**HATTW**

**LFS (1991)**

**LFS (1992)**
MC


Morality


NMH


RG


W&A


WFF


WSC


ARTS AND LITERATURE

Novels, short stories, plays, poetry, critical essays, personal essays, music, and articles about the arts written by or about Mormons.

Art


Mormon Bibliography 1992


Critical Essays


———. "How Others See Us, How We See Ourselves." This People 13 (Holiday 1992): 77-84.

———. "Mormon Women Speak." This People 13 (Summer 1992): 59-61.


Jeffery, Duane E. "How Mormons View the Universe." This People 13 (Summer 1992): 22.


Drama


Howe, Susan Elizabeth. "Voices of the Sisters." In WSC, 35-52.


Novels

———. *Children’s fiction*


**Personal Essays**


Bell, Elouise. "‘Peace, Be Still.’" In *WSC*, 19-32.


Cannon, Ann Edwards. “Where Have All the Plastic Grapes Gone?” This People 13 (Fall 1992): 75.


Cutler, Ed. “Glad Tidings from Cumorah.” In RG, 91-97.


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