# Religion, Science, and Art: Elements of the Gospel of Truth

Musings and Ramblings by C. Randall Nicholson

 One of my all-time favorite cartoons (printed, not animated) is very simple. It’s only one panel, it isn’t particularly funny, and the artwork is nothing to write home about. But it’s one of my favorites because its caption contains, in my opinion, three of the most profound words that have ever been written (perhaps second only to “I love you” in the days before those words were cheapened by overuse and misuse). In the picture, a cute cartoon version of God and one of his angels are standing on the edge of a cloud and looking down, presumably at the earth. God has a dumbfounded look on his face and in the caption he’s saying to the angel, “Science *versus* religion?”

 Those three words succinctly convey a sense of the proper relationship between religion and science, and motivate one to continue pondering long after they’ve been read. As I pondered, I came to think that they’re more closely interrelated, and the latter more important, than many Latter-day Saints and other believers probably realize. I then decided to expand my horizons even beyond that, and consider how art fits into the picture (pun not intended). I’m going to share my thoughts, which are mostly the thoughts of smarter people synthesized into a framework that I like. Obviously I write in no official capacity but nonetheless I apologize in advance for any false doctrine I may inadvertently perpetuate. I don’t intend to be the next Cleon Skousen.1

 I may as well confess that in my sinful youth I drew my *own* cartoon (now lost, fortunately) called “Why Religion is Better than Science”. It featured an angry guy yelling, “I used to think that when I died, at least my descendants would live on, and if they all died, at least the human race would live on, and if they all died, at least the Earth would go on, and if it was destroyed, at least the universe would go on, and now you’re telling me that’s NOT TRUE?” In front of him, a complacent scientist in glasses and a lab coat said “Yeah, pretty much.” But behind the scientist, a very smug-looking LDS missionary holding a set of scriptures said “Wanna bet?” It was obvious which route the angry guy was going to prefer, and not just because he had a beard that made him kind of look like a young Ken Ham.2

But like everyone else who does so, I was wrong to pit them against each other. Elder Richard G. Scott explained, “There are two ways to find truth – both useful, provided we follow the laws upon which they are predicated. The first is the scientific method. It can require analysis of data to confirm a theory or, alternatively, establish a valid principle through experimentation… The best way to find truth is simply to go to the origin of all truth and ask or respond to inspiration. For success, two ingredients are essential: first, unwavering faith in the source of all truth; second, a willingness to keep God’s commandments to keep open spiritual communication with Him… What have we learned from the scientific approach to discovering truth? An example will illustrate. Try as I might, I am not able, even in the smallest degree, to comprehend the extent, depth, and stunning grandeur of what our holy Heavenly Father, Elohim, has permitted to be revealed by the scientific method.”3

## **The Gospel**

I’ve repented since then and I like to think I have a better understanding now. To begin with, it should be remembered that the gospel and the Church aren’t synonymous. Elder Donald L. Hallstrom has reminded us, “Sometimes we use the terms *gospel* and *Church* interchangeably, but they are not the same. They are, however, exquisitely interconnected, and we need both.”4 Years earlier, Elder Ronald E. Poelman explained, “The gospel is the divine plan for personal, individual salvation and exaltation. The Church is divinely commissioned to provide the means and resources that implement this plan in each individual’s life.”5 (He differentiated them so explicitly, in fact, that his talk was rewritten and rerecorded with drastically softened wording, out of fear that polygamous “Mormon” sects would cite it to justify their practice by claiming they followed the gospel over the Church.)6

The word “gospel” means “good news”, and as such, its primary focus is the Atonement of Christ. Joseph Smith taught, “The fundamental principles of our religion are the testimony of the Apostles and Prophets, concerning Jesus Christ, that He died, was buried, and rose again the third day, and ascended into heaven; and all other things which pertain to our religion are only appendages to it. But in connection with these, we believe in the gift of the Holy Ghost, the power of faith, the enjoyment of the spiritual gifts according to the will of God, the restoration of the house of Israel, and the final triumph of truth.”7 The most significant of these appendages probably include “the first principles and ordinances of the Gospel [which] are: first, Faith in the Lord Jesus Christ; second, Repentance; third, Baptism by immersion for the remission of sins; fourth, Laying on of hands for the gift of the Holy Ghost.”8

Beyond these and other doctrines, however, the gospel ultimately encompasses *all* truth, no matter the source. Elder Neal A. Maxwell wrote that “the gospel isn't simply another building block to be fitted into the tower of truth; it is the tower of truth itself”9, and Elder James E. Talmage said that “within the gospel of Jesus Christ there is room and place for every truth thus far learned by man, or yet to be made known.”10 Not all truth has been revealed or discovered, and the Church doesn’t have a monopoly on that which has. Joseph Smith taught, “Have the Presbyterians any truth? Yes. Have the Baptists, Methodists, etc., any truth? Yes. They all have a little truth mixed with error. We should gather all the good and true principles in the world and treasure them up, or we shall not come out true ‘Mormons.’”11 I take this very literally and don’t hesitate to draw wisdom from leaders and theologians of other faiths, even non-Christian ones, if it’s compatible with what I already know of the gospel.

Most Latter-day Saints already apply this same principle to secular learning, as they know that we are commanded to “seek ye out of the best books words of wisdom; seek learning, even by study and also by faith”.12 This principle has been reiterated many times in General Conference and elsewhere.13 The conclusion I’ve come to is that secular learning may be incidental to the *Church*, but it’s essential to the *gospel*. I started toward this conclusion when I read one of his final memoirs of President Hugh B. Brown. In it he praised education, research and free thinking, and wrote near the end, “Peace and brotherhood can be achieved when the two most potent forces in civilization – religion and science – join to create one world in its truest and greatest sense.”14

That caught my attention because it’s a sentiment rarely expressed by General Authorities – at least in those explicit words. Of course, the context makes it clear that this is his personal opinion, but it’s one I happen to agree with wholeheartedly. And I think it *is* doctrinal if we consider religion and science to be two branches of the gospel, which encompasses all truth. Many church leaders have expressed the sentiment that the spread of the gospel is the only path to world peace and brotherhood.15 What President Brown wrote may appear at first glance to be a variation on that theme, but because the gospel and the Church are not the same thing and the gospel encompasses all truth, I think it’s actually the exact same thing.

## **Religion**

 The Church – “religion” – is, as God’s appointed vehicle to teach of Christ and administer the ordinances of the gospel. It’s crucial to our salvation and therefore more important than science or art. Presumably we once knew most or all of its teachings, but forgot them when we passed through the veil before our births – yet “[i]t is impossible for a man to be saved in ignorance.”16 Therefore, God has to make sure we relearn what we’ve forgotten, and the only way to do that is to teach us through prophets, scriptures, and personal revelation from the Holy Ghost which both confirms and augments the former two. This is knowledge that God freely gives us because it’s crucial that we get it right.

 Of course, this doesn’t mean that no study or effort on our part is necessary; in fact, quite the opposite is true. Elder Marion D. Hanks wrote, “No one knows anything about Christ’s work simply by being born a member of the Church, and often he knows little about it after years of unmotivated exposure in meetings or classes. He must learn. And learning involves self-investment and effort. The gospel should be studied ‘as carefully as any science.’ The ‘literature of the Church’ must be ‘acquired and read.’ Our learning should be increased in our spare time ‘day by day.’ Then as we put the gospel truth to work in daily life, we will never find it wanting. We will be literate in the most important field of knowledge in the universe, knowledge for lack of which men and nations perish, in the light of which men and nations may be saved.”17

 Nor do we know everything even in this field of study, for it is revealed to us “line upon line, precept upon precept, here a little and there a little.”18 “We believe all that God has revealed, all that He does now reveal, and we believe that He *will yet reveal* many great and important things pertaining to the Kingdom of God [emphasis added].”19 Human beings are quite incapable of receiving or even understanding all revelation at once. Alfred Edersheim wrote, “When the infinite fulness is poured forth, as it ever is in Christ, it is not the oil that is stayed, but the vessels which fail.”20 Elder Jeffrey R. Holland paraphrased this to explain that “it is not the oil’s fault if there is some loss because finite vessels can’t quite contain it all.”21 Hence the inevitable limitations on our understanding, as individuals and as a church, should not be perceived as limitations of the gospel.

 Such limitations sometimes allow even the best of us to make theological mistakes. From 1847 onward, church leaders at the highest levels taught for over a century that people of African descent were under the “curse of Cain”, based on a Protestant doctrine that had been invented to justify slavery and was now used by Latter-day Saints as an explanation for the mysterious priesthood ban on black men that originated sometime that year.22 Brigham Young taught on a few occasions that Adam was God the Father23, and these statements are not only difficult to reconcile with established LDS doctrine but have been rejected by later prophets.24 The personal writings of Elders Bruce R. McConkie and Joseph Fielding Smith declare in no uncertain terms that organic evolution is incompatible with our religion25, notwithstanding the Church itself has never taken a position on it.26

 Religion has an often-overlooked similarity with science in this regard. Professor Stephen E. Robinson wrote, “Anomalies occur in every field of human endeavor, even in science. An anomaly is something unexpected that cannot be explained by the existing laws or theories, but which does not constitute evidence for changing the laws and theories. An anomaly is a glitch... A classic example of an anomaly in the LDS tradition is the so-called ‘Adam-God theory.’... [W]e simply set it aside... This is not a matter of believing it or disbelieving it; we simply don't know what ‘it’ is. If Brigham Young were here we could ask him what he actually said and what he meant by it, but he is not here.”27 Speaking of such issues in general, famous LDS chemist Henry Eyring wrote, “There are all kinds of contradictions that I don’t understand, but I find the same kinds of contradictions in science, and I haven’t decided to apostatize from science.”28

 Why is it okay for God to allow such anomalies and mistakes, if we rely on church leaders for the crucial knowledge of salvation? Simply put, because ours isn’t a religion of blind faith, and we no person is dependent on another to learn the truth for him or herself. In a frequently reprinted talk given on assignment from the First Presidency, President J. Reuben Clark, Jr. explained, “The very words of [Doctrine and Covenants 68:2-4] recognize that the Brethren may speak when they are not ‘moved upon by the Holy Ghost,’ yet only when they do so speak, as so ‘moved upon,’ is what they say Scripture… **We can tell when the speakers are ‘moved upon by the Holy Ghost’ only when we, ourselves, are ‘moved upon by the Holy Ghost.’ In a way, this completely shifts the responsibility from them to us to determine when they so speak.”29**

 **Henry Eyring, in a continuation of his** quote above, said “The Lord uses imperfect people. He often allows their errors to stand uncorrected. He may have a purpose in doing so, such as to teach us that religious truth comes forth… in a process of sifting and winnowing similar to the one I know so well in science.”30 **Modern revelation is a fundamental precept of the Church, and *every* member is entitled to it. God wants us to discover for ourselves the truth of doctrines and principles that He gives us through the scriptures and prophets. Hence one of the most frequently quoted scriptures in all Mormondom reads, “**And when ye shall receive these things, I would exhort you that ye would ask God, the Eternal Father, in the name of Christ, if these things are not true; and if ye shall ask with a sincere heart, with real intent, having faith in Christ, he will manifest the truth of it unto you, by the power of the Holy Ghost. And by the power of the Holy Ghost ye may know the truth of all things.”31

How does one attain the faith in Christ necessary to ask in the first place? Simple – by a procedure that’s almost scientific in nature (though not exactly, because it can’t be probed or falsified by others). “But behold, if ye will awake and arouse your faculties, even to an experiment upon my words, and exercise a particle of faith, yea, even if ye can no more than desire to believe, let this desire work in you, even until ye believe in a manner that ye can give place for a portion of my words. Now, we will compare the word unto a seed. Now, if ye give place, that a seed may be planted in your heart, behold, if it be a true seed, or a good seed, if ye do not cast it out by your unbelief, that ye will resist the Spirit of the Lord, behold, it will begin to swell within your breasts; and when you feel these swelling motions, ye will begin to say within yourselves—It must needs be that this is a good seed, or that the word is good, for it beginneth to enlarge my soul; yea, it beginneth to enlighten my understanding, yea, it beginneth to be delicious to me.”32

## **Science**

 Though imperfect people within the Church have all too often been derisive or antagonistic toward science33, the gospel of truth incorporates it seamlessly. Brigham Young taught, “I am not astonished that infidelity [unbelief] prevails to a great extent among the inhabitants of the earth, for the religious teachers of the people advance many ideas and notions for truth which are in opposition to and contradict facts demonstrated by science, and which are generally understood… In these respects we differ from the Christian world, for our religion will not clash with or contradict the facts of science in any particular. You may take geology, for instance, and it is a true science; not that I would say for a moment that all the conclusions and deductions of its professors are true, but its leading principles are; they are facts - they are eternal; and to assert that the Lord made the earth out of nothing is preposterous and impossible. God never made something out of nothing…”34

 Latter-day Saints are right to prioritize science below religion, but I think we usually underestimate its importance to the gospel. It’s no coincidence that learning and technology often stagnated or even regressed during the Dark Ages of apostate Christianity, that the Renaissance began during roughly the same time period as the Protestant Reformation, or that the restoration of the gospel was accompanied not only by the establishment of the Church but also an exponential increase in scientific accomplishment and accompanying prosperity that hasn’t let up since. Economist Angus Maddison wrote, “Since 1820, modern economic growth has been very rapid by historical standards, and quantitative indicators have been relatively abundant.”35 (Of course, there are several underlying factors in all these things and I don’t mean to commit the “false cause” fallacy by assuming that the religious and scientific aspects must be logically linked. We take that as a matter of faith and spiritual knowledge.)

In no previous dispensation has the gospel been able to spread and sustain itself very far without its doctrines being corrupted; today’s technology has been a crucial factor in making that possible. Elder L. Tom Perry explained that “it would become increasingly difficult for the Apostles to reach all the members of the Church and personally admonish them to live the gospel. Thus, the future would bring greater reliance on technology to carry the gospel message to the worldwide Church… Technology has blessed us with many new innovations to spread the message of the gospel through satellite systems, our own network Web site, television, radio, as well as the written text in our magazines and newspaper. All of these add to our delivery systems, which greatly increase our ability to receive the messages that are delivered.”36

 Science also blesses and enhances the lives of the great number of God’s children who have been, are, and will live during this dispensation. In 1999 President Gordon B. Hinckley reflected that notwithstanding the unprecedented violence in the world, “in a larger sense this has been the best of all centuries... The life expectancy of man has been extended by more than 25 years. Think of it. It is a miracle. The fruits of science have been manifest everywhere... This has been an age of enlightenment. The miracles of modern medicine, of travel, of communication are almost beyond belief.”37 With some exceptions – the most famous of which are undoubtedly Philo Farnsworth38 and Henry Eyring39 – the inventors and scientists who made these advances possible, both to spread the gospel and to bless God’s children, have not been Latter-day Saints. Thus we see that we aren’t the only ones privileged to have crucial roles in God’s plan for this earth.

Religion explores the spiritual world, and because this knowledge is crucial to our salvation, God reveals it directly to us when we seek for it. In science, which explores the physical universe, He can allow us greater autonomy in learning and discovering for ourselves, and this also helps account for the many contributions of non-Mormons. Henry Eyring wrote, “Now I think there are plenty of times when God probably doesn’t think it necessary to get involved. For instance, I’ve often been asked whether I think God helps me with my science. That is, does God steer human efforts such as scientific study? I don’t think God cares very much about reaction rate theory. He’s known it all along. All he does is in his mind reach out his hand and pat me on the head and say, ‘That’s a nice little fellow. It’s nice that you try.’ I think he cares about how I treat my fellowmen and is not very much impressed with the rest. On his scale, as Creator of the universe, what I have done couldn’t be very impressive. After all, he can do integral calculus in his head.”40

Though I must yield to Brother Eyring on matters of chemistry, I respectfully disagree with his characterization of God. I believe any lack of involvement on His part is not from indifference, but because He wants us to grow and develop our own mental faculties. While our efforts are impossibly clumsy and weak from His perspective, still I imagine Him clapping His hands and shedding a few tears of joy every time we figure out something new. I believe some of President Dieter F. Uchtdorf’s remarks in regard to sin also apply in this context: “Now, brethren, compared to the perfection of God, we mortals are scarcely more than awkward, faltering toddlers. But our loving Heavenly Father wants us to become more like Him, and, dear brethren, that should be our eternal goal too. God understands that we get there not in an instant but by taking one step at a time.”41

 For as Brigham Young intimated, giving geology as an example, science extends even beyond mortality to take on eternal significance. Joseph Smith taught the biblical principle that “you have got to learn how to make yourselves Gods”42, and while he and other prophets have rightly focused mainly on the Atonement and other doctrines as a means to this end, God knows *everything* and “all things unto [Him] are spiritual”43. Our aspiration as Latter-day Saints is to someday attain this same state of being, and learning about this universe during our mortal sojourn through it gives us a head start. “Whatever principle of intelligence we attain unto in this life, it will rise with us in the resurrection. And if a person gains more knowledge and intelligence in this life through his diligence and obedience than another, he will have so much the advantage in the world to come.”44

 Henry Eyring wrote, “Most scientists, I believe, would not presume to say that a thing may not be because they do not understand it, nor would they deny the validity of the spiritual experiences of others because they have been without such experiences themselves. I am now going to venture to say that science has rendered a service to religion. The scientific spirit is a spirit of inquiry, a spirit of reaching out for truth. In the final analysis, this spirit is the essence of religion. The Savior said, ‘Ask, and it shall be given you; seek, and ye shall find; knock, and it shall be opened unto you’” (Matthew 7:7). The scientist has, in effect, reaffirmed this great fundamental laid down by the Master, and in doing so has given a new impetus to religion.”45

## **Science to Support Religion**

 Scholarship in defense of religion is known as “apologetics” – from the Greek word “apologia”46, the word that Paul used when he admonished the Saints to “be ready always to give an answer to every man that asketh you a reason of the hope that is in you…”47 Apologetics exist for every sizable religious tradition as well as atheism. C. S. Lewis, one of the most prolific and well-known Christian apologists of all time, wrote “To be ignorant and simple now – not to be able to meet the enemies on their own ground – would be to throw down our weapons, and to betray our uneducated brethren who have, under God, no defense but us against the intellectual attacks of the heathen. Good philosophy must exist, if for no other reason, because bad philosophy needs to be answered.”48 Austin Farrer wrote of him, “Though argument does not create conviction, lack of it destroys belief. What seems to be proved may not be embraced; but what no one shows the ability to defend is quickly abandoned. Rational argument does not create belief, but it maintains a climate in which belief may flourish.”49

 Elder Neal A. Maxwell, who cited Farrer’s quote more than once, was an avid supporter of LDS apologetics and scholarship; so much so that BYU has honored him with the Neal A. Maxwell Institute for Religious Scholarship.50 He wrote, “There will be a convergence of discoveries (never enough, mind you, to remove the need for faith) to make plain and plausible what the modern prophets have been saying all along. Latter-day Saint scholars will show the way by being able to read firsthand such ancient texts rather than relying on secondary scholarship, as was the case earlier in this dispensation. We will be able to reach such texts through a Latter-day Saint lens rather than relying solely upon able Protestant and Catholic scholars, of whom it is unfair to expect full sensitivity to the fulness of the gospel's doctrines and ordinances.”51

 This prophecy – for I believe it was indeed a prophecy – has already come to pass in large measure. The Book of Mormon is more plausible as an authentic history now than it has ever been, thanks to at least three things – correlations with Middle Eastern and Mesoamerican geography52, Hebraic linguistic patterns in the text53, and items that weren’t previously known from the pre-Columbian Americas (such as cement54, silk-like material55, barley56, gardens57, and possibly horses58) or the Arabian Peninsula (such as steel59, a lush oasis on the southern coast60, and a burial place called NHM61). The need for faith still hasn’t been removed, however, and never will be as long as the Church’s critics continue to move the goalposts of satisfactory evidence.62 Here secular learning provides an *affirmation* of belief, but does not *create* it.

 This is undoubtedly as God intends it. Revelation is the appropriate channel for religion and human investigation is the appropriate channel for science. Elder Dallin H. Oaks, an intellectual in his own right, warned that “Latter-day Saints should strive to use both science and religion to extend knowledge and to build faith. But those who do so must guard against the significant risk that efforts to end the separation between scientific scholarship and religious faith will only promote a substandard level of performance, where religion and science dilute one another instead of strengthening both. For some, an attempt to mingle reason and faith can result in irrational scholarship or phony religion, either condition demonstrably worse than the described separation.”63 Years earlier he succinctly summarized the issue: “When attacked by error, truth is better served by silence than a bad argument.”64

 Such extremes of “irrational scholarship” can easily be seen in the “creation science” and “intelligent design” movements, which run roughshod over established scientific facts and principles to establish their predetermined hypothesis.65 Within the LDS tradition specifically, perhaps more notable is the work of pseudo-scholars like Rodney Meldrum, who twist genetic and archeological findings to support an untenable hypothesis for Book of Mormon geography66, or lay members who assume that every Maya or Olmec ruin is the direct remains of a Nephite or Jaredite city.67 On the other extreme, “phony religion”, I suspect that science itself is not to blame so much as the materialist worldview that often comes attached to it. There are some professing Christians today who relegate all spiritual phenomena, from the scriptures to the divinity of Christ Himself, to the realm of the abstract, relative, and meaningless.68

 Still, it should be noted that LDS apologetics are generally of high quality. Evangelical scholars Carl Mosser and Paul Owen noted that “currently there are (as far as we are aware) no books from an evangelical perspective that responsibly interact with contemporary LDS scholarly and apologetic writings… In recent years the sophistication and erudition of LDS apologetics has risen considerably while evangelical responses have not.”69 Bridget Jack Meyers remembered that “I adamantly searched the evangelical web sites for responses to their LDS critics and came up almost entirely empty-handed. It had reached the point where LDS apologists weren’t even taking the evangelicals seriously anymore… [It] was all very intimidating to me as a teenager trying to get a handle on why Mormonism was not true.”70

 Flawed scientific views put forth by church leaders show that they are fallible humans but don’t invalidate their spiritual wisdom. For example, according to President Joseph Fielding Smith’s grandson, “He reasoned that because the atonement that Christ worked out on this earth applies to all the creations of the Father, that our getting to other worlds and discovering that they had the same Savior and the same plan of salvation would dispense with the necessity of our accepting the gospel on the basis of faith. To dramatize the point he said, ‘I don't even think the Lord will let men get to the moon.’… The illustration he used to dramatize his point has since proven to be in error. It, however, has nothing to do with the point he was making. To dismiss everything else he said on the basis of one faulty illustration is, I would suggest, a far greater error and may frankly be grounds to question whether those saying it deserve credence, not whether Joseph Fielding Smith does.”71

 Perhaps the wisest course to take in supporting religion with science, particularly for those in positions of authority, is to illustrate concepts with parallels and possibilities rather than trying to “prove” anything. Along these lines, then-Elder David O. McKay said at a funeral, “Among the generalizations of science, evolution holds foremost place. It claims: ‘Man is a creature of development; that he has come up through uncounted ages from an origin that is lowly.’ Why this vast expenditure of time and pain and blood? Why should he come so far if he is destined to go no farther? A creature which has traveled such distances, and fought such battles and won such victories deserves, one is compelled to say, to conquer death and rob the grave of its victory. Darwin said...‘Believing as I do that man in the distant future will be a far more perfect creature than he now is, it is an intolerable thought that he and all other sentient beings are doomed to complete annihilation after such long-continued, slow progress. To those who fully admit the immortality of the human soul, the destruction of our world will not appear so dreadful.’”72

 Here, just as President Smith’s spiritual reasoning was enriched by the moon example but wasn’t invalidated when that example proved unfeasible, Elder McKay’s teaching would remain true and powerful even if evolution were to someday be rejected by science. He wasn’t citing evidence for the spiritual from the physical, but rather drawing a parallel. Because God is a God of order and consistency, it makes sense that such parallels abound between the spiritual and physical worlds if only we know where to look for them. Physical or textual evidences for the Book of Mormon, in turn, should be (and usually are) viewed not as “proofs” but as demonstrating its viability as an authentic text.73 This prevents them from becoming a sandy foundation for faith, which is prone to being washed away with new and less favorable advances in archeology or linguistics.

 Henry Eyring summarized the issue thus: “If I take everything I know from the scriptures and the prophets, and everything I know from science, and reconcile them, I still have as many unanswered questions as I have ones with answers. No intellectual approach nails down everything. In this life, there will always be unanswered questions. In fact, each answer seems to raise more questions. That’s the way it is in science, too, and I don’t apostatize from science for that reason. Actually, that’s what makes science, and religion, fun. Faith is feeling good about myself, feeling good about God, and muddling along after truth as best I can. Finally, perhaps, a believer never does more disservice to religion than to support the truth with bad arguments. The listener spots the obvious errors, becomes impatient, often ‘throws out the baby with the bath,’ and turns away, even from true religion.”74

## **Proper Spheres of Influence**

 In speaking of “irrational scholarship” and “phony religion”, Elder Oaks indicated that religious and scientific knowledge each have their proper time and place. While they are ultimately compatible within the gospel, because truth is truth regardless of the source, we should keep this in mind and not be too impatient in eliminating contradictions. Henry Eyring wrote, “There is no conflict in the mind of God, but often there is conflict in the minds of men. Through the eternities, we are going to get closer and closer to understanding the mind of God; then the conflicts will disappear.”75 In the meantime, though religion and science can coexist in our minds, the former should stay out of the laboratory and the latter should stay out of the chapel. Dr. David H. Bailey has warned that “the religion that is married to science today will be a widow tomorrow.”76

In 1931, following a prolonged debate between Elders B. H. Roberts and Joseph Fielding Smith regarding the existence of pre-Adamite humans, the First Presidency issued a memo to all General Authorities which stated in part: “Upon the fundamental doctrines of the Church we are all agreed. Our mission is to bear the message of the restored gospel to the people of the world. Leave Geology, Biology, Archaeology, and Anthropology, no one of which has to do with the salvation of the souls of mankind, to scientific research... We can see no advantage to be gained by a continuation of the discussion... but on the contrary are certain it would lead to confusion, division and misunderstanding if carried further. Upon one thing we should all be able to agree, namely, that Presidents Joseph F. Smith, John R. Winder and Anthon H. Lund were right when they said: ‘Adam is the primal parent of our race.’”77

Religion has never been primarily concerned with the physical world. Elder James E. Talmage, a geologist, said “The opening chapters of Genesis, and scriptures related thereto, were never intended as a textbook of geology, archaeology, earth-science or man-science... We do not show reverence for the scriptures when we misapply them through faulty interpretation.”78 Fifty years later, Pope John Paul II expressed a similar sentiment: “The Bible itself speaks to us of the origin of the universe and its make-up, not in order to provide us with a scientific treatise, but in order to state the correct relationships of man with God and with the universe.”79 One of the many admirable traits I find in Catholicism is that, the Galileo incident notwithstanding80, it has embraced science like perhaps no other denomination. This open-mindedness toward Genesis dates back at least to St. Augustine, who cautioned that “in matters that are obscure and far beyond our vision... we should not rush in headlong and so firmly take our stand on one side that, if further progress in the search of truth justly undermines this position, we too fall with it.”81

Realizing that these and other scriptures don’t provide a literal account of the creation of earth and living things doesn’t make them “false” or “wrong”. A scientific discussion would only have confused Moses and all of the Bible’s readers until at least the nineteenth century, and distracted them from the points God was trying to make.82 The accounts we have communicate at least this many spiritual truths: that God created the heavens and the earth (regardless of how it was done), that God rests (and expects us to do the same by keeping the Sabbath holy), that human beings are created in the image of God (regardless of how it was done), that Adam and Eve are our first parents, that Satan is intent on ruining God’s plan but will never be able to, and that we live in a fallen world (hence the need for a Savior).83

The scientific aspects of these scriptures, therefore, are virtually irrelevant from the religious standpoint taken by the Church and its leadership. President Harold B. Lee reasoned, “Perhaps if we had the full story of the creation of the earth and man told to us in great detail, it would be more of a mystery than the simple few statements that we have contained in the Bible, because of our lack of ability to comprehend. Therefore, for reasons best known to the Lord, He has kept us in darkness. Wait until the Lord speaks, or wait until that day when He shall come, and when we shall be among the privileged either to come up out of our graves and be caught up into the clouds of heaven or shall be living upon the earth likewise to be so translated before Him. Then we shall know all things pertaining to this earth, how it was made, and all things that now as children we are groping for and trying to understand. Let’s reserve judgment as to the facts concerning the Creation until we know these things for sure.”84

 When religion forgets its place and attempts to dictate to science, the consequences on the faith of educated people cannot be overstated. Rachel Held Evans, author of *Evolving: Growing up in Monkey Town*, wrote “What we are searching for is a community of faith in which it is safe to ask tough questions, to think critically, and to be honest with ourselves. Unfortunately, a lot of young evangelicals grew up with the assumption that Christianity and evolution cannot mix, that we have to choose between our faith in Jesus and accepted science. I've watched in growing frustration as this false dichotomy has convinced my friends to leave the faith altogether when they examine the science and find it incompatible with a 6,000-year-old earth. Sensing that Christianity required abandoning their intellectual integrity, some of the best and brightest of the next generation made a choice they didn’t have to make.”85

 Latter-day Saints shouldn’t assume that our own culture is immune to similar problems. LDS sociologist Armand Mauss observed, “The pedagogical posture of the [Church Education System] has become increasingly anti‑scientific and anti‑intellectual, more inward looking, more intent on the uniqueness and exclusiveness of the Mormon version of the gospel as opposed to other interpretations, whether religious or scientific. Lesson manuals still occasionally take gratuitous swipes at scientists, intellectuals, and modernist ideas, which are blamed for jeopardizing students' testimonies. Non‑Mormon sources and resources are rarely used and highly suspect.”86 This is contrary to Joseph Smith’s philosophy of seeking out truth from many sources, and Brother Mauss warns that “If the Mormon institutional pasture is not big enough to accommodate its intellectuals, then it will not be able to accommodate its disillusioned fundamentalists, either.”87

 When science forgets its place, it becomes an entire worldview and pushes religion out of the picture, mutating into a dogmatic form of pseudo-religion known as scientism.88 Science itself, by definition, can do nothing to confirm or deny the existence of a Supreme Being. But adherents of scientism assume that because it’s so good at discovering knowledge, it’s the *only* method of discovering knowledge, and that anything beyond its scope doesn’t exist (atheism) or can’t be known (agnosticism). Yet the truthfulness of this worldview, likewise, either doesn’t exist or can’t be known. The statement “Only empirically verifiable propositions are valid” is not empirically verifiable, and thus invalidates itself. Personal revelation isn’t empirically verifiable either because it can’t be replicated under laboratory conditions or scrutinized by multiple people, but it is nonetheless very real for those who open their hearts to it.

 Scientism is the worldview pushed for by militant or “new” atheists.89 Though many of them are well-educated in both scientific and religious matters, their depth of understanding in the latter field leaves something to be desired. For example, Terry Eagleton wrote in a review of *The God Delusion*, “Imagine someone holding forth on biology whose only knowledge of the subject is the Book of British Birds, and you have a rough idea of what it feels like to read Richard Dawkins on theology.”90 Citing a multitude of examples, Daniel C. Peterson wrote in a review of *god is Not Great*, “The most outrageous assertions are made and you look in the back for any justification for them, nothing. You’ll go twenty, thirty pages without any kind of documentation whatsoever… In many cases, [Christopher] Hitchens is 180 degrees wrong. He is so far wrong that if he moved at all, he would be coming back toward right, but he does this constantly.”91

Though science’s ability to explain so many things is a relatively recent phenomenon, the basic concept of scientism probably dates back for as long as people have been able to think. It is mentioned, though obviously not by that term, in the Book of Mormon: “O that cunning plan of the evil one! O the vainness, and the frailties, and the foolishness of men! When they are learned they think they are wise, and they hearken not unto the counsel of God, for they set it aside, supposing they know of themselves, wherefore, their wisdom is foolishness and it profiteth them not. And they shall perish. But to be learned is good if they hearken unto the counsels of God.”92

## **A Working Relationship**

 With those difficulties and disclaimers, the obvious solution for many Latter-day Saints who don’t wish to inappropriately mingle the spheres of religion and science is to simply not worry about the science one too much. Most science can be accepted without difficulty, but that which raises questions with religious implications is placed on the shelf because, as they correctly point out, it isn’t important to our salvation. That’s the way their minds work and that’s okay. Nonetheless, many others see the world differently and need *some* sort of paradigm in which to let the two kinds of knowledge interact – even if they recognize, as they hopefully will, that not all of the apparent conflicts will disappear in mortality. To believe one thing on Sunday and another on the rest of the week is to live with cognitive dissonance and eventually, for many people, one sphere or the other must be rejected.93

 One apparent difficulty that arises here is that while religion has been forced to make concessions to science for centuries, science doesn’t seem to be under a similar obligation. Natural processes in and of themselves are sufficient to account for such things as the formation of planets and the diversity of life, and to insist that a direct Designer *must* have been necessary simply by virtue of their order and complexity is the logical fallacy known as “personal incredulity” (the debater finds something incomprehensible or hard to believe, in this case the sufficiency of natural processes; therefore he rejects it as untrue). When Napoleon asked astronomer Pierre-Simon Laplace why his book on the orbits of Saturn and Jupiter made no mention of God, Laplace is reputed by apocryphal sources to have answered, “*Je n’avais pas besoin de cette hypothèse-là* – I had no need of that hypothesis.”94

 Many believers point to gaps or anomalies in scientific knowledge, such as the origin of life or the cause of the Big Bang, as evidence for the necessity of God’s existence. This is highly illogical and unwise. It represents the fallacy of “appeal to ignorance” (if something cannot be disproven, then it must be true) and is prone to being disrupted by future discoveries – as it has many times in the past, since the day it was proven that the Greek god Helios did not pull the sun across the sky in his chariot.95 Charles Alfred Coulson wrote “There is no ‘God of the gaps’ to take over at those strategic places where science fails; and the reason is that gaps of this sort have the unpreventable habit of shrinking… Either God is in the whole of Nature, with no gaps, or He’s not there at all.”96 Coulson, like most of the others who identified and criticized this way of thinking, was not an atheist but a Christian himself.

 From his Nazi prison cell, Lutheran pastor Dietrich Bonhoeffer wrote in a letter “how wrong it is to use God as a stop-gap for the incompleteness of our knowledge. If in fact the frontiers of knowledge are being pushed further and further back (and that is bound to be the case), then God is being pushed back with them, and is therefore continually in retreat. We are to find God in what we know, not in what we don't know.”97 This makes sense to me. If the laws of nature can account for the physical universe by themselves, yet we know through the scriptures and prophets (the truth of which is confirmed to us individually by personal revelation) that God created it, then it stands to reason that He is to be found *in* the laws of nature. These laws, both those we know and those we don’t yet understand, were created and/or utilized by Him in such a way that they would lead to the order and complexity we know today.

 Elder James E. Talmage proposed that “the Holy Ghost directs and controls the numerous forces of Nature, of which indeed a few, and these perhaps of the minor order, wonderful as even the least of them seems to man, have thus far been made known to the human mind. Gravitation, sound, heat, light, and the still more mysterious, seemingly supernatural power of electricity, are but the common servants of the Holy Spirit in His operations. No earnest thinker, no sincere investigator supposes that he has yet learned of all the forces existing in and operating upon matter; indeed, the observed phenomena of nature, yet wholly inexplicable to him, far outnumber those for which he has devised even a partial explanation. There are powers and forces at the command of God, compared with which, electricity, the most occult [mysterious] of all the physical agencies controlled in any degree by man, is as the pack-horse to the locomotive, the foot messenger to the telegraph, the raft of logs to the ocean steamer.”98

 Regardless of which member(s) of the Godhead wield(s) this power, it doesn’t preclude our view of an anthropomorphic and corporeal God any more than does the fact that He listens to millions of prayers simultaneously. Henry Eyring illustrated a dual nature of God by drawing comparisons with great military tactician Robert E. Lee and the wave/particle composition of light: “[A]ny story of Lee as a general would tell about his influence permeating the whole sphere of his activities and very little about Lee the man. In this sense Lee is two people, the man, like anyone else, and the far-flung intelligence system that governed the motion of him and his army much as a wave is spread out in space and governs the motion of a photon or a material particle. In an analogous manner, we may think of God as the all-wise arbiter of the universe, with his infinite wisdom having an influence that permeates the most remote recesses of space, and yet being himself an exalted being with personality and deep concern for struggling humanity.”99

 This may shed some light on Doctrine and Covenants 88:41-43, which teaches that God “is above all things, and in all things, and is through all things, and is round about all things; and all things are by him, and of him, even God, forever and ever. And again, verily I say unto you, he hath given a law unto all things, by which they move in their times and in their seasons; and their courses are fixed, even the courses of the heavens and the earth, which comprehend the earth and all the planets.”100 Thus, the universe which bears the marks of workmanship from natural processes may perhaps be compared to a piece of carpentry which bears the marks of workmanship from saws, hammers and other tools. (This isn’t a perfect analogy because tools don’t operate autonomously, but please don’t misinterpret it as the same personal incredulity argument for design that I’ve already criticized.)

 Adherents of scientism can therefore look at the natural world, deduce that it’s the product of natural causes, and be entirely correct. Only if their hearts are softened to allow personal revelation from the Holy Ghost can they “see” that God is *in* those natural causes. The prophet Alma told the militant atheist Korihor, “Thou hast had signs enough; will ye tempt your God? Will ye say, Show unto me a sign, when ye have the testimony of all these thy brethren, and also all the holy prophets? The scriptures are laid before thee, yea, and all things denote there is a God; yea, even the earth, and all things that are upon the face of it, yea, and its motion, yea, and also all the planets which do move in their regular form do witness that there is a Supreme Creator.”101 He first chastises Korihor for his commitment to scientism, then points to the prophets and scriptures as the primary evidence for God, and only *then* appeals to the order of nature as an evidence. In order to recognize it as such Korihor must first change his worldview and accept other ways of knowing things.

 Nonetheless, most people throughout the world’s history have been blessed by the light of Christ and their suppressed memories of the premortal existence to instinctively recognize the presence of a higher power in nature. As Paul taught, “For the invisible things of him from the creation of the world are clearly seen, being understood by the things that are made, even his eternal power and Godhead; so that they are without excuse.”102 Drawing upon this along with “all that [God] seeth fit that they should have”103, many religions and philosophies have sprung up to pursue spiritual truths as well as they can. The First Presidency in 1978 declared “we believe that God has given and will give to all people sufficient knowledge to help them on their way to eternal salvation, either in this life or in the life to come.”104 Hence they “find God in what [they] know” and are left “without excuse”.

 Finding God in the laws of nature is consistent with what General Authorities have said about His methods of doing things. Brigham Young taught, “Yet I will say with regard to miracles, there is no such thing save to the ignorant – that is, there never was a result wrought out by God or by any of His creatures without there being a cause for it. There may be results, the causes of which we do not see or understand, and what we call miracles are no more than this – they are the results or effects of causes hidden from our understandings.”105 Elder James E. Talmage similarly taught, “Miracles are commonly regarded as occurrences in opposition to the laws of nature. Such a conception is plainly erroneous, for the laws of nature are inviolable. However, as human understanding of these laws is at best but imperfect, events strictly in accordance with natural law may appear contrary thereto. The entire constitution of nature is founded on system and order.”106

 We may thus keep religion and science in their proper spheres of influence, yet find God in both of them. We may keep the Church and our testimonies on their proper foundations of spiritual knowledge and revelation, yet pursue scientific inquiry and empirical knowledge without fear, as God intends. Evangelist and evolution advocate Henry Drummond wrote, “What view of Nature or of Truth is theirs whose interest in Science is not in what it can explain but in what it cannot, whose quest is ignorance not knowledge, whose daily dread is that the cloud may lift, and who, as darkness melts from this field or from that, begin to tremble for the place of His abode? What needs altering in such finely jealous souls is at once their view of Nature and of God. Nature is God’s writing, and can only tell the truth; God is light, and in Him is no darkness at all.”107

## **Implications of Eternity**

 I feel the Latter-day Saint concept of eternity is worth touching on for the way it resolves both a theological and a scientific conundrum. First, it addresses the question of how we can have free will and be accountable for sin if we were created by an omnipotent God. Idealist metaphysician John M. E. McTaggart wrote that “an omnipotent God could have prevented all sin by creating us with better natures and in more favourable surroundings. And any good result which might follow from the sin and the punishment could be obtained by such a God, in virtue of his omnipotence, without the sin or the punishment. Thus God would not be justified in punishing sin, though man would be, because God could attain the desired results without the punishment, while man could not. Hence we should not be responsible for our sins to God.”108 Centuries earlier, Thomas Aquinas had also wrestled with the paradox of created beings having free will independent of their Creator.109

Our theology resolves this issue: “Man was also in the beginning with God. Intelligence, or the light of truth, was not created or made, neither indeed can be. All truth is independent in that sphere in which God has placed it, to act for itself, as all intelligence also; otherwise there is no existence. Behold, here is the agency of man, and here is the condemnation of man; because that which was from the beginning is plainly manifest unto them, and they receive not the light.”110 Joseph Smith taught “the mind of man – the intelligent part – is as immortal as, and is co-equal [co-eternal] with, God himself… I am dwelling on the immutability of the spirit and on the body of man… Is it logical to say that a spirit is immortal and yet have a beginning? Because if a spirit of man had a beginning, it will have an end, but it does not have a beginning or end. This is good logic and is illustrated by my ring. I take my ring from my finger and liken it unto the mind of man – the immortal spirit – because it has no beginning or end. Suppose you cut it in two – as the Lord lives there would be a beginning and an end. So it is with man.”111

 The entire extent and nature of this doctrine hasn’t been revealed. As noted in the *Encyclopedia of Mormonism*, “Some LDS leaders have interpreted this to mean that intelligent beings – called intelligences – existed before and after they were given spirit bodies in the premortal existence. Others have interpreted it to mean that intelligent beings were organized as spirits out of eternal intelligent matter, that they did not exist as individuals before they were organized as spirit beings in the premortal existence… The Church has taken no official position on this issue.”112 Personally, I lean toward the first option. But in either case, these teachings make clear that some essence or part of us – not our spirits or our bodies, but *something* – has always existed and was not created by God. This then allows us true freedom of choice, which God respects and will never take away from us.

 Evidently, the matter of which the physical universe was made is also co-eternal with God, for Latter-day Saints reject the mainstream Christian idea of *creatio ex nihilo*; creation from nothing. Non-LDS scholar James N. Hubler observed, “*Creatio ex nihilo* appeared suddenly in the latter half of the second century c.e. Not only did *creatio ex nihilo* lack precedent, it stood in firm opposition to all the philosophical schools of the Greco-Roman world… [T]he doctrine was not forced upon the Christian community by their revealed tradition, either in Biblical texts or the Early Jewish interpretation of them… it was not a position attested in the New Testament doctrine or even sub-apostolic writings. It was a position taken by the apologists of the late second century, Tatian and Theophilus, and developed by various ecclesiastical writers thereafter, by Irenaeus, Tertullian, and Origen. *Creatio ex nihilo* represents an innovation in the interpretive traditions of revelation and cannot be explained merely as a continuation of tradition.”113

 As a result, the doctrine of eternity resolves the scientific question of why *anything* exists at all. The law of conservation of mass holds that matter cannot be created or destroyed, and while this law has a few anomalies and gray areas, there’s no indication anywhere in science that something can come from nothing. Discovering a source for the matter that was compressed before the Big Bang would only shift the paradox up another level, like the tongue-in-cheek cosmological metaphor of a flat earth supported by an infinite stack of turtles.114 Eternally existent matter cuts through the whole problem; if it’s without beginning or end, then there was never a point at which something came from nothing. This also seems impossible, but that’s because we humans are limited by our concept of “time”; and it seems to me that in order to have no beginning or end, eternity must be not just an infinite time but something *beyond* time altogether, for “all is as one day with God, and time only is measured unto men”115, and why temple sealings are performed “for time *and* eternity”.116

It seems likely that science will also discover this principle of timelessness and we have nothing to fear if it does; no “God of the gaps” who will be forced into retreat. Einstein’s theory of relativity was probably the first major step in this direction when he proved that measurements of space and time change relative to the velocity of their observer117; but even years earlier his professor Hermann Minkowski had been bold enough to declare, “Now you know why I said at the outset that space and time are to fade away into shadows, and only a world in itself will subsist.”118 Again, it would be unwise to cite even the most recent scientific advances as proof of the doctrine of eternity, because science is prone to change and future discoveries may seem less compatible. Nonetheless, continued scientific explorations into the concept of time are very intriguing and make sense from both empirical and doctrinal standpoints.119

 God, like intelligences and matter – and perhaps intelligences *are* the basis of matter – is “without beginning of days or end of years, and is not this endless?”120 This may seem in contradiction to Joseph Smith’s King Follett Discourse121 and Lorenzo Snow’s famous couplet, “As man is now, God once was; as God is now, man may be.”122 We should remember that although the view of God as an exalted man is widely accepted within the Church, we really know very little about it or its implications. When asked about it by a *TIME* reporter, President Gordon B. Hinckley responded, “I don't know that we teach it. I don’t know that we emphasize it. I haven't heard it discussed for a long time in public discourse. I don’t know. I don’t know all the circumstances under which that statement was made. I understand the philosophical background behind it. But I don't know a lot about it and I don't know that others know a lot about it.”123

 More to the point, however, if eternity is beyond time, then any contradiction here is nullified. If an exalted being moves beyond the bounds of time to attain eternity, then He is by definition without beginning or end, notwithstanding there was a point at which He was not exalted. If nothing else, certainly from the perspective of those who are still bound by time He would be endless in every sense of the word. I think being free from time also gives a major clue as to how God can to give His undivided attention to everyone and everything in the universe simultaneously124; and it frees believers, in pointing to Him as the ultimate cause of the natural laws and the organization of the universe, from the turtle-stacking paradox I already mentioned. As far as this universe is concerned, “the reckoning of the Lord’s time [is] according to the reckoning of Kolob”, for He has “set this one to govern all those which belong to the same order as that upon which thou standest.”125

 Much of what I’ve said represents my personal views. No one should construe it as doctrine or, even if they agree with me, let it become more important than true doctrines or a primary basis for their testimony. It’s probably not an appropriate discussion for Sunday school either. Let me also add that even if everything I’ve said happens to be entirely correct, it only gives a most generic overview and doesn’t get into any nitty-gritty details of *how* all these theoretical constructs actually work in practice. I’d never presume to be able to do that. The fullness of God’s power and methodology will always remain incomprehensible to mortal beings, even prophets, and that’s how it’s meant to be. As Paul taught, “For now we see through a glass, darkly; but then face to face: now I know in part; but then shall I know even as also I am known.”126

## **Art**

 I was on YouTube, watching a montage of celestial phenomena set to David Arkenstone’s “Stepping Stars”127, when I was overcome by a feeling of awe and wonder that neither the pictures nor the song could have inspired on their own. Chronic depression aside, I’m not particularly emotional by nature. I love looking at stars and planets and galaxies and contemplating the mind-boggling immensity of the universe, and David Arkenstone has been one of my favorite composers ever since my childhood days when my family listened to him and similar artists while getting ready for church nearly every Sunday. But combining the two had an overwhelming effect. Granted, I could have been overwhelmed just because I’m not used to that sort of thing. But I thought how fitting this music was to these images, and what a shame it was that in real life space is silent to the naked ear and doesn’t come with an awe-inspiring soundtrack. (The Voyager 1 spacecraft has picked up the sound of plasma waves128, but it just isn’t the same.)

 Finally, after exploring the infamous interplay of religion and science, we approach the topic of art. It’s difficult to define whether art also fits in the category of “truth”. What is truth? Is it merely the veracity of facts, or does it have a deeper meaning? I’m reminded of the passage from Douglas Adams that “when the Editors of the [Hitchhikers’] Guide were sued by the families of those who had died as a result of taking the entry on the planet Traal literally (it said ‘Ravenous Bugblatter Beasts often make a very good meal *for* visiting tourists’ instead of ‘Ravenous Bugblatter Beasts often make a very good meal *of* visiting tourists’), they claimed that the first version of the sentence was the more aesthetically pleasing, summoned a qualified poet to testify under oath that beauty was truth, truth beauty and hoped thereby to prove that the guilty party in this case was Life itself for failing to be either beautiful or true.”129 Beauty is in the eye of the beholder, so I guess the question of whether art is “true” has to be put on the shelf.

 I think, nonetheless, that art is ultimately encompassed by the gospel. Admittedly, it’s rarely mentioned in the scriptures, with the exception of music – David and others praised the Lord with Psalms, and He taught Emma Smith that, “my soul delighteth in the song of the heart; yea, the song of the righteous is a prayer unto me, and it shall be answered with a blessing upon their heads.”130 But I don’t think it’s a coincidence that the Renaissance which accompanied the Protestant Reformation encompassed not only scientific advances but also a resurgence in art. Spiritual and religious themes have provided the greatest inspiration and impetus for great art works throughout history, in any medium. Abraham Lincoln, whose own religious views are still debated131, is alleged to have said “The highest art is always the most religious, and the greatest artist is always a devout person.”132

 The Church undoubtedly recognizes the importance of art as it pertains to the gospel. Although we eschew stained-glass windows, crucifixes, and other forms of ornamentation, every meetinghouse and temple is filled with paintings of Christ and other scriptural figures133, and a replica of Bertel Thorvaldsen’s world-famous *Christus* statue134 graces every temple visitors’ center in the world as well as the icon of the Church’s official website. The copies of the Book of Mormon given out by missionaries contain inserts with illustrations of certain scenes drawn by the famous LDS artist Arnold Friberg,135 and the Church frequently creates films depicting the life of Christ or events in church history.136 Whether or not art in and of itself is intrinsically “true”, it is and always has been an effective medium for *communicating* truths, sometimes more effectively than an entire sermon of spoken words.

 This must be properly understood to glean the truths without taking everything in an artwork too literally and getting hung up on whether it corresponds to real-life details in every particular. The Genesis account isn’t entirely accurate in a literal sense but nonetheless communicates important truths, and art is the same way. It emanates from the artist’s soul and is meant to reach the souls of observers, listeners, or readers. Abolitionist clergyman Henry Ward Beecher said, “Every artist dips his brush in his own soul, and paints his own nature into his pictures.”137 Aristotle wrote, “The aim of art is to represent not the outward appearance of things, but their inward significance.”138 Hence we see differing paintings and sculptures of the Nativity through the ages which are created to reflect the artists’ times and cultures rather than its original setting.139 This artistic license allows Christ’s birth to resonate in a real and identifiable way with people throughout the world and throughout history.

 Another example is the cartoon I cited at the very beginning. I don’t believe that He really looks like a cute cartoon character, because He’s a real person. I don’t believe that He really stands on a cloud and looks down to see what’s going on, because He has better places to be and better ways to observe. I don’t believe that He could ever really be surprised or dumbfounded by the religion vs. science debate, or any of the myriad other stupid things people do, because He knows our nature all too well. But none of these inaccuracies are flaws in the cartoon and none of them detract from the truth of its message which, as I said, was three of the most profound words I’ve ever read. The cartoon’s strength lies in its simplicity.

Occasional mistakes are inevitable too. Robert J. Matthews explained, “When I was on the Correlation Committee, there were groups producing scripture films. They would send to us for approval the text of the words that were to be spoken. We would read the text and decide whether we liked it or not. They would never send us the artwork for clearance. But when you see the artwork, that makes all the difference in the world. It was always too late then. I decided at that point that it is so difficult to create a motion picture, or any illustration, and not convey more than should be conveyed. If you paint a man or woman, they have to have clothes on. And the minute you paint that clothing, you have said something either right or wrong. It would be a marvelous help if there were artists who could illustrate things that researchers and archaeologists had discovered… I think people get the main thrust. But sometimes there are things that shouldn’t be in pictures because we don’t know how to accurately depict them.”140

 Del Parson’s widely-used painting of Joseph Smith and Oliver Cowdery translating the gold plates has come under particularly heavy criticism. It portrays the two men with the plates sitting openly on a table between them, and doesn’t show Joseph using a seer stone or placing his face in a hat to exclude the light.141 Nonetheless, as the apologetics organization FairMormon points out, such paintings aren’t meant to give a historical lesson so much as to convey certain truths: “1. The translation was carried out openly – Joseph had no opportunity to hide notes or books… 2. The plates had a physical reality, and Oliver Cowdery was convinced of this reality… 3. The translation was not a weird, esoteric exercise.”142 If the scene were portrayed more accurately in a literal sense it would appear to modern eyes as “a weird, esoteric exercise”, which would detract from the core message it was intended to convey.

 President Spencer W. Kimball told BYU students and faculty, “In our world, there have risen brilliant stars in drama, music, literature, sculpture, painting, science, and all the fields of excellence. For long years I have had a vision of members of the Church greatly increasing their already strong positions of excellence till the eyes of all the world will be upon us… We are proud of the artistic heritage that the Church has brought to us from its earliest beginnings, but the full story of Mormonism has never yet been written nor painted nor sculpted nor spoken. It remains for inspired hearts and talented fingers yet to reveal themselves. They must be faithful, inspired, active Church members to give life and feeling and true perspective to a subject so worthy. Such masterpieces should run for months in every movie center, cover every part of the globe in the tongues of the people, written by great artists, purified by the best critics.”143

 President Kimball urged the Saints to refine their skills so that we could, aided by the Holy Ghost, surpass the great artists of past ages. While this may indeed by in our future, I feel there’s no shame in the fact that most great works of art have been produced by non-members. As with the scientific advances that have blessed the Church and all mankind, it’s evidence to me that we’re not the only ones who play a part in God’s plan. Terryl Givens shared the same view while discussing Joseph Smith’s philosophy of universalism: “It also gives us an answer to the question, ‘When is Mormonism going to produce a Dante, or a Shakespeare, or a Beethoven?’ And the answer is, ‘We don’t need a Mormon Dante, or Shakespeare, or Beethoven. We have Dante, and Shakespeare, and Beethoven. We’ve got Handel’s *Messiah*. Why do they have to be authored by Mormons?’”144 Or as Joseph might put it, “Has Dante any truth? Yes. Have Shakespeare, Beethoven, etc., any truth? Yes…”

## **Creation as Art and Vice-versa**

 The creative drive is something the human family has in common with God, who has made and continues to make many things besides this earth. He told Moses, “And worlds without number have I created; and I also created them for mine own purpose; and by the Son I created them, which is mine Only Begotten.”145 Enoch cried out, “And were it possible that man could number the particles of the earth, yea, millions of earths like this, it would not be a beginning to the number of thy creations; and thy curtains are stretched out still”146, and King David sang, “When I consider thy heavens, the work of thy fingers, the moon and the stars, which thou hast ordained; what is man, that thou art mindful of him? and the son of man, that thou visitest him?”147

With the assumption that this earth’s inhabitants were God’s only children, Christianity used to assume that it was the center of the universe; hence the backlash against Galileo and other scientists. This grander cosmology does nothing to diminish our importance, for God has an infinite attention span, but on the contrary only adds to an appreciation for His power and scope. Modern astronomy continues to vindicate the scriptural claim of “worlds without number”, as scientists estimate there are at least 176 billion galaxies in the universe and probably many more – theoretical astrophysicist Ethan Siegel says, “When [the James Webb Space Telescope] comes around, I wouldn’t be surprised to find that there are maybe even close to **a trillion galaxies** in the observable Universe.”148 Each of these galaxies could easily have billions of planets capable of sustaining life.149 The words of a popular hymn still ring true: “Methinks the Spirit whispers, ‘No man has found ‘pure space,’ nor seen the outside curtains, where nothing has a place.”150

We’ve already discussed the order and complexity of nature and the fact that, while this is attributable to natural laws and not *direct* evidence for a Designer, most people instinctively understand it as emanating from a higher power. Even atheists can find great beauty and serenity in everything from a tree sapling to a massive nebula.151 I believe that both this beauty and our instinctive perception of it – regardless of what the chemical or psychological reasons for that instinct may be – demonstrate that all of the universe was intended as *art*. Granted, not everything in nature is beautiful, particularly in the details of competition and violence that harm and kill millions of living things every day.152 But just as trials and tribulation are woven into the tapestry of a rich and fulfilled life story (in the eternal scheme if not in mortality), the full emerging picture is a very artistic one to my mind.

 If “every artist dips his brush into his own soul”, then what are we to make of God’s soul from observing the universe? Because we’ve never met or observed His other children who live on other planets, the vastness of the universe may seem to indicate that it has nothing to do with us.153 Certainly I think God does have multiple purposes for many of his creations. But keeping these other people in mind we can better remember His mission statement – “For behold, this is my work and my glory, to bring to pass the immortality and eternal life of man.”154 The instinctive understanding of a higher power contributes to that. Even the scientific inquiry afforded to us by creation, as we probe everything from the depths of the oceans to the depths of space, can be said to further us toward this end goal when we remember the importance of secular knowledge in eternal progression.

 God’s goal with His art is to bring us unto Him. As His children, we share this creative drive, but what’s *our* goal? What soul are we dipping *our* brushes into? The answer obviously varies from person to person. As mentioned, religion and spirituality have been the most frequent motivating factors behind great art. These artists have endeavored with their own creations to bring *themselves* closer to *God*, by praising Him with their talents and efforts and inviting others to partake of the deep spiritual feelings that they themselves experience. This, in my opinion, is the noblest form of expression. I don’t mean to say that each of these artists had this exact thought process, or was trying to secure his own salvation with art. But I believe that each of them was, on some level or another, reaching for a sense of communion with the Divine.

 Even the act of creation itself, just like the act of scientific inquiry, intrinsically makes one more *like* God, and Latter-day Saints understand that this is really one and the same goal with drawing closer to Him. God creates art and so can we. When I look at it from this perspective, I realize that space *does* have a soundtrack – several, in fact – but that God didn’t compose them Himself. He left that up to human artists who would be inspired by what He had already created to come up with something that accentuated and magnified it. This same principle can apply, again, to anything from saplings to nebulas. And in this very real sense I believe that by divine design, long before we’re exalted, we have opportunities to become co-creators with God.155

## **Summary**

Religion and science are two sides of the gospel coin and, as I see it, this coin actually has at least *three* sides and also encompasses art. Understanding their proper relationship can help us to make sense of the world and avoid making rash assumptions in one area or another. I don’t claim to have all the answers and, as has been obvious even if I hadn’t said it at the beginning, I’ve incorporated many of the ideas of other people. This overall paradigm works for me and provides context to my sense of wonder and awe about both the physical and spiritual dimensions of the world. I hope others can get something useful out of it and not just find it to be a load of pretentious nonsense. Like the God in the cartoon, I continually pose this question to people everywhere on both sides of the childish debate: “Science *versus* religion?” And notwithstanding the question is rhetorical, still it demands an answer.

I’ll quote from Henry Eyring one more time: “And so, if you are a man or woman of religion, look to the sciences for insights and methods of uncovering still more truths, realizing that ultimately all truths are in harmony. If you are a young person who may feel inclined to disparage religion as you pursue other studies, you will bring enrichment to your life by cultivating faith and an interest in things of the spirit as you follow other pursuits. Such faith will never detract from your abilities in other fields, but it will broaden your thinking and give added depth to your character.”156 For my fellow believers in particular I add some parting words of wisdom from Ralph Waldo Emerson: “The religion that is afraid of science dishonours God and commits suicide.”157

## **Footnotes and Tangents**

1. W. Cleon Skousen was a political theorist who once presented some very skewed ideas about “deep doctrine” that have found a ready audience among LDS missionaries and others to this day (Cleon Skousen, “The Real Meaning of the Atonement”, April 1977; Clyde J. Williams, “A Response to the Address ‘The Real Meaning of the Atonement’”, June 2000; and Jake, “Talks from the Missionary Underground”, Wheat and Tares [blog], 24 November 2011).

2. Ken Ham is a young Earth creationist and a co-founder of Answers in Genesis, which concludes its mission statement saying “By definition, no apparent, perceived or claimed evidence in any field, including history and chronology, can be valid if it contradicts the scriptural record. Of primary importance is the fact that evidence is always subject to interpretation by fallible people who do not possess all information” (Answers in Genesis, “The AiG Statement of Faith”, updated 12 December 2012). See James F. McGrath, “Ken Ham is a Con Artist and Wants Other Christians To Be Con Artists Too”, Exploring Our Matrix (blog), 22 June 2012.

3. Richard G. Scott, “Truth: The Foundation of Correct Decisions”, 177th Semiannual General Conference of the Church of Jesus Christ of Latter-day Saints”, 7 October 2007. I have no disagreement with this talk, but I do wish to point out that while direct revelation *is* the best way of knowing things, it has a limitation in that it only works with things God has chosen to reveal that way.

4. Donald L. Hallstrom, “Converted to His Gospel through His Church”, 182nd Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 7 April 2012. This was an eye-opening talk for me, and since then I don’t think I’ve used the terms interchangeably even once.

5. Ronald E. Poelman, “The Gospel and the Church”, *Ensign*, November 1984. Many members who had seen the talk live during General Conference and loved it were disappointed with this revision.

6. Peggy Fletcher Stack, “Poelman Revises Conference Speech”, *Sunstone* 10:1, 1985. This was a tangent but I brought it up because anyone who Googles the talk will stumble upon the controversy. It was also mentioned in the *Deseret News*, but because the changes were made with very little public explanation, critics charge that the original talk was censored for promoting subversive views. This is ludicrous because the First Presidency had ample opportunity to review the talk *before* it was given, and a side-by-side comparison of the original and altered text reveals that the severity of most changes has been grossly overstated.

7. B. H. Roberts, *History of the Church* Volume 3 (Salt Lake City: Deseret Book, 1902), p. 30. Though this work doesn’t measure up to modern standards of historical scholarship, there seems no reason to doubt the gist of this quote.

8. Articles of Faith 4.

9. Neal A. Maxwell, *Deposition of a Disciple* (Salt Lake City: Deseret Book, 1976), p. 16.

10. James E. Talmage, “The Earth and Man”, Salt Lake Tabernacle 9 August 1931; printed in the *Deseret News* 21 November 1931 and reprinted in *The Juvenile Instructor* 100:12 and 101:1, December 1965 and January 1966. As both an Apostle and a geologist, Elder Talmage was uniquely qualified to speak on both religious and scientific kinds of truth. While he personally would not accept human evolution unless more substantial evidence was discovered (which it has been), he had no qualms about the age of the Earth. The occasion of this talk was following a talk by Elder Joseph Fielding Smith to the Genealogical Society of Utah that promoted young Earth creationism, and complaints by Elder B. H. Roberts that the alternative viewpoint needed to also be shared by an Apostle. Henry Eyring, another scientist, was very fond of this philosophy that the gospel encompasses all truth and he said it several times, but I didn’t cite him on this point because he wasn’t an Apostle. Of course, his doctrinal insights are still valuable, especially considering that Elder Neal A. Maxwell said “Though Henry Eyring is, in my opinion, the most distinguished Mormon scientist of this dispensation, Henry’s highest expression of scholarship was seen in his capacity to grasp the simplest but most sublime truths about God, man, and the universe!” (Henry Eyring, *Reflections of a Scientist*, Salt Lake City: Deseret Book, 1983, p. vii). He was also not afraid to differ with Apostles on scientific matters: “When President Joseph Fielding Smith's book *Man, His Origin and Destiny* was published, someone urged it as an institute course. One of the institute teachers came to me and said, ‘If we have to follow it exactly, we will lose some of the young people.’ I said, ‘I don’t think you need to worry.’ I thought it was a good idea to get this problem out in public, so the next time I went to Sunday School General Board meeting, I got up and bore my testimony that the evidence was strongly in the direction that the world was four or five billion years old. That week, President Smith called and asked me to come see him. We talked for about an hour, and he explained his views to me. I said, ‘Brother Smith, I have read your books and know your point of view, and I understand that is how it looks to you. It just looks a little different to me.’ He said as we ended, ‘Well, Brother Eyring, I would like to have you come in and let me talk with you sometime when you are not quite so excited.’ As far as I could see, we parted on the best of terms” (Ibid, p. 53)

11. Roberts, *History of the Church* Volume 5, p. 517.

12. Doctrine and Covenants 88:118.

13. See, for example, Spencer W. Kimball, “Seek Learning, Even by Study and Also by Faith”, First Presidency Message, Ensign, September 1983; and Mary N. Cook, “Seek Learning: You Have a Work to Do”, 182nd Annual General Conference of the Church of Jesus Christ of Latter-day Saints, April 2012.

14. Edward B. Firmage, “A Final Testimony”, *The Memoirs of Hugh B. Brown: An Abundant Life* (Salt Lake City: Signature Books, 1988), p. 138. Of course, President Brown didn’t publicly explore the possible implications of this statement as I’m doing. He said earlier in the memoir, “I would like to distinguish between theology and religion. Religion is my preference. Someone has said, ‘I hate botany, but I love flowers.’ I would say that I do not care for theology, but I love religion.” To each their own. Other Apostles have loved theology – see, for instance, Parley P. Pratt, *Key to the Science of Theology* (Liverpool: F. D. Richards, 1855) – and so do I.

15. For example: “There is only one thing that can bring peace into the world. It is the adoption of the gospel of Jesus Christ, rightly understood, obeyed and practiced by rulers and people alike” (Joseph F. Smith, Improvement Era, September 1914, pp. 1074-75). “For over fifty years, I have heard the leaders of this Church preach that peace can only come through the gospel of Jesus Christ. I am coming to understand why. The peace the gospel brings is not just the *absence* of war. It is the *opposite* of war. Gospel peace is the opposite of any conflict, armed or unarmed. It is the opposite of national or ethnic hostilities, of civil or family strife” (Dallin H. Oaks, “World Peace”, 160th Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 8 April 1990).

16. Doctrine and Covenants 131:6.

17. Marion D. Hanks, “Theological Illiterates”, *Improvement Era*, September 1969, p. 42. The atheist criticism that most people belong to a certain faith tradition only because they were born into it is somewhat true, though it applies less to Mormonism because we are a missionary-minded faith with hundreds of thousands of converts a year. Still, I think this contributes to a lot of the cultural problems in Utah and other areas with high LDS populations.

18. 2 Nephi 28:30.

19. Articles of Faith 9.

20. Alfred Edersheim, *The Life and Times of Jesus the Messiah* Volume 2 (1883), p. 108.

21. Jeffrey R. Holland, “Lord, I Believe”, 183rd Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 7 April 2013. Elder Holland referred to Edersheim as a “gifted writer” and, in citing him, demonstrated Joseph Smith’s philosophy of gathering up “good and true principles” from others outside our faith.

22. In its totality, the history of the ban is far more convoluted than this. For good overviews see “Race and the Priesthood”, Gospel Topics, lds.org, 2013; Edward L. Kimball, “Spencer W. Kimball and the Revelation on Priesthood”, *BYU Studies* 47:2; and in Lester E. Bush, Jr. and Armand L. Mauss (editors), *Neither White nor Black: Mormon Scholars Confront the Race Issue in a Universal Church* (Salt Lake City: Signature Books, 1984). My own overview of the subject is the most thorough ever written, to my knowledge, but doesn’t measure up to the same standards of scholarship (it has a bibliography but no citations) and has more information than most people probably need. In any case, it can be found at <http://christopherrandallnicholson.webs.com/lds-racial-history>. Here let it suffice to say that Mormons as a demographic have historically been neither more nor less racist than their contemporaries.

23. Most famously he is recorded as saying “When our father Adam came into the garden of Eden, he came into it with a celestial body, and brought Eve, one of his wives, with him. He helped to make and organize this world. He is MICHAEL, the Archangel, the ANCIENT OF DAYS! about whom holy men have written and spoken – HE is our FATHER and our GOD, and the only God with whom WE have to do. Every man upon the earth, professing Christians or non-professing, must hear it, and will know it sooner or later” (George D. Watt [transcriber], *Journal of Discourses* Volume 1, 9 April 1852, p. 50; emphasis in original). My personal belief is that he was teaching a true principle that has been rejected as a doctrine because it was never fully explained. This may be hinted at a few sentences later: “I could tell you much more about this; but were I to tell you the whole truth, blasphemy would be nothing to it, in the estimation of the superstitious and over-righteous of mankind. However, I have told you the truth as far as I have gone.”

24. In 1902 Elder Charles W. Penrose wrote “The Church of Jesus Christ of Latter-day Saints has never formulated or adopted any theory concerning the subject treated upon by President Young as to Adam” (Charles W. Penrose, “Our Father Adam”, *Improvement Era* September 1902, p. 873; reprinted in *Millennial Star* 64:50, 11 December 1902, p. 789). In 1976 President Spencer W. Kimball said “We warn you against the dissemination of doctrines which are not according to the Scriptures and which are alleged to have been taught by some of the General Authorities of past generations. Such, for instance, is the Adam-God theory. We denounce that theory and hope that everyone will be cautioned against this and other kinds of false doctrine” (Spencer W. Kimball, “Our Own Liahona”, 146th Semiannual General Conference of the Church of Jesus Christ of Latter-day Saints, October 1976). According to Elden Watson, in a private interview “He said that he did not say that President Brigham Young did not make the statements which are attributed to him, nor did he claim that they were falsely reported. Neither did he say that Brigham Young taught false doctrine. What he did say and what he meant is that the Adam-God theory is false, and the Adam-God theory is that interpretation which is placed on Brigham Young’s words by present day apostates and fundamentalists – their understanding of what Brigham Yong [sic] meant is false” (Elden Watson, “Different Thoughts – #7 – Adam-God”, May 1998).

25. See, for example, Joseph Fielding Smith, *Man, His Origin and Destiny* (Salt Lake City: Deseret Book, 1954); Bruce R. McConkie (editor), *Doctrines of Salvation: Sermons and Writings of Joseph Fielding Smith* Volume 1 (Salt Lake City: Bookcraft, 1954), pp. 116-120, 139-151; Bruce R. McConkie, *Mormon Doctrine* 2nd Edition (Salt Lake City: Deseret Book, 1966), pp. 247-256; and Bruce R. McConkie, “The Seven Deadly Heresies”, 1 June 1980. President David O. McKay wrote, “On the subject of organic evolution the Church has officially taken no position. The book ‘Man, His Origin and Destiny’ was not published by the Church, and is not approved by the Church. The book contains expressions of the author's views for which he alone is responsible” (David O. McKay, letter to William L. Stokes, 15 February 1957, published with McKay’s permission as of 18 October 1968). Despite its title, *Mormon Doctrine* contained a disclaimer that it was the “full and sole responsibility” of the author, while the wording in the “Heresies” speech was softened considerably in the version on the BYU Speeches website. With few exceptions (such as in *Man, His Origin and Destiny*), these men differed from mainstream creationists in that they restricted their criticism to theological and not scientific grounds, so their words still have some merit if you read between the lines. Henry Eyring, who wasn’t a fan of this latter book, nonetheless wrote “I would say that I sustained President Smith as my Church leader one hundred percent. I think he was a great man. He had a different background and training on this issue. Maybe he was right. I think he was right on most things, and if you followed him, he would get you into the celestial kingdom” (Eyring, *Reflections of a Scientist*, p. 53).

26. BYU Board of Trustees, “Evolution and the Origin of Man”, October 1992. “This packet contains, as far as could be found, all statements issued by the First Presidency of the Church of Jesus Christ of Latter-day Saints on the subject of evolution and the origin of man, and a statement on the Church’s attitude toward science… Various views have been expressed by other Church leaders on this subject over many decades; however, formal statements by the First Presidency are the definitive source of official Church positions. It is hoped that these materials will provide a firm foundation for individual study in a context of faith in the restored gospel.” The statements in question affirm man’s divine origin but say virtually nothing about evolution. Vague passages in the 1909 statement that could be interpreted as anti-evolution were removed from the much shorter 1925 version; sadly, the earlier version is the one most frequently known and cited today. It isn’t “wrong” but it can be confusing. See also Michael R. Ash, “The Mormon Myth of Evil Evolution”, *Dialogue: A Journal of Mormon Thought* 35:4, pp. 33-52. This article includes many of the pro- and anti-evolution statements by church leaders over the years.

27. Stephen E. Robinson, *Are Mormons Christians?* (Salt Lake City: Deseret Book, 1993), 18-21. Professor Robinson was lamenting that the Church’s critics often present such anomalies as standard doctrine. Indeed, focusing on the Adam-God theory or other issues at the expense of the many words of wisdom in Brigham Young’s sermons creates a grossly skewed picture, and the same principle applies to any church leader.

28. Eyring, *Reflections of a Scientist*, p. 47. With regard to the imperfection of church leaders in general, he wrote: “I believe in following counsel. I’d like to do all the things that the Brethren ask me to do. I’m convinced that the prophets are inspired and that I’ll be inspired in guiding my family if I listen to them. When I don’t follow the counsel of those who are placed over me, then I'm in very deep water. I’m enough of a coward and a poor enough swimmer that that's not where I want to be. Still, I also like to see one of the Brethren make what appears to be a mistake now and then. I make them all the time. So, I think that if the Lord can use one of the Brethren and they’re not perfect, then maybe he can find a way to use me. Some people get all worked up when someone important says something a little differently than they would say it. But I’m delighted. If I can see something less than perfection in our leaders, it gives me hope. I want to get to the celestial kingdom. I sometimes fall asleep in the temple, but mostly I stay awake. I also doze in church occasionally, but that’s because I trust my leaders. If I were worried about what they were doing, I’d stay wide awake” (Ibid, pp. 18-19).

29. J. Reuben Clark, Jr., “When Are the Writings and Sermons of Church Leaders Entitled to the Claim of Scripture?”, 7 July 1954; published in the *Church News* 31 July 1954. The occasion was a speech at BYU shortly following Elder Joseph Fielding Smith’s visit there to promote his book *Man: His Origin and Destiny*. Given Elder Smith’s status as President of the Quorum of the Twelve, President David O. McKay was concerned about the book being perceived as an official church publication, especially when Elder Smith unsuccessfully urged it as an institute course of study.

30. Eyring, *Reflections of a Scientist*, p. 47.

31. Moroni 10:4-5.

32. Alma 32:27-28. This chapter is one of my favorites in all of scripture, because it explains so logically and concisely why faith isn’t “blind” – i.e. you don’t just pick something that sounds nice and invest your belief in it.

33. I refer specifically to the anti-evolution sentiments already cited. It should be noted, however, that few if any church leaders have ever *intended* to be “anti-science”. Their rejection of evolution was mainly a defense against the materialist anti-religion worldview commonly associated with it, discussed later in my paper. Elder Smith cited a few interesting quotes in *Doctrines of Salvation*. “If mankind have been slowly developing out of ape-like ancestors, then what is called sin consists of nothing but the tendencies which they have inherited from these ancestors: there never was a state of primeval innocence” (E. W. McBride, *The Modern Churchman*, September 1924, p. 232). “As a matter of fact, the higher man of today is not worrying about his sins at all, still less about their punishment. His mission, if he is good for anything, is to be up and doing; and insofar as he acts wrongly or unwisely he expects to suffer. He may unconsciously plead for mitigation on the ground of good intentions, but never either consciously or unconsciously will anyone but a cur ask for the punishment to fall on someone else, nor rejoice if told that it already has so fallen” (Oliver Lodge, *Man and the Universe*, New York City: James H. Doran Co., 1920, p. 204). This worldview was also probably the catalyst for the First Presidency statements in 1909 and 1925, which reiterated the doctrines of man’s divine origin and potential but didn’t say evolution itself was false, and it still threatens religion to this day. For example: “Modern science directly implies that there are no inherent moral or ethical laws, no absolute guiding principles for human society… We must conclude that when we die, we die, and that is the end of us… Finally, free will as it is traditionally conceived – the freedom to make uncoerced and unpredictable choices among alternative courses of action – simply does not exist… There is no way that the evolutionary process as currently conceived can produce a being that is truly free to make moral choices” William Provine, “Evolution and the Foundation of Ethics” *MBL Science* 3, 1988, pp. 25-29.

34. David W. Evans (transcriber), “Attending Meetings, etc.”, *Journal of Discourses* Volume 14, 14 May 1871, pp. 115-116.

35. Angus Maddison, “Growth and Interaction in the World Economy: The Roots of Modernity”, American Enterprise Institute, 2005, p. 1. Maddison explains very well the factors at work here and I believe God’s involvement is similar to my paradigm of His involvement in natural processes, explained later in the essay.

36. L. Tom Perry, “‘Thou Shalt Give Heed unto All His Words’”, 170th Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 1 April 2000. Understandably, Elder Perry went on to caution, “But the bricks and mortar and the continued expansion of technology will only bring the messages to us. One challenge remains the same from the time of King Benjamin to the time of President Grant to today – that is, the challenge of each individual and family, through personal and collective study, to internalize the messages of the gospel of our Lord and Savior. Salvation is not in facilities or technology, but in the word.”

37. Gordon B. Hinckley, “Thanks to the Lord for His Blessings”, 169th Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 4 April 1999.

38. Philo Farnsworth, though not the only inventor of television, made the most substantial contributions to its development. At the age of fourteen he was plowing a field in Idaho when the rows of overturned dirt inspired him to realize that an image could be divided and transmitted in similar rows of electrons (BYU High School, “Philo Taylor Farnsworth: Mathematician, Inventor, Father of Television”). I find it somewhat intriguing that this inspiration came at the same age that Joseph Smith had his First Vision. Coincidence? Probably, but intriguing nonetheless.

39. Henry Eyring was not only “the most distinguished Mormon scientist of this dispensation” in the words of Elder Neal A. Maxwell, but one of the most distinguished scientists, period. In 1935 he developed the Transition state theory of chemical reactions, which is fundamental in chemistry today, and evidently was denied a Nobel Prize because the committee didn’t understand it until years later (Bo G. Malmström and Bertil Andersson, “The Nobel Prize in Chemistry: The Development of Modern Chemistry”, Nobelprize.org).

40. Eyring, *Reflections of a Scientist*, p. 91.

41. Dieter F. Uchtdorf, “Four Titles”, 183rd Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 6 April 2013. This quote is very reassuring to those of us who fall on our faces over and over again.

42. Stan Larson, “The King Follett Discourse: A Newly Amalgamated Text”, *BYU Studies* 18:2, winter 1978, p. 8. This discourse was given by Joseph Smith after the funeral service of King Follett on April 7, 1844, and reconstructed from contemporaneous notes by Thomas Bullock, William Clayton, Willard Richards, and Wilford Woodruff. A previous amalgamation was printed in Roberts, *History of the Church* Volume 6, pp. 302-17, and reprinted in the April 1971 and May 1971 *Ensign*. Of all the options available I chose this particular quote on theosis because I like how blunt and candid it is. Joseph Smith was good at that. This discourse synthesized and expounded on several doctrines he had introduced previously; indeed, near the end of his life he began teaching more “deep” and controversial topics. Brigham Young later recalled, “The Prophet Joseph said to me, about sixteen years ago [at Kirtland], ‘If I was to show the Latter-day Saints all the revelations that the Lord has shown unto me, there is scarce a man that would stay with me, they could not bear it’” (Brigham Young, *Millennial Star* 17, 1 September 1851, p. 258). Parley P. Pratt recalled him saying, “‘Brethren, if I were to tell you all I know of the kingdom of God, I do know that you would rise up and kill me.’ Brother Brigham arose and said, ‘Don’t tell me anything that I can’t bear, for I don’t want to apostatize’” (Parley P. Pratt, *Millennial Star* 55, 4 September 1893, p. 585).

43. Doctrine and Covenants 29:35.

44. Doctrine and Covenants 130:18-19. Elder Lorenzo Snow reminded the members that this shouldn’t be a matter of rivalry: “Let a man remember that there are others that are in darkness and that have not advanced so far in knowledge, wisdom and intelligence, and let him impart that knowledge, intelligence and power unto his friends and brethren, inasmuch as he is farther advanced than they are, and by so doing he will soon discover that his mind will expand, and that light and knowledge which he had gained would increase and multiply more rapidly” (*Deseret News*, 11 March 1857, p. 3).

45. Eyring, *Reflections of a Scientist,* p. 39.

46. This is also the root word of “apology”. As explained by Bridget Jack Meyers, “Today when we say ‘apology,’ it is usually an expression of regret: ‘I’m sorry I stepped on your foot.’ But in the classical Greek sense, an apologetic response to the same scenario would be, ‘I stepped on your foot because you had it poking out in the middle of the aisle, you idiot!’ – in other words, to make a reasonable, fact-based explanation” (Joseph Walker, “Mormon apologists gather, but not to apologize”, *Deseret News*, 2 August 2012). Hence was Socrates was on trial for spreading subversive ideas he made an “Apology” in his defense, as published variously by Xenophon and Plato.

47. 1 Peter 3:15. It’s doubtful, of course, that Paul is urging all members to come up with a scholarly defense of their faith. An answer as simple as “I believe in Christ because I feel God’s love and have seen His influence in my life” can technically be considered apologetics.

48. C. S. Lewis, “Learning in War-Time”, *The Weight of Glory and Other Addresses* (New York City: Macmillan, 1965), pp. 27-28. Again gathering up “good and true principles”, Lewis has been quoted thirty-one times in General Conference since 1971, making him the most quoted non-member with William Shakespeare coming in second at twenty citations (James Jardine, “C. S. Lewis’ writings have profound effect on Latter-day Saints”, *Deseret News*, 22 November 2013). Elder Neal A. Maxwell quoted him most often out of all the General Authorities; four times in General Conference and fifteen times in other works (Sarah Petersen and Abby Stevens, “23 C. S. Lewis quotes shared in LDS general conference”, *Deseret News*, 24 November 2013). Ironically, the only known occasion Lewis referenced Mormons was when he wrote to a woman in Salt Lake City, “I do however strongly object to the tyrannic and unscriptural insolence of anything that calls itself a Church and makes teetotalism a condition of membership” (Michael De Groote, “What C. S. Lewis thought about Mormons”, *Deseret News*, 5 June 2009).

49. Austin Farrer, *Light on C. S. Lewis* (New York City: Harcourt and Brace, 1965), p. 26.

50. “ISPART Renamed Neal A. Maxwell Institute for religious Schoarship”, *Insights* 26:1, 2006. “Brigham Young University's Board of Trustees recently approved the renaming of BYU's Institute for the Study and Preservation of Ancient Religious Texts (ISPART) to the Neal A. Maxwell Institute for Religious Scholarship. ‘By renaming ISPART, BYU honors the memory and life's work of Elder Maxwell,’ said BYU president Cecil O. Samuelson. ‘This change firmly sets the future direction of the Institute, which is to promote profound scholarship supporting the restored gospel of Jesus Christ – something Elder Maxwell cared about deeply.’”

51. Maxwell, *Deposition of a Disciple*, 48-49.

52. See for example Warren P. Aston and Michaela Knoth Aston, *In the Footsteps of Lehi: New Evidence for Lehi’s Journey across Arabia to Bountiful* (Salt Lake City: Deseret Book, 1994) and John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City and Provo: Deseret Book and the Foundation for Ancient Research and Mormon Studies, 1985). The latter, published after decades of work, popularized the idea that Book of Mormon events in the New World took place within a limited geography; specifically, Mesoamerica. Almost thirty years later this view is the consensus of LDS scholars. These sources, like all work from FARMS or FairMormon, are directed toward a Mormon audience to begin with and thus not trying to “prove” the Book of Mormon. Rather, they place mainstream discoveries in a context that may shed light on it. Mainstream archeologists tend to ignore the question of Book of Mormon historicity, with the exception of Dr. Michael Coe who seems to have a dogmatic obsession with it (see John L. Sorenson, “An Open Letter to Dr. Michael Coe”, 27 July 2012). Many less-educated critics enjoy “discrediting” FARMS and FairMormon with ad hominem attacks and blanket accusations; for a somewhat mocking response to these see Daniel C. Peterson, “Apologetics by the Numbers”, FairMormon, March 2007.

53. See for example Royal Skousen, “Hebraic Elements in the Language of the Book of Mormon”, Insights 17:12, December 1997; John A. Tvedtnes, “Colophons in the Book of Mormon”, in John L. Sorenson and Melvin J. Thorne (editors), *Rediscovering the Book of Mormon* (Salt Lake City and Provo: Deseret Book and the Foundation for Ancient Research and Mormon Studies, 1991), pp. 32-37; and John W. Welch, “The Discovery of Chiasmus in the Book of Mormon: Forty Years Later”, *Journal of Book of Mormon Studies* 16:2, 2007, pp. 74-87, 99.

54. John W. Welch and Matthew G. Wells, “Concrete Evidence for the Book of Mormon”, John W. Welch (editor), *Reexploring the Book of Mormon* (Salt Lake City and Provo: Deseret Book and the Foundation for Ancient Research and Mormon Studies, 1992). This discovery was a vindication of Heber J. Grant’s faith decades earlier: “When I was a young married man another young man who had received a doctor’s degree ridiculed me for believing in the Book of Mormon. He said he could point out two lies in that book. One was that the people had built their homes out of cement and that they were very skillful in the use of cement. He said there had never been found and never would be found, a house built of cement by the ancient inhabitants of this country, because the people of that early age knew nothing about cement. He said that should be enough to make one disbelieve the book. I said: ‘That does not affect my faith one particle. I read the Book of Mormon prayerfully and supplicated God for a testimony in my heart and soul of the divinity of it, and I have accepted it and believe it with all my heart.’ I also said to him, ‘If my children do not find cement houses, I expect that my grandchildren will.’ He said, ‘Well, what is the good of talking to a fool like that’” (Heber J. Grant, *Conference Report*, April 1929, p. 129).

55. John L. Sorenson, “Possible ‘Silk’ and ‘Linen’ in the Book of Mormon”, in Ibid, p. 162.

56. John L. Sorenson and Robert F. Smith, “Barley in Ancient America”, in Ibid. The barley in question hasn’t been found in Mesoamerica per se, but the fact remains that critics insisted there was no barley in the pre-Columbian Americas, and they were wrong. They would do well to remember that absence of evidence is not evidence of absence.

57. John L. Sorenson, “Nephi’s Garden and Chief Market”, in Ibid.

58. John L. Sorenson, “Once More, the Horse”, in Ibid. American horse bones dating to between the Ice Age and the arrival of the Spanish are still rare and anomalous, and haven’t overturned the theory that American horses were extinct during that time period. This doesn’t bother me because, like all Book of Mormon evidence, I don’t make them the basis for my faith.

59. This one has been mentioned by an Apostle: “The absence of evidence is not proof. Here’s one small example. Matthew Roper, in a FairMormon Blog on June 17, 2013, writes about a criticism that was repeated many times over the years about the mention of steel in the Book of Mormon. In 1884, one critic wrote, ‘Laban’s sword was steel, when it is a notorious fact that the Israelites knew nothing of steel for hundreds of years afterwards. Who, but as ignorant a person as Rigdon, would have perpetuated all these blunders.’ More recently Thomas O’Dea, in 1957, stated, ‘Every commentator on the Book of Mormon has pointed out the many cultural and historical anachronisms, such as steel. A steel sword of Laban in 600 B.C.’ We had no answer to these critics at the time, but, as often happens in these matters, new discoveries in later years shed new light. Roper reports, ‘it is increasingly apparent that the practice of hardening iron through deliberate carburization, quenching and tempering was well known to the ancient world from which Nephi came. ‘It seems evident’ notes one recent authority, ‘that by the beginning of the tenth century B.C. blacksmiths were intentionally steeling iron.’ In 1987, the *Ensign* reported that archaeologists had unearthed a long steel sword near Jericho dating back to the late 7th century B.C., probably to the reign of King Josiah, who died shortly before Lehi began to prophesy. This sword is now on display at Jerusalem’s Israel Museum, and the museum’s explanatory sign reads in part, ‘the sword is made of iron hardened into steel’” (D. Todd Christofferson, “The Prophet Joseph Smith”, BYU-Idaho devotional, 24 September 2013). For the full article and citations, see Matthew Roper, “Laban’s Sword of ‘Most Precious Steel’ (Howlers #5)”, FairMormon Blog, 17 June 2013, cross-posted on Ether’s Cave (blog).

60. Warren P. Aston, “The Arabian Bountiful Discovered? Evidence for Nephi's Bountiful”, *Journal of Book of Mormon Studies* 7:1, 1998, pp. 4-11. I like Jeff Lindsay’s satirical take on the matter in which Joseph Smith, while composing the Book of Mormon, asks his associates to tell him what the contemporary scholars say about Arabia and then disregards everything they say by deciding to put Bountiful and Nahom where they are in the book. Emma says, “But Joseph, the scholars seem to suggest that you have everything backwards, and that the journey as you propose is doomed to failure.” Martin Harris says, “Have it your way – but I still say that people will mock.” Joseph replies, “Perhaps at first. But imagine our good fortunes if later explorers find out there are places such as our lovely green Bountiful on the east coast after all? They’ll say I was a prophet!” (Jeff Lindsay, “One Day in the Life of Joseph Smith, Amazing ‘Translator’ of the Book of Mormon”, JeffLinday.com, 2003).

61. S. Kent Brown, “New Light: Nahom and the ‘Eastward’ Turn”, *Journal of Book of Mormon Studies* 12:1, 2003. For more on Old World Book of Mormon geography see Eugene England, "Through the Arabian Desert to a Bountiful Land: Could Joseph Smith Have Known the Way?," in Noel B. Reynolds and Charles D. Tate [editors], *Book of Mormon Authorship: New Light on Ancient Origins* (Salt Lake City and Provo: Bookcraft and BYU Religious Studies Center, 1996), p. 152. Be advised that a tourist site known as “Lehi’s cave”, while intriguing, most likely has nothing to do with the Book of Mormon (LaMar C. Bennett, “New Light: The So-Called Lehi Cave”, *Journal of Book of Mormon Studies* 8:1, 1999, pp. 64-65).

62. Matthew Roper gave one ludicrous example: “In company with two friends, I visited a small Salt Lake City bookstore operated by a well-known anti-Mormon couple [Jerald and Sandra Tanner]… During [a conversation with Sandra] the question arose as to what, in her view, would constitute acceptable evidence in support of the Book of Mormon. She struggled with this question for several minutes, so we asked if some kind of inscription would do. This would depend, she said. One of my companions then gave her a hypothetical scenario: Let’s suppose non-Mormon archaeologists found an inscription in highland Guatemala dating to the early sixth century B.C. with the name Nephi written in Reformed Egyptian. If verified, would such a find then constitute evidence for the Book of Mormon? Yet our kind host was unwilling to grant that even this would constitute such evidence, allowing only that, ‘it might be a topic of discussion.’ In leaving her store it was unclear what if anything would constitute such evidence” (Matthew Roper, “Right on Target: Boomerang Hits and the Book of Mormon”, 2001 FairMormon Conference).

63. Dallin H. Oaks, *Life’s Lessons Learned: Personal Reflections* (Salt Lake City: Deseret Book, 2011), pp. 58-59.

64. Dallin H. Oaks, “Alternate Voices”, 159th Annual General Conference of the Church of Jesus Christ of Latter-day Saints, 1 April 1989. Elder Oaks was speaking of member involvement in unofficial forums or events that discussed the Church, and lamenting that sometimes members who attempt to defend the Church make matters worse. He also spoke of a dilemma which, as a wannabe intellectual, is sometimes very pressing for me: “Some of life’s most complicated decisions involve mixtures of good and evil. To what extent can one seek the benefit of something good one desires when this can only be done by simultaneously promoting something bad one opposes? That is a personal decision, but it needs to be made with a sophisticated view of the entire circumstance and with a prayer for heavenly guidance. There are surely limits at which every faithful Latter-day Saint would draw the line. For example, in my view a person who has made covenants in the holy temple would not make his or her influence available to support or promote a source that publishes or discusses the temple ceremonies, even if other parts of the publication or program are unobjectionable. I would not want my support or my name used to further a public discussion of things I have covenanted to hold sacred.”

65. For example, proponents frequently look to a fictional concept of “irreducible complexity”, which holds that some organs and processes are too complex to have evolved through natural selection acting on earlier versions, because even one missing component would render them useless. This sounds logical or even obvious in theory, but in practice every single purported example of “irreducible complexity” – from the human eyeball to the Krebs cycle – has been debunked. See “God the Mechanic” in Kenneth R. Miller, *Finding Darwin’s God: A Scientist’s Search for Common Ground between God and Evolution*, (New York City: HarperCollins Publishers, 1999), pp. 129-164; and “Irreducible Complexity and Michael Behe – Do Biochemical Machines Show Intelligent Design?”, The TalkOrigins Archive.

66. Rodney Meldrum, “DNA Evidence for Book of Mormon Geography”, 2008; and Allen Wyatt, “A Faulty Apologetic for the Book of Mormon”, FairMormon Blog, 3 July 2008. The latter reports, “Mr. Meldrum’s DVD is essentially a four-hour video of a shorter “fireside” presentation he has been making around the nation for months. Mr. Meldrum presents himself as a researcher who has carefully and methodically analyzed information related to Native Americans, LDS history, scientific findings, and scripture. Indeed, he touts his video as ‘correlation and verification [of the Book of Mormon] through DNA, prophetic, scriptural, historical, climatological, archaeological, social, and cultural evidence.’ That’s a tall order, even for a four-hour video. It would appear that Mr. Meldrum has, in approximately three years of research, uncovered the ‘verification’ (read that as ‘proof’) that has somehow escaped prophets, leaders, scholars, and students for most of the past two centuries. And, he is on a mission to bring that knowledge to the world, starting with the Church.” The Church has no official position on Book of Mormon geography, nor does FairMormon endorse a particular model, but people need to know that Meldrum’s methodology is severely flawed and intellectually dishonest.

67. Many members associate the Mayans with the Nephites and the Olmecs with the Jaredites. It’s quite likely that we’ve uncovered Nephite and/or Jaredite cities and simply don’t recognize them as such; but assuming that every Mesoamerican archeological discovery has ties to the Book of Mormon is highly illogical.

68. Henry Eyring reports, “After I had been at the University of Utah for three or four years, one of the regents of the university, not a member of the Church, said, ‘Dr. Eyring, I can understand how you as a scientist are religious, but I can’t understand how you could believe in a revealed religion’” (Eyring, *Reflections of a Scientist*, p. 91). Years later Kenneth Miller explains: “Religion as *culture*, in the sense of Jewish culture, Islamic custom, and even Christian tradition, may be grudgingly accorded obligatory respect [in academia] – just enough, I am sure, to evade the nasty charge of cultural imperialism. But religion itself, genuine belief, just doesn’t belong” (Miller, *Finding Darwin’s God*, p. 19). Matt Walsh writes about another side effect of such liberal interpretations: “Jesus Christ is not a cosmic Mr. Rogers. He didn’t come to Earth to preach shallow platitudes about ‘being nice’ and ‘getting along.’ Modern society has tried to make Him soft, boring, one dimensional, moderate. Any time I write something about Christianity, I always hear from the Cliffs Notes theologians who try their best to boil Scripture down to something easy and agreeable. Here’s part of a message someone sent me a while ago that perfectly encapsulates this New Age interpretation of the Bible: ‘…People make Christianity more complicated than it needs to be. We just have to be nice to people, that’s it. Be nice to your neighbor and everything will be fine. That was Jesus’ whole point.’ No. Wrong. Horribly, horribly wrong. God didn’t send His only Son to suffer and die, all so that He could spread a flimsy message that an episode of Barney could effectively get across in 22 minutes. Sure, it’s nice to be nice to people. But is that the entire point of the universe? The Ultimate Truth is ‘niceness’, that’s it?” (Matt Walsh, “Jesus Christ is not Mr. Rogers”, Matt Walsh Blog, 4 September 2013).

69. Carl Mosser and Paul Owen, “Mormon Apologetic Scholarship and Evangelical Neglect: Losing the Battle and Not Knowing It?” 1997 Evangelical Theological Society Far West Annual Meeting, 25 April 1997. In 2002 the authors tried to rectify this problem themselves with a book called *The New Mormon Challenge*, but little if anything has changed with mainstream anti-Mormon literature.

70. Bridget Jack Meyers, “Memoirs of a former evangelical anti-Mormon”, ClobberBlog, 4 October 2008. Meyers is still an evangelical but attended BYU and attempts to improve the quality of Mormon-evangelical dialogues.

71. Joseph Fielding McConkie, “On Second Thought: Growing up as a son of Bruce R. McConkie”, quoted by John W. Redelfs in The Iron Rod (blog), 19 August 2005. Elder Smith expressed this view on at least a few occasions, usually making clear that it was merely an opinion. One quote popular among critics, allegedly from a Honolulu stake conference in May 1961, has him being more emphatic and stating “You can write it down in your books that this will never happen.” However, I don’t accept this as an accurate quote because not one critic has ever explained how it first came to be in circulation, and no actual transcript of the conference seems to exist anywhere.

72. David O. McKay, remarks at the funeral of May Anderson, 14 June 1946. Elder McKay believed in evolution but mostly kept this view to himself, especially when he became President of the Church, because he knew it would carry undue weight with the membership. Behind the scenes he worked to ameliorate the young Earth creationist influence of Elder Joseph Fielding Smith, who had no such qualms (Gregory A. Prince and William Robert Wright, *David O. McKay and the Rise of Modern Mormonism*, Salt Lake City: University of Utah Press, 2005, pp. 46-47).

73. One could argue that such evidences are necessary because the Book of Mormon, while spiritual in scope, also claims to be an authentic record of ancient peoples translated from physical metal plates that people saw and handled. If these claims are true than some physical evidence must exist. Members who don’t accept the historicity of the book are still welcome in the Church even though their views aren’t endorsed, but I find that view illogical, and agree with the sentiment of Elder Jeffrey R. Holland: “Now, in terms of more modern theories, there are those who say it's more mythical literature and spiritual, and not literal. That doesn’t work for me. I don’t understand that, and I can’t go very far with that, because Joseph Smith said there were plates, and he said there was an angel. And if there weren't plates and there wasn't an angel, I have a bigger problem than whether the Book of Mormon is rich literature… I have to go with what the prophet said about the book, about its origins, about the literalness of the plates, the literalness of the vision – and then the product speaks for itself… [But i]f someone can find something in the Book of Mormon, anything that they love or respond to or find dear, I applaud that and say more power to you. That's what I find, too. And that should not in any way discount somebody's liking a passage here or a passage there or the whole idea of the book, but not agreeing to its origin, its divinity” (Jeffrey R. Holland, PBS Interview, 4 March 2006).

74. Eyring, *Reflections of a Scientist*, pp. 102-103. “Muddling along after truth as best I can” is exactly what I do, too. I hope I can inspire people and broaden their horizons but anyone who looks at me and thinks I’ve got it all figured out is sadly mistaken. I’m just trying to gather all the “good and true principles” I can find and make some sense of this crazy world, and I’m very grateful to have God leading me through the process whenever it really matters.

75. Ibid, p. 2. I include quotes like this as a disclaimer of sorts. Obviously I try my best to reduce the conflicts, and that’s part of what this essay is for, but I suffer no illusions that I or anyone else is going to resolve everything in this life. In fact, while I was at the Merrill Cazier Library getting books to cite from, I looked at just one of their rooms and thought, “Imagine – if you somehow had the time and mental capacity to read every one of these books, and internalize all their true facts and principles and reject the false ones, still your knowledge and wisdom would be a statistically insignificant fraction of God’s.” Sometimes I think we overemphasize this point and discourage our own rational inquiry or theorizing, but the alternative – thinking that we do, or can, know everything – would be far worse.

76. David H. Bailey, “Science vs. Religion: Can this Marriage Be Saved?”, Science and Mormonism: Cosmos, Earth, & Man Conference, 9 November 2013. This presentation and Dr. Bailey’s website first introduced me to many of the quotes used in my essay, including the Hugh B. Brown quote that inspired me to write it in the first place. Thank you, Dr. Bailey.

77. Heber J. Grant, Anthony W. Ivins, and Charles W. Nibley, “Memo from the First Presidency to the Council of the Twelve, the First Council of the Seventy, and the Presiding Bishopric”, 5 April 1931. At the suggestion and permission of President Gordon B. Hinckley, this extract was included in the *Encyclopedia of Mormonism* entry for “Evolution”. It’s worth noting here that “race” is not a biological distinction.

78. Talmage, “The Earth and Man”. Obviously this opinion wasn’t shared by some other Apostles, who felt that these scriptures were entirely literal, but because Elder Talmage had *both* theological and scientific expertise I feel that his perspective was more balanced and accurate.

79. John Paul II, “Cosmology and Fundamental Physics”, Solemn Audience, 3 October 1981.

80. Robert H. Brom, Bishop of San Diego, asserted “The Galileo case, for many anti-Catholics, is thought to prove that the Church abhors science, refuses to abandon outdated teachings, and is not infallible. For Catholics, the episode is often an embarrassment. It shouldn’t be.” He then explains that Galileo was treated very well, that neither the Pope nor an ecumenical council were involved in the verdict, and that if the Church had endorsed his views they would have been in error because he was not entirely correct. Robert H. Brom, “The Galileo Controversy”, Catholic Answers to Explain and Defend the Faith, 10 August 2004.

81. Stephen M. Barr, *Modern Physics and Ancient Faith* (University of Notre Dame Press, 2006). Augustine felt that the seven days in the creation account represented a spiritual framework rather than a passage of time, and that everything in the universe was in fact created by God simultaneously.

82. A sarcastic demotivational poster on the internet expresses the sentiment thusly: “CREATIONISM: Because desert goat herders living in tents 3000 years ago knew more about the cosmos and biology than modern day [sic] scientists.”

83. Of course, many of these insights rely on further reading and inference from other books, but that’s part of the joy of scripture study. See also Jeffrey R. Bradshaw, “Science and Genesis: A Personal View”, Science and Mormonism: Cosmos, Earth, & Man Conference, 9 November 2013. Dr. Bradshaw points out that all scriptures *are* “literal” to those who wrote them; they represent how things looked from the authors’ perspectives.

84. Harold B. Lee, *Teachings of Harold B. Lee* (Salt Lake City: Bookcraft, 1996), p. 29. Obviously President Lee was speaking from a religious perspective, not trying to stifle scientific inquiry, so I see no conflict in accepting this quote *and* the research into the world’s origins. I know first and foremost that God created the world, so if the scientific consensus as to *how* it happened ever changes, my testimony remains.

85. Rachel Held Evans, “A Response to Ken Ham: Let’s Make Peace”, Rachel Held Evans (blog), July 2010. “**The reason I speak out about this issue is not because I am passionately committed to the theory of evolution; it’s because I am passionately committed to the fact that it’s not worth leaving the faith over!”**

86. Armand Mauss, *The Angel and the Beehive: The Mormon Struggle with Assimilation* (Urbana-Champaign: University of Illinois Press, 1994), p. 102. Though I have no wish to be an “ark-steadier”, I must endorse this quote because it’s been accurate in some (not all) of my experiences with the Logan LDS Institute. No one need consider me an apostate for acknowledging that we have some cultural problems.

87. Ibid, p. 192. I must endorse this quote as well because I once *was* a disillusioned fundamentalist, and thousands of other disillusioned fundamentalists have left the Church. See Peter Henderson and Kristina Cooke, “Special report – Mormonism besieged by the modern age”, *Reuters*, 30 January 2012; and Michael De Groote, “Mormons opening up in an Internet world”, *Deseret News*, 1 February 2012. Both articles cite then-Church Historian Marlin K. Jensen, who spoke candidly on the problem and efforts to ameliorate it. But see also Stephen Smoot, “Reports of the Death of the Church are Greatly Exaggerated”, FairMormon Blog, 15 January 2013.

88. This isn’t a technical term, and its exact definition may vary depending on who you ask. Believers should also be careful not to use it as an ad hominem attack against legitimate science.

89. See Daniel C. Peterson, “Reflections on Secular Anti-Mormonism”, FARMS Review 17:2, pp. 423-450; and Amy L. Williams, “Answering New Atheism and Seeking a Sure Knowledge of God”, Science and Mormonism: Cosmos, Earth, & Man Conference, 9 November 2013. See also my review of Sam Harris, “Reading ‘Letter to a Christian Nation’”, Captain’s Blog, 21 March 2013. <http://christopherrandallnicholson.webs.com/apps/blog/show/24937315-reading-letter-to-a-christian-nation->. This review doesn’t address all the accusations in question but points out several flaws of Harris’ methodology.

90. Terry Eagleton, “Lunging, Flailing, Mispunching”, *London Review of Books* 28:20, 19 Ocober 2006, pp. 32-34. He continues, “Card-carrying rationalists like Dawkins, who is the nearest thing to a professional atheist we have had since Bertrand Russell, are in one sense the least well-equipped to understand what they castigate, since they don’t believe there is anything there to be understood, or at least anything worth understanding. This is why they invariably come up with vulgar caricatures of religious faith that would make a first-year theology student wince. The more they detest religion, the more ill-informed their criticisms of it tend to be.” Another passage I particularly like: “Dawkins considers that all faith is blind faith, and that Christian and Muslim children are brought up to believe unquestioningly. Not even the dim-witted clerics who knocked me about at grammar school thought that. For mainstream Christianity, reason, argument and honest doubt have always played an integral role in belief. (Where, given that he invites us at one point to question everything, is Dawkins’s own critique of science, objectivity, liberalism, atheism and the like?)”

91. Daniel C. Peterson, “Editor’s Introduction: God and Mr. Hitchens”, *FARMS Review* 19:2, pp. xi-xlvi. He also gave this as a presentation at the 2007 FairMormon Conference. My fellow Latter-day Saints need only read the brief portions of Hitchens’ book that deal with our own religion to immediately realize he was shamelessly making things up, though I read over half of it before getting bored and moving on. Incidentally, I think a militant atheist named Christopher is inherently amusing because the name means “Christ-bearer”.

92. 2 Nephi 9:28-29.

93. As already mentioned, this is a huge problem plaguing Christianity today. Elder Joseph Fielding Smith summed up this attitude of facing a dichotomy: “I say most emphatically, you cannot believe in this theory of the origin of man, and at the same time accept the plan of salvation as set forth by the Lord our God. You must choose the one and reject the other, for they are in direct conflict and there is a gulf separating them which is so great that it cannot be bridged, no matter how much one may try to do so” (*Doctrines of Salvation* Volume 1, p. 141). People who keep religion and science entirely compartmentalized evidently share this view of a “gulf” but try to avoid dealing with it, perhaps wary of “irrational scholarship” and “phony religion” like Elder Oaks warned about. If that works for them, great, but if not they’re in trouble.

94. The most common (but not first) account of this alleged exchange is found in W. W. Rouse Ball, “Pierre-Simon Laplace (1749-1827)”, *A Short Account of the History of Mathematics* (Dover, 1908). Ball claims that when Napoleon told fellow astronomer Joseph-Louis Lagrange about it, the latter exclaimed “*Ah! c'est une belle hypothèse; ça explique beaucoup de choses* – Ah! It is a fine hypothesis; it explains many things.” Astronomer Hervé Faye, however, disputed the entire incident: “In fact Laplace never said that. Here, I believe, is what truly happened. Newton, believing that the secular perturbations which he had sketched out in his theory would in the long run end up destroying the solar system, says somewhere that God was obliged to intervene from time to time to remedy the evil and somehow keep the system working properly. This, however, was a pure supposition suggested to Newton by an incomplete view of the conditions of the stability of our little world. Science was not yet advanced enough at that time to bring these conditions into full view. But Laplace, who had discovered them by a deep analysis, would have replied to the First Consul that Newton had wrongly invoked the intervention of God to adjust from time to time the machine of the world (*la machine du monde*) and that he, Laplace, had no need of such an assumption. It was not God, therefore, that Laplace treated as a hypothesis, but his intervention in a certain place” (Hervé Faye, *Sur l’origine du monde: theories cosmogoniques des anciens et des modernes*, Paris: Gauthier-Villars, 1884, pp. 109-111).

95. Not to be confused with Apollo, to whom this sun-pulling job is often wrongly attributed. “If the sun’s place in human imagination was once divine, its demotion to the status of mere matter surely began when Anaxagoras argued in 434 B.C. that the sun was ‘just’ a ball of fire floating in the air above the earth’s surface… [His] contemporaries were not at all amused by his calculations. He was condemned by the authorities and banned for life from the City of Athens, such was the rage of its citizens against the notion that the sun could be explained as mere matter” (Miller, *Finding Darwin’s God*, pp. 23-24).

96. Charles Alfred Coulson, *Science and Christian Belief* (Oxford: Oxford University Press, 1955), pp. 32, 35.

97. Eberhard Bethge (editor) and Reginal H. Fuller (translator), letter from Dietrich Bonhoeffer to Eberhard Beethge, 29 May 1944, *Letters and Papers from Prison* (New York City: Touchstone, 1997), pp. 310-312. Bonhoeffer also felt that religion was the “garment” of faith and that Christianity should move beyond it to reach its full potential. In this we see a parallel to the LDS distinction between the “Church” and the “gospel”; indeed, as Elder Poelman indicated, the institutional Church will someday be unnecessary, but not until God tells us it is, which probably won’t be until after the Millennium.

98. James E. Talmage, *The Articles of Faith: A Series of Lectures on the Principal Doctrines of the Church of Jesus Christ of Latter-day Saints* (Church of Jesus Christ of Latter-day Saints: Salt Lake City, 1899), p. 166.

99. Eyring, *Reflections of a Scientist,* p. 84. Eyring seems to have been thinking in terms of God the Father or the Son rather than the Holy Ghost like Elder Talmage, but because the members of the Godhead are one in purpose the general principle applies in either case.

100. Doctrine and Covenants 88:41-43.

101. Alma 30:44. This isn’t really a new or different interpretation, but I hope the modernized terminology helps people see it with fresh eyes.

102. Romans 1:20. For a couple of psychological analyses of this phenomenon, see Justin L. Barrett, *Why Would Anyone Believe in God?* (Lanham: Altamira Press, 2004); and Justin L. Barrett, *Born Believers: The Science of Children’s Religious Belief* (New York City: Free Press, 2012).

103. Alma 29:8.

104. Spencer W. Kimball, N. Eldon Tanner, and Marion G. Romney, “First Presidency Statement”, 15 February 1978. Specifically the statement says “The great religious leaders of the world such as Mohammed, Confucius, and the Reformers, as well as philosophers including Socrates, Plato, and others, received a portion of God's light. Moral truths were given to them by God to enlighten whole nations and to bring a higher level of understanding to individuals.” Background information for the first missionary lesson in *Preach My Gospel* mentions John Wycliffe, Martin Luther, William Tyndale, John Calvin, Buddha, Confucius, and Mohammed (*Preach My Gospel: A Guide to Missionary Service*, 2004, pp. 45-46). I personally accept Mohammed as a true prophet and the Qur’an as an inspired work, though I believe it was only intended for a certain time and place and probably contains errors in its current form. This may partially explain why it’s supposed to be read in its original Arabic.

105. David W. Evans (transcriber), *Journal of Discourses* Volume 13, 11 July 1869, p. 140. A year later President Young said “[I]t is hard to get the people to believe that God is a scientific character, that He lives by science or strict law, that by this He is, and by law he was made what He is; and will remain to all eternity because of His faithful adherence to law. It is a most difficult thing to make the people believe that every art and science and all wisdom comes from Him, and that He is their Author” (David W. Evans, transcriber, *Journal of Discourses* Volume 13, 13 November 1870, p. 306).

106. Talmage, *The Articles of Faith*, p. 202. Henry Eyring, another scientist, had a similar but different understanding: “Now, what about the miracles of the Bible? Did Moses really turn the Nile to blood, or part the Red Sea? Did manna fall from heaven? First of all, the topic is hardly worth talking about. I don’t know the answer, and it doesn’t make any difference anyway. These are historical events and can’t be confirmed by laboratory experimentation, but if someone could prove to me *conclusively* that any such miracles in the Bible didn’t really happen, but was just hyperbole on the part of the writer or some later translator, I wouldn’t lose my testimony. After all, I’m only interested in finding out what the truth is. The only miracle I can think of that makes a difference is the resurrection of Jesus Christ. Whether or not manna really fell from heaven or was just the dried sap of the tamarisk plants in the area doesn’t seem to me to have much religious significance. Second, the Creator of the universe almost certainly knows enough about how things work to control and manipulate events to meet his purposes, either within the rules of natural law or outside them, if necessary. Now, as a scientist, I’m not very enthusiastic about the notion of shoving natural laws aside. I prefer to keep things orderly and predictable. But, as we’ve noted already, I suspect the Lord can send messages faster than the speed of light, and so, even if natural law, as we understand it, had to be suspended in order for the Savior to walk on the Sea of Galilee, I certainly don’t see even that as being an insurmountable problem for the Creator of the universe” (Eyring, *Reflections of a Scientist*, p. 93). Perhaps a reconciliation of his view with Elder Talmage’s is to be found in the key phrase “as we understand it”.

107. Henry Drummond, *The Lowell Lectures on the Ascent of Man* (New York: James Pott and Co., 1904), p. 333. This seems to be the earliest known reference to a “God of the gaps”. Although the science of these lectures has long been obsolete, this theological observation is timeless. He adds on the next page: “Those who yield to the temptation to reserve a point here and there for divine interposition are apt to forget that this virtually excludes God from the rest of the process. If God appears periodically, he disappears periodically. If he comes upon the scene at special crises he is absent from the scene in the intervals. Whether is all-God or occasional-God the nobler theory? Positively, the idea of an immanent God, which is the God of Evolution, is infinitely grander than the occasional wonder-worker who is the God of the old theology. Negatively, the older view is not only the less worthy, but it is discredited by science” (Ibid, p. 334). LDS biologist Steven Peck uses an analogy that Drummond could never have fathomed: “And I always ask my students… which programmer is greater? The programmer who can program *all* the kinds of games – the Sim[s] games, the Halo, whatever there is in games, you could ask my kids better than me – but, can program every single one of those games. That’s an amazing programmer. I agree. But what about the programmer who’s written a program that she types ‘go’, and *all* of the programs – Halo, and Sims – emerge from that initial program. That’s an *amazing* programmer. That’s an even better programmer. That’s why I don’t need an intelligent design God who has to keep reaching down and tinkering with things to get things to go right” (Steven L. Peck, “Why Evolution and LDS Thought are Fully Compatible”, Science and Mormonism: Cosmos, Earth, & Man Conference, 9 November 2013). See also Chapters 8 and 9 in Miller, *Finding Darwin’s God*. He’s a Catholic so I can’t endorse all of his theology, but he raises some good points and food for thought. I recommend the entire book.

108. John McTaggart Ellis McTaggart, *Some Dogmas of Religion* (London: Edward Arnold, 1906), p. 165. McTaggart examines both a determinist and indeterminist view of God and concludes that the former has a more tenable position, but that neither can be omnipotent. “Indeed, if God is omnipotent, it is impossible that he can be good at all.” This is not the case for Mormons, who view omnipotence differently. Though He is all-powerful from our perspective, there are limitations on what He can do – for example, “What, do ye suppose that mercy can rob justice? I say unto you, Nay; not one whit. If so, God would cease to be God” (Alma 42:25) and “And he answered: Yea, Lord, I know that thou speakest the truth, for thou art a God of truth, and canst not lie” (Ether 3:12). Perhaps God *does* have the power to take away either our inclination or our freedom to sin, but either would rob us of our own development and maybe even be inherently wicked.

109. Thomas Aquinas, “Whether Man Has Free Will?”, *Summa Theologica* Volume 1 (New York Benziger Brothers, 1947), p. 418.

110. Doctrine and Covenants 93:29-31. This simple resolution to a vexing problem (which has bothered me in the past) was first brought to my attention by Terryl Givens, “Lightning Out of Heaven: Joseph Smith and the Forging of Community”, BYU forum address, 29 November 2005.

111. Larson, “King Follett Discourse”, p. 11.

112. Dennis J. Packard, in Daniel H. Ludlow (editor), *Encyclopedia of Mormonism* Volume 2 (New York City: Macmillan, 1992), p. 692. Though not a standard work of the Church, the *Encyclopedia of Mormonism* has been so thoroughly vetted and correlated that it is a reliable authority on any doctrinal matter contained therein.

113. James N. Hubler, “Creatio ex Nihilo: Matter, Creation, and the Body in Classical and Christian Philosophy through Aquinas”, PhD dissertation, University of Pennsylvania, 1995. Nowadays, however, *creatio ex nihilo* is a ubiquitous doctrine of mainstream Protestantism, as denoted by its casual reference in the first episode of “VeggieTales” when Larry the Cucumber explains “God made all those stars out of nothing! He just went *thhpt* and there they were!” Junior Asparagus’ astonished response of “No way!” is ironically appropriate in a way the scriptwriters didn’t intend (Mike Nawrocki and Lisa Vischer, “Where’s God When I’m S-Scared?”, VeggieTales, 1993).

114. Accounts of this metaphor or variations thereof go back well over two centuries, making it one of the oldest urban legends still in existence, but the most famous version is given by Stephen Hawking: “A well-known scientist (some say it was Bertrand Russell) once gave a public lecture on astronomy. He described how the earth orbits around the sun and how the sun, in turn, orbits around the center of a vast collection of stars called our galaxy. At the end of the lecture, a little old lady at the back of the room got up and said: ‘What you have told us is rubbish. The world is really a flat plate supported on the back of a giant tortoise.’ The scientist gave a superior smile before replying, ‘What is the tortoise standing on?’ ‘You're very clever, young man, very clever,’ said the old lady. ‘But it’s tortoises all the way down!’” (Stephen Hawking, *A Brief History of Time*, New York City: Bantam Books, 1988, p. 1).

115. Alma 40:8. In context this is an offhand mention while Alma is speaking on another topic entirely, and perhaps its meaning can be debated, but it seems pretty straightforward to me.

116. Non-temple marriages end at death even though “time” (to which they apply) goes on, so it seems to me that the spirits of the deceased individuals have probably, in going to the spirit world, *left* time and gone to eternity.

117. Nola Taylor Redd, “Einstein’s Theory of General Relativity”, SPACE.com, 18 September 2012. One unfortunate application of this theory is that, if entirely true, it means we’ll never be able to travel past the speed of light. I want my upcoming novel *Space Girls* (working title) to be scientifically plausible so I had to address this issue: “‘And we are flying in a spaceship,’ said Quaileek. ‘Technology that your ancestors would seldom have dreamed of and most certainly would consider magic. What is more, we are traveling faster than the speed of light! The *speed of light!* Can you even wrap your head around what a revolutionary achievement that was? Not so long ago, your own scientists claimed it was impossible.’ ‘Yeah,’ said Jane with a grin. ‘Up yours, Einstein.’”

118. Hermann Minkowski, “Space and Time”, 80th Assembly of German Natural Scientists and Physicians, 21 September 1908; printed in Hendrik A. Lorentz, Albert Einstein, Hermann Minkowski, and Hermann Weyl, *The Principle of Relativity: A Collection of Original Memoirs on the Special and General Theory of Relativity* (Dover, 1952), p. 80. Like gravity and evolution, the concept of relativity was known before an accepted theory was postulated to explain it.

119. See for example Natalie Wolchover, “A Jewel at the Heart of Quantum Physics”, *Quanta* Magazine, 17 September 2013. “Physicists have discovered a jewel-like geometric object that dramatically simplifies calculations of particle interactions and challenges the notion that space and time are fundamental components of reality.” Of course, one has to ask oneself: what exactly is “reality”?

120. Moses 1:3; a similar concept is iterated in over two dozen other scriptures. See “God, Eternal Nature of” in the Topical Guide of the LDS scriptures.

121. This discourse taught that God was once a man: “In order to understand the subject of the dead and to speak for the consolation of those who mourn for the loss of their friends, it is necessary to understand the character and being of God. For I am going to tell you how God came to be God and what sort of being He is. For we have imagined that God was God from the beginning of all eternity. I will refute that idea and take away the veil so you may see. Truth is the touchstone. These things are incomprehensible to some, but they are simple. The first principle of truth and of the Gospel is to know for a certainty the character of God, and that we may converse with Him the same as one man with another, and that He was once a man like one of us and that God Himself, the Father of us all, once dwelled on an earth the same as Jesus Christ himself did in the flesh and like us.” Joseph Smith implied, however, that God’s mortal existence had more in common with Christ’s than that of a typical mortal: “As the Father has power in Himself, even so has the Son power in himself. To do what? Why, what the Father did. That answer is obvious; even in a manner to lay down His body and take it up again. Jesus, what are you going to do? ‘To lay down my life as my Father laid down His body that I might take it up again.’ Do you believe it? If you don’t believe it, you don’t believe the Bible. The Scriptures say and I defy all hell – all the learned wisdom and records and all the combined powers of earth and hell together to refute it!” (Larson, “King Follett Discourse”, pp. 7-8).

122. Lorenzo Snow was inspired with this couplet before leaving on a mission to the British Isles, while listening to a sermon on Christ’s parable of the laborers. “While attentively listening to his explanation, the Spirit of the Lord rested mightily upon me – the eyes of my understanding were opened, and I saw as clear as the sun at noonday, with wonder and astonishment, the pathway of God and man. I formed the following couplet which expresses the revelation, as it was shown me, and explains Father Smith’s dark saying to me at a blessing meeting in the Kirtland Temple, prior to my baptism… I felt this to be a sacred communication, which I related to no one except my sister Eliza, until I reached England, when in a confidential private conversation with President Brigham Young, in Manchester, I related to him this extraordinary manifestation” (Eliza R. Snow, Biography and Family Record of Lorenzo Snow (Salt Lake City: Deseret News Co., 1884, pp. 46-47). “Soon after his return from England, in January, 1843, Lorenzo Snow related to the Prophet Joseph Smith his experience in Elder Sherwood’s home. This was in a confidential interview in Nauvoo. The Prophet’s reply was: ‘Brother Snow, that is a true gospel doctrine, and it is a revelation from God to you’” (LeRoi C. Snow, *Improvement Era*, June 1919, p. 656).

123. David van Biema, “Kingdom Come”, *TIME* 56, 4 August 1997. Some of President Hinckley’s words were omitted from the report to make it appear as if he was second-guessing the doctrine of theosis altogether, and critics of the Church seized on this. In the following General Conference he said: “I personally have been much quoted, and in a few instances misquoted and misunderstood. I think that's to be expected. None of you need worry because you read something that was incompletely reported. You need not worry that I do not understand some matters of doctrine. I think I understand them thoroughly, and it is unfortunate that the reporting may not make this clear. I hope you will never look to the public press as the authority on the doctrines of the Church” (Gordon B. Hinckley, “Drawing Nearer to the Lord”, 167th Semiannual General Conference of the Church of Jesus Christ of Latter-day Saints, October 1997).

124. God gives you as much love and attention as if you were the only person in the universe, and Christ would still have carried out the Atonement even if you were the only person who needed it. Unfortunately I’m having trouble finding direct quotes for these specific assertions, but I should think they’re fairly obvious.

125. Abraham 3:3.

126. 1 Corinthians 13:12.

127. <http://www.youtube.com/watch?v=AAsx6Q3Sq8M>. The sound quality of this video is inferior to another one, but I like it better for some reason.

128. Tony Phillips, “The Sounds of Interstellar Space”, *NASA Science News*, 1 November 2013. “Scifi [sic] movies are sometimes criticized when explosions in the void make noise. As the old saying goes, ‘in space, no one can hear you scream.’ Without air there is no sound. But if that’s true, what was space physicist Don Gurnett talking about when he stated at a NASA press conference in Sept. 2013 that he had heard ‘the sounds of interstellar space?’ It turns out that space *can* make music… if you know how to listen.” The “music” in question is kind of creepy, and it’s probably a blessing that astronauts floating in space can’t hear it.

129. Douglas Adams, *The Restaurant at the End of the Universe* (London: Pan Books Ltd., 1980), p. 30. The quote continues: “The judges concurred, and in a moving speech held that Life itself was in contempt of court, and duly confiscated it from all those there present before going off to enjoy a pleasant evening's ultragolf.”

130. Doctrine and Covenants 25:12.

131. Lincoln was a skeptic during his youth but became more interested in religious matters after the deaths of two children drove him to do some soul-searching. As President of the United States he referenced God and religion in major speeches, but how much of that stemmed from actual conviction is up for debate. He was a great man, but he was also a politician, after all. See Allen C. Guelzo, “Abraham Lincoln and the Doctrine of Necessity”, Journal of the Abraham Lincoln Association 18:1, winter 1997. Mark A. Noll, “The Puzzling Faith of Abraham Lincoln”, *Christian History* 33, January 1992.

132. Manuel Luz, *Imagine That: Discovering Your Unique Role as a Christian Artist* (Chicago: Moody Publishers, 2009), p. 147. This quote is cited on a hundred websites but I can’t find the original source, so take it with a grain of salt. Lincoln is also purported to have said “The trouble with quotes on the internet is that they can be difficult to verify”, but that was actually Thomas Jefferson. One source attributes the first quote to “Blackie” and continues “A scoffing Raphael or Michael Angelo [sic] is not conceivable” (Charles Noel Douglas [compiler], *Forty Thousand Quotations: Prose and Poetical: Choice Extracts on History, Science, Philosophy, Literature, etc. Selected from the Standard Authors of Ancient and Modern Times, Classified According to Subject*, New York City: Halcyon House, 1917). Regardless of who said it, it rings true. “‘The loss of faith,’ Hitchens says, ‘can be compensated by the newer and finer wonders that we have before us, as well as by immersion in the near-miraculous work of Homer and Shakespeare and Milton and Tolstoy and Proust, all of which was also “manmade”’ (p. 151). But what is Homer without religion? What do you make of his story of the Trojan War, or of the wanderings of Odysseus, without the gods? You lose about half of the narrative right there. And Tolstoy without religion? He would have been shocked by that. But the one that really gets me is *Milton* without religion… But imagine Dante without religion! I have tried to imagine Chaucer’s Canterbury Tales without religion. It is a story about pilgrims; but, absent religion, pilgrimage to what? Where are they going? Imagine a world without Bach’s *St. Matthew Requiem*, without Handel’s *Messiah*, without Mozart’s *Requiem*, without Igor Stravinsky, without John Travener, without John Coltrane – heck, even without Brian Wilson. Without cathedrals. Without the Blue Mosque in Istanbul. I mean, it’s all gone. You cannot imagine that you can just get rid of all the bad parts of religion and you are still going to have all the good things. All of it has to go. What are you left with? Instead of the Cathedral of Chartres maybe a Quonset hut, something purely functional” (Peterson, “God and Mr. Hitchens”, pp. xxvi-xxvii).

133. Many of the biblical paintings, including the iconic one of Christ descending for His Second Coming with trumpeting angels on both sides, were commissioned from a Seventh-day Adventist named Harry Anderson in the 1960s. He was asked to do Restoration and Book of Mormon paintings as well but refused to paint things he didn’t believe in. The angels in the aforementioned painting originally had wings, but LDS artist Grant Romney Clawson painted over them.

134. Commissioned for the Church of Our Lady in Copenhagen, Denmark and standing over three meters high, this statue was completed in 1821 and became famous over seventy years later when an American textbook claimed that it was “considered the most perfect statue of Christ in the world” (Fanny E. Coe and Larkin Dunton [editor], *The World and Its People Book V: Modern Europe*, New York: Silver, Burdett & Co., 1896, p. 126). The *Encyclopedia of Mormonism* notes: “These white carrara marble statues of Christ, with his hands outstretched, inviting all to come to him, help present the central doctrine of the Church: that Jesus of Nazareth is the Son of God and the Savior and Redeemer of the world. The first such statue acquired by the Church was a gift of Stephen L Richards, First Counselor to President David O. McKay (1951-1959). In 1966 this heroic-size (11 feet, 1 inch) Christus was placed in the North Visitors Center on Temple Square in Salt Lake City. The second Christus was commissioned for display in the Church's pavilion at the New York World's Fair (1964-1965) and was sculpted by Aldo Rebachi of Florence, Italy. It was intended to help visitors understand that Latter-day Saints (or Mormons) are Christians. This statue was later placed in the Visitors Center on the grounds of the Los Angeles Temple” (Florence S. Jacobsen in Ludlow, *Encyclopedia of Mormonism* Volume 1, p. 273).

135. In addition to his Book of Mormon paintings, Friberg is famous for patriotic art like “The Prayer at Valley Forge”, and created concept art for Cecil B. DeMille’s “The Ten Commandments”. See Trent Toone, “Insight into Arnold Friberg’s Book of Mormon paintings”, *Deseret News*, 21 May 2012.

136. “Legacy” (1990), “The Testaments of One Fold and One Shepherd” (2000), “Finding Faith in Christ” (2003), and “Joseph Smith: The Prophet of the Restoration” (2005) are just some of the more famous. One of my personal little-known favorites is “How Rare a Possession” (1987), which tells the conversion stories of Parley P. Pratt and Vincenzo di Francesca – the latter case being particularly interesting, as he found a Book of Mormon in the trash with no cover or title page and preached from it as he tried unsuccessfully for years to find out what church it had come from and then, once he had, to secure baptism. See Janet Thomas, “How Rare a Possession”, *New Era*, November 1987. Unofficial LDS films also have a place. My favorite of all time is the hilarious “Mobsters and Mormons” (2005), but my favorite from a religious standpoint is “The Best Two Years” (2003). I haven’t yet seen “The Saratov Approach” (2013) but I hope to soon. Don’t bother with “The Book of Mormon Movie, Volume 1: The Journey” (2003), because Mark Twain’s famous quip about the Book of Mormon being “chloroform in print” applies tenfold to this movie, except with film. There’s a reason the sequel has been stuck in development hell.

137. William Drysdale, *Proverbs from Plymouth Pulpit: Selected from the Writings and Sayings of Henry Ward Beecher* (New York, D. Appleton and Co.: 1887), p. 229.

138. Laura Deutch, “Redefining Reality: An Analysis of L’Age d’Or”, 5 November 1998.

139. “Mormonism and history/Accuracy of Church art”, FairMormon Answers, updated 11 September 2013. A few example images from various times and places are given; of course, not even the most “traditional” Nativity scene by American standards is historically accurate (a similar case is the ubiquitous Caucasian Jesus in Western art). In fairness, the difficulty arises because this is a well-known story throughout all Christendom and no one could ever accuse an artist of “hiding” something, whereas the details of Joseph Smith’s translation process are less known even within the Church.

140. Anonymous, “A Conversation with Robert J. Matthews”, *Journal of Book of Mormon Studies* 12:2, 2003, pp. 88-92. For a more satirical look at this problem see Thomas Hatton, “Absurd Moments in Church Art Part 2: Nephi’s Legacy”, Rational Faiths (blog), 3 September 2012. “Nephite fashion seems to be a mixed bag. Artists can’t seem to decide on what else Nephites could have worn. So, if you’d like to dress like a Nephite, it looks like you’re in luck, because you can wear anything – a shower curtain, a kimono, a toga, a McDonald’s themed cape, a miniskirt, scuba diving gear… Really, put on anything. Just don’t forget your headband.”

141. The most famous account of the hat: “Joseph Smith would put the seer stone into a hat, and put his face in the hat, drawing it closely around his face to exclude the light; and in the darkness the spiritual light would shine. A piece of something resembling parchment would appear, and on that appeared the writing. One character at a time would appear, and under it was the interpretation in English. Brother Joseph would read off the English to Oliver Cowdery, who was his principal scribe, and when it was written down and repeated to Brother Joseph to see if it was correct, then it would disappear, and another character with the interpretation would appear. Thus the Book of Mormon was translated by the gift and power of God, and not by any power of man” David Whitmer, *An Address to All Believers in Christ* (Richmond, 1887), p. 12. Other accounts corroborate this one but some conflict with it. Joseph Smith himself said very little about the particulars of the translation process, which was obviously very sacred, and the Church has followed his lead in usually referring to it only as “the gift and power of God”. Nonetheless, the above passage and others like it have occasionally been cited by General Authorities in church publications, so it’s a shame that many members learned about it for the first time in an episode of “South Park” (“All About Mormons”, South Park, 19 November 2003). See Brant A. Gardner, “Joseph the Seer – or Why Did He Translate With a Rock in His Hat?”, 2009 FairMormon Conference; and Roger Nicholson, “The Spectacles, the Stone, the Hat, and the Book: A Twenty-first Century Believer’s View of the Book of Mormon translation”, *Interpreter: A Journal of Mormon Scripture* 5, pp. 121-190, 7 June 2013.

142. “Accuracy of Church art”. One reason that certain details concerning Joseph Smith’s polygamy, seer stones, etc. have long been glossed over in many church publications (though still occasionally mentioned) is that they simply strike modern people as weird (often through the logical fallacy of “presentism” which anachronistically applies modern cultural norms and standards to people of other eras) but contribute very little to the doctrines of the gospel as we need to learn them now. The drawback has outweighed the benefit; but now, with all information readily available on the internet, that is no longer the case and many have accused the Church of “hiding” its history.

143. Spencer W. Kimball, “The Gospel Vision of the Arts”, *Ensign* July 1977, adapted from “Education for Eternity” in *Speeches of the Year 1967-1968*, pp. 12-19. I believe this prophecy is in process of fulfillment with such achievers as Orson Scott Card, Alex Boyé, Brandon Flowers, the Piano Guys, and Lindsey Stirling. I suppose one could add Stephanie Meyer to this list if one really wanted to. With my own literary endeavors I hope to someday be on it as well.

144. Trevor Price, “Terryl Givens on Mormon Universalism”, partial transcript of “Mormon Stories” podcast interview with John Dehlin, 3 December 2011. Now that I’ve mentioned that podcast I should also warn that not all of the episodes are as worthwhile. See Gregory L. Smith, “Dubious ‘Mormon’ Stories: A Twenty-First Century Construction of Exit Narratives”, *Interpreter: A Journal of Mormon Scripture*, 23 February 2013. For Dehlin’s attempts to suppress that review, see Gregory L. Smith, “The Return of the Unread Review”, *Interpreter: A Journal of Mormon Scripture*, 23 February 2013.

145. Moses 1:33.

146. Moses 7:30.

147. Psalms 8:3-4. The next verse marvels, “For thou hast made him a little lower than the angels, and hast crowned him with glory and honour.” A footnote in the LDS edition tells us that the original Hebrew for “lower than the angels” could be translated as “less than the gods”.

148. Ethan Siegel, “How Many Galaxies Are There in the Universe? The Redder We Look, the More We See”, The Crux (*Discover* magazine blog), 10 October 2012. The Church is not unaware of the corroboration astronomy provides for our scriptures. In summer 2010 I attended a beautiful exhibition of enlarged Hubble telescope photographs at the Idaho Falls Temple Visitors Center. See also Dieter F. Uchtdorf, “You are Everything to God”, 181st Semiannual General Conference of the Church of Jesus Christ of Latter-day Saints, 1 October 2011; and R. Val Johnson, “Worlds without Number”, *Ensign*, August 2013.

149. Steve Connor, “Milky Way ‘teeming with billions of Earth-like planets capable of supporting life’”, *The Independent*, 4 November 2013. Professor Geoffrey Marcy at Berkeley is quoted as saying “Until now, no one knew exactly how common potentially habitable planets were around Sun-like stars in the galaxy.”

150. William W. Phelps, “If You Could Hie to Kolob”, *Hymns of the Church of Jesus Christ of Latter-day Saints* (1985), hymn 284. This is another good song to listen to with a montage of celestial phenomena.

151. For example: “After sleeping through a hundred million centuries we have finally opened our eyes on a sumptuous planet, sparkling with colour, bountiful with life. Within decades we must close our eyes again. Isn’t it a noble, an enlightened way of spending our brief time in the sun, to work at understanding the universe and how we have come to wake up in it? This is how I answer when I am asked – as I am surprisingly often – why I bother to get up in the mornings. To put it the other way round, isn’t it sad to go to your grave without ever wondering why you were born? Who, with such a thought, would not spring from bed, eager to resume discovering the world and rejoicing to be a part of it?” (Richard Dawkins, *Unweaving the Rainbow: Science, Delusion and the Appetite for Wonder*, Boston: Houghton Mifflin, 1998, p. 6).

152. “The total amount of suffering per year in the natural world is beyond all decent contemplation. During the minute that it takes me to compose this sentence, thousands of animals are being eaten alive, many others are running for their lives, whimpering with fear, others are slowly being devoured from within by rasping parasites, thousands of all kinds are dying of starvation, thirst, and disease” (Richard Dawkins, *River out of Eden: A Darwinian View of Life*, New York City: Basic Books, 1995, p. 131). Indeed, Charles Darwin’s own crisis of faith was precipitated not by evolution per se but by the suffering he observed in nature. He wrote to Asa Gray, “With respect to the theological view of the question; this is always painful to me. – I am bewildered. – I had no intention to write atheistically. But I own that I cannot see, as plainly as others do, & as I sh[oul]d wish to do, evidence of design & beneficence on all sides of us. There seems to me too much misery in the world. I cannot persuade myself that a beneficent & omnipotent God would have designedly created the Ichneumonidæ with the express intention of their feeding within the living bodies of caterpillars, or that a cat should play with mice. Not believing this, I see no necessity in the belief that the eye was expressly designed.” This is a variant on the “problem of evil” that has plagued theologians and philosophers for all of recorded history, and as I believe LDS theology resolves it rather well, this one doesn’t bother me either – even less so, as non-human animals aren’t subject to laws of morality. The letter continues: “On the other hand I cannot anyhow be contented to view this wonderful universe & especially the nature of man, & to conclude that everything is the result of brute force. I am inclined to look at everything as resulting from designed laws, with the details, whether good or bad, left to the working out of what we may call chance. Not that this notion *at all* satisfies me. I feel most deeply that the whole subject is too profound for the human intellect. A dog might as well speculate on the mind of Newton. – Let each man hope & believe what he can. – Certainly I agree with you that my views are not at all necessarily atheistical [sic]. The lightning kills a man, whether a good one or bad one, owing to the excessively complex action of natural laws, – a child (who may turn out an idiot) is born by action of even more complex laws, – and I can see no reason, why a man, or other animal, may not have been aboriginally produced by other laws; & that all these laws may have been expressly designed by an omniscient Creator, who foresaw every future event & consequence. But the more I think the more bewildered I become; as indeed I have probably shown by this letter” (Charles Darwin, letter to Asa Gray, 22 May 1860, Darwin Correspondence Project). This paradigm is quite similar to my own. In any case, the phrase “How blessed the day when the lamb and the lion shall lie down together without any ire” is an understatement (Phelps, “The Spirit of God”, *Hymns*, hymn 2).

153. A sarcastic demotivational poster on the internet expresses the sentiment thusly: “ATHEISM: The arrogant belief that the entire billion-galaxy universe was not created for us.” Of course, Mormons share this arrogant belief. See Kent Nielsen, “People on Other Worlds”, *New Era* April 1971. Of course, I disagree with his implication that evolution precludes those people from also being made in the image of God, though I don’t pretend to understand how it all works. I should also point out that while the LDS Church is the only religion to my knowledge that makes this an official doctrine, other believers share similar views. See Herb Scribner, “Space and religion: How believers view latest space developments”, *Deseret News*, 7 December 2013.

154. Moses 1:39.

155. I do hope to someday create more than that, and don’t see why not, but it isn’t doctrinal. “Do Latter-day Saints believe that they will ‘get their own planet’? No. This idea is not taught in Latter-day Saint scripture, nor is it a doctrine of the Church. This misunderstanding stems from speculative comments unreflective of scriptural doctrine. Mormons believe that we are all sons and daughters of God and that all of us have the potential to grow during and after this life to become like our Heavenly Father (see Romans 8:16-17). The Church does not and has never purported to fully understand the specifics of Christ’s statement that ‘in my Father’s house are many mansions’ (John 14:2)” (“Mormonism 101: FAQ”, Mormon Newsroom). In my childhood a guest speaker regaled us with some such “speculative comments”, and somewhat irreverently told us he hoped to “build a planet full of ski resorts”.

156. *Eyring*, *Reflections of a Scientist*, pp. 40-41. Can you tell yet that I’m a Henry Eyring fan? If you haven’t, you really should read this book. It’s only 103 pages long.

157. Ralph Waldo Emerson, Journal, 1832, cited in J. L. Davis, J. T. Frederick, and F. L. Mott, *A Treasury of American Literature* Volume 1 (New York City: Grolier, 1948), p. 703. These words have proven prophetic.