

The Gospel and the Scientific View: How Earth Came to Be

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By F. Kent Nielsen

One of the dramatic stories in Genesis is of a flood, a flood so cataclysmic that we call it simply the Flood. According to the Genesis record, God told Noah, “I do bring a flood of waters upon the earth, to destroy all flesh, wherein is the breath of life, from under heaven; and every thing that is in the earth shall die” (Gen. 6:17).

And the scripture records that “in the six hundredth year of Noah’s life ... were all the fountains of the great deep broken up, and the windows of heaven were opened.

“And the rain was upon the earth forty days and forty nights.

“And the waters prevailed exceedingly upon the earth; ... and the mountains were covered.

“And all flesh died that moved upon the earth, both of fowl, and of cattle, and of beast, and of every creeping thing that creepeth upon the earth, and every man.

“And Noah only remained alive, and they that were with him in the ark” (Gen. 7:11–12, 19–21, 23).

The worldwide flood of Noah’s time has been accepted as a benchmark historical event by Jews and Christians for thousands of years—and similar traditions appear among the Greeks, Mesopotamians, and some American Indian tribes. Yet the story is regarded skeptically today in our secular world. Most current geology texts ignore the Flood, ridicule it, or use it as an example of prescientific superstition.

Consequently, Latter-day Saints and other Christians sometimes find the apparent conflict between their faith in the scriptures and their education puzzling. The account of Noah’s flood is a typical illustration of the differences which occur between scriptural information and modern secular teachings about the history of the world.

What is the “scientific” view of our early world that so dominates our age? How did it come to be? Where does it seem to cause challenges for someone who loves and believes the sacred texts that recount events of that same early world? In order to better orient ourselves and assist us in helping others and our children, it may be helpful to examine certain aspects of the development of scientific thought,

including the differences between the purely naturalistic explanations and those which involve the actions of God as part of the picture. Also, we will look at the further understanding available to us through modern-day revelation and the gospel context.

The History of Science

Our discussions will begin with a definition of *science*. Many of us think of it as a list of subjects like chemistry, geology, physics, and so forth. To most scientists, however, science is primarily a method for seeking the truth, not the subjects studied by that method.

Most of us have learned the three-step method: (1) imagine models of how something might be; (2) predict what you could observe if the models were true; and (3) check what actually occurs either through experiments or other methods. When the predictions of the model match the experimental evidence, then we have a law or theory that is successful and is considered “true”—not true in an absolute sense, but as an explanation that will work until other observations emerge that are inconsistent with the model, or until a new theory comes along which better explains the same phenomenon.

Although minor changes occur continually, a well-established scientific theory is not changed or abandoned very often. But major changes do occur. This process keeps science from becoming a set of cut-and-dried answers—an exciting, ever-changing activity. Probably every scientist has dreamed of coming up with the new data that will overthrow an old, established theory. Newton and Einstein are justly honored because they did just that. By looking at the universe in a new way, each gave us a new theory and set of “laws” about motion and gravitation.

Yet for many, science has come to mean not a method for understanding how nature *does* work, but a particular philosophy about how nature *has* to work. This philosophy has become a sort of super-model, and any proposed model or observation which doesn’t fit the existing philosophy is automatically discarded as unworthy of further examination. Accepting this rigid philosophy, known since the late eighteenth century as “naturalism,” has led many people to reject the story of the Flood and other events recounted in Genesis.

Where did naturalism come from? It began with the Greeks, but we can pick it up in the seventeenth century when the age-old discussion about the relationship of God to the order of nature acquired a new image. In Western cultural tradition, scientific thought and religion have always agreed that there *is* an order to nature and that events do not just happen randomly. Thus, both science and religion have asked certain questions: Is God responsible for creating that order? Is he responsible for upholding it? Can he or does he ever interfere with that order by causing miracles to happen?

The traditional belief of our Bible-based Western culture was always that the order of nature is subject to God, who created that order in the first place, who sustains it, and who can alter it according to his own will. But in the seventeenth century, the “mechanical philosophy” envisioned nature as a great and perfect machine, created by God but now running on its own. From this philosophy it was easy to take the next step in the nineteenth century to the present version of scientific naturalism, which holds that self-existing scientific laws are themselves the causes of the order, not God. This philosophy seldom asks why those particular laws hold, rather than other possible laws; it simply states that that’s the way the universe happens to be, always has been, and always will be. This secular viewpoint holds that God has no direct relationship to nature. In this view, if there is a God, he, like man, exists and acts within nature. This mechanistic philosophy holds that miracles do not and cannot happen. And that nature itself has no intelligence, no will, and no purpose.

Naturalism has had a strong influence on the development of astronomy, geology, and biology. The Marquis Pierre Simon de Laplace (1749–1827) was a key figure in the changing philosophy of astronomy. He claimed that it was unnecessary to have a supernaturalistic explanation (God) for the origins of the universe and a naturalistic one (scientific laws) for its functioning. Instead, he proposed that a chance distribution of matter in whirling clouds operated on by the Newtonian laws of motion and gravitation would, given enough time, produce something like the solar system. Thus, he proposed, the apparent design of nature no longer required God as an essential part of the scientific explanation; it could now be explained by a combination of purposeless, unconscious chance and necessity. The divorce between science and religion, once so closely allied, was underway.

We can trace the same general processes at work in geology and biology. In the 1820s, the most widely accepted theories still required God as part of their theories. George Cuvier’s (1769–1832) careful studies of fossil-bearing rock strata had established that most fossils represent forms of life which are now extinct, that fossil forms found in one layer usually don’t occur in other layers, and that no fossils at all occur in the lowest layers. Cuvier had concluded that the earth had passed through a series of geological ages, each characterized by unique life forms. But what had happened to the older forms and where did the new ones come from? He argued that each age must have ended with a great catastrophe that destroyed all or most living things and was followed by a new creation. This succession of catastrophes and new creations obviously required a Creator.

The connection with Genesis was clear for holders of this view. The Flood was exactly such a catastrophe. (The catastrophists did not, however, accept all of Genesis. They did not accept the idea of a “fall” from a life without death to mortality, for instance, since creatures which aren’t mortal don’t leave fossils. And Genesis speaks of only one creation, not a series of creations.)

Even so, catastrophism formed the basis of most reconciliations of science and religion in the mid-nineteenth century. Then Charles Lyell, the real founder of

modern geology, proposed another theory in the 1830s that better supported naturalism. Basing his theories partly on the earlier writings of James Hutton and John Playfair, Lyell argued for “uniformitarianism”—the idea that present geological changes are the key to understanding all those of the past—not catastrophes, creations, or divine interventions. The geological processes of this theory include sedimentation (the formation of fossil-bearing rock layers at the bottom of shallow seas), uplift (raising the layers above the sea), the gradual erosion of these layers, and the sinking of uneroded layers back under the sea where sedimentation begins again. This theory holds that abrupt changes in the layers of rock are explained, not by catastrophes, but by long periods of time when no new rock was formed. Like Laplace’s astronomy, Lyell’s geology presented a naturalistic theory that no longer required God as part of the hypothesis.

The consequences of all this for the Biblical account were obvious. Geological processes are so slow that such explanations required “reckless drafts on the bank of time” (Thomas Chrowder Chamberlin, cited by Joe Burchfield, *Lord Kelvin and the Age of the Earth*, New York: Science History Publications, 1975, p. 11). The six-thousand-year span of earth-history that the Bible speaks of was a totally inadequate period of time for uniformitarian geologists. Thus the creation story was jettisoned by them along with the Flood, the Fall, the miracles, the recorded ages of the patriarchs, and all other “nonuniform” events.

It only remained for Darwin and his successors to produce a naturalistic theory for the origins of animals and men, and the whole Genesis account came to be seen by many as “myth,” not history. And, to them, if Adam and the fall had not existed, the resurrection and redemption offered by Christ could only be seen as equally unhistorical, since these occurrences were not seen as naturalistic, uniform processes. Nor, to them, are the events of the last days, foretold in the Old and New Testaments. Nor prophecy and revelation themselves, since all of them imply God’s supernatural intervention into the natural order of man’s learning processes. The result was a complete and total setting aside of the impact of God in the lives and affairs of the earth and its inhabitants.

These conclusions, deeply troubling to Bible believers in Western civilizations, were reinforced by “higher criticism,” a nineteenth-century school of biblical studies that found naturalistic explanations for the scriptures, no explanations involving revelation, prophecies, or miracles. And naturalistic theories for the origins of human societies and institutions—including religion itself—followed rapidly.

Scientific naturalism seemed to have swept away everything before it. And in its wake most scientists and theologians, who had long relied on each other’s mutual support, were deeply troubled. Some place, they felt, could and must be found for a belief in God, who had so rapidly been reduced from a position of being absolutely necessary to the scientific world to a position of being not only unnecessary but even in the way. Theologies and scientific viewpoints were thus worked out which viewed God still as the Creator and Upholder of the natural order, and viewed evolutionary processes as the means by which God worked.

These views could tolerate the idea of God anywhere that didn't practically make any difference; that is, so long as he never interfered with the actual workings of the processes of nature.

But such accommodations left a residue of uneasiness. Succeeding generations often felt that it was more honest to the theories, as well as simpler, to completely reject the Bible view as an anachronistic holdover from a more ignorant past.

Joseph Smith's Message

Thus it was into the midst of these developing tensions and unresolved differences that the gospel of Jesus Christ was restored in the nineteenth century. Under the inspiration of truths, revealed anew to the Prophet Joseph Smith, modern prophets powerfully turned the age-old question around: since God had in the past performed miracles and called prophets, why should he have stopped? The testimony of The Church of Jesus Christ of Latter-day Saints was and is now that God does call prophets, does give revelations, and does perform miracles on behalf of believers today, just as in days of old. It is the clarion message of modern prophets that as a result of modern revelation and by the witness of the Holy Spirit, the realities of older revelations can be verified.

Revelations given through modern prophets do in fact confirm the truths of Genesis and other scripture: there was a creation, a fall, a flood, and a necessary atonement. It was revealed anew that the prophets who recorded the ancient scriptures were able to see through time and record future events. The restored gospel teaches that God is intimately associated with nature both as its Creator and Sustainer. And miracles show his power over the natural order.

The Prophet Joseph Smith carefully taught the elders in Kirtland that "faith is ... the principle ... of power" through which "the worlds were framed by the word of God" (*Lectures on Faith*, 1:13, 14). It was through faith that "the whole visible creation" was not only organized but by which it also "continues in its organized form, and by which the planets move round their orbits and sparkle forth their glory" (7:5). Hence, "any man who hath seen any or the least of these hath seen God moving in his majesty and power," even though he might not recognize how the order of the universe continues, for "the light shineth in darkness, and the darkness comprehendeth it not" (D&C 88:47, 49). By this power, all things "exist, by it they are upheld, by it they are changed, or by it they remain, agreeable to the will of God" (*Lectures on Faith*, 1:24).

In other words, the view taught by modern prophets shows that the order of nature is not simply a given, as scientific naturalism would claim. Instead, it explains that such order exists because of certain laws which God has established and upholds: "He hath given a law unto all things, by which they move" (D&C 88:42). His power—or the light of Christ—"proceedeth forth from the presence of God to fill the immensity of space," and "is the law by which all things are governed," for "there is

no space in the which there is no kingdom,” and “all kingdoms have a law given” (D&C 88:12–13, 36, 37).

The laws which maintain the natural order constitute “truth,” which is “independent” only “in that sphere in which God has placed [them]” (D&C 93:30). Thus, as Latter-day Saints we understand how science can discover truths about our present order. In other words, as Latter-day Saints, we recognize that there are some limitations about the extent of uniformity in our present mortal order of nature.

The first limitation is that the same order or set of laws does not necessarily extend to other “spheres.” A sanctified, millennial world, or a glorified celestial world, or a pre-Fall paradisiacal world obviously functions under a different order of nature. Its order—perfectly “natural” to it—would seem “unnatural” to our mortal world. Imagine, for instance, the biology of a world in which there is no death. Or try to fit the second law of thermodynamics (which states that all energy processes of the universe are “running down”) into a world of eternal progression. Clearly, God has placed us in one “sphere,” but there may be many other types of “spheres” for us to learn about at some future time.

The second limitation the gospel places on the concept of uniformity is that the same God “who holds this world in its orbit, and who upholds all worlds and all things by his power” has the power to perform miracles—to make what appears to us to be temporary exceptions to the order of nature as we understand it—if it is his will to do so (*Teachings of the Prophet Joseph Smith*, sel. Joseph Fielding Smith, Salt Lake City, Deseret Book Co., 1977, p. 345). These miracles, however, may be the result of higher laws for our “sphere” that are not understood by us. Thus, since God has promised that he will indeed exercise his power if we seek him in faith, he encourages us to seek his aid. Mormon scolded the people of his day for thinking that miracles had ceased. He wrote: “Christ hath said: If ye will have faith in me ye shall have power to do whatsoever thing is expedient in me.

“For it is by faith that miracles are wrought; ... wherefore, if these things have ceased wo be unto the children of men, for it is because of unbelief” (Moro. 7:33, 37). His son, Moroni, reinforced the message by asking his future readers: “And now, O all ye that have imagined up unto yourselves a god who can do no miracles, I would ask of you, have all these things [events to occur at the time of the resurrection of the dead] passed, of which I have spoken? Has the end come yet? Behold I say unto you, Nay; and God has not ceased to be a God of miracles” (Morm. 9:15).

To Latter-day Saints, the image of God as a master machinist, setting up an unalterable course of nature, contradicts our knowledge of him as a loving Father who wants his children to seek after him in prayerful faith for the fulfillment—even the miraculous fulfillment—of their righteous desires.

The third clarification the gospel gives us is a reminder that time will change the order of nature—even in our present, mortal world. When the earth was “new,”

before the Fall, it was in a paradisiacal state, and “if Adam had not transgressed ... all things which were created must have ... remained forever, and had no end” (2 Ne. 2:22). Both man and animals ate only plants (see Gen. 1:29–30). Adam and Eve would have had no children (see 2 Ne. 2:23). Apparently, the earth did not then bring forth “thorns ... and thistles” to vex man (Gen. 3:18). These are just three differences between that state of the earth and our current one. Because of the Fall, “the whole creation groaneth and travaileth in pain together until now,” waiting with “earnest expectation” to “be delivered from the bondage of corruption,” when the redemption shall bring its present condition to an end (Rom. 8:22, 19, 21).

The present condition of the earth will end when Christ comes to reign personally upon the earth, giving it again its “paradisiacal glory” (A of F 1:10). For, “as God made the world in six days, and on the seventh day he finished his work, and sanctified it ... even so, in the beginning of the seventh thousand years will the Lord God sanctify the earth” (D&C 77:12). This coming sanctification of our sphere will not result from the present natural order uniformly continuing its course. Instead, that order will change drastically because of the direct intervention of its Creator and Maintainer. All living things and even the elements of the earth “shall become new, that my knowledge and glory may dwell upon all the earth” (D&C 101:24–25).

The prophets, both ancient and modern, have given us a sketch of the magnitude of these changes. The Mount of Olives “shall cleave in twain, and the earth shall tremble, and reel to and fro” (D&C 45:48). The voice of the Lord “shall” break down the mountains and the valleys shall not be found. He shall command the great deep, and it shall be driven back into the north countries, and the islands shall become one land ... and the earth shall be like as it was in the days before it was divided.

“And the Lord, even the Savior, shall stand in the midst of his people” (D&C 133:22–25).

True peace will then come as “the enmity of all flesh shall cease from before my face” (D&C 101:26). Death and sorrow shall both end. Children will live to “the age of a tree” and then, upon death, “shall be changed in the twinkling of an eye” (D&C 101:30–31). Mortality will continue for a thousand years upon the earth under these vastly changed conditions, as new spirits continue to receive earthly tabernacles through birth, while righteous parents have the marvelous promise that “their children shall grow up without sin unto salvation” (D&C 45:58).

Yet even the conditions of the Millennium are subject to change, according to the plan and will of God. When the thousand-year period ends, the earth will undergo a still greater change, “dying” to bring to an end its temporal existence and being “quickened again” to become a celestial world, to abide forever in the conditions of that glory by which it will be quickened. It will thus become the inheritance of the righteous who have also been quickened by a fulness of the celestial glory. Christ, having completed the salvation of this earth and its inhabitants, will present it spotless to the Father.

The conditions of the earth's new natural order will then be so different that even though some prophets have made attempts to describe it we are simply told that "eye hath not seen, nor ear heard, neither have entered into the heart of man, the things which God hath prepared for them that love him" (1 Cor. 2:9).

In sum, the ultimate conditions of uniformity that we observe in the course of nature in our present sphere are severely limited. From the time of the Fall until the end of the Millennium is described as seven thousand years (see D&C 77:6). And while seven thousand years is long in comparison to a human lifetime, from the perspective of eternity (and also from the perspective of modern theories of astronomy or geology), it is extremely short. In seven thousand years, neither stars nor earth nor biological species change enough, according to naturalist principles, to be very significant.

It is therefore helpful to remember, when pondering the millions of years secularists postulate to explain the formation of the earth, that all current geological dating processes are based on the assumption that the present order of nature preceded us and will continue uniformly hereafter. This secularist view also holds that God, if he exists, never has and never will interfere. However, the revelations Latter-day Saints have about the earth and God's dealings with it simply do not permit us to make those assumptions. As Latter-day Saints we do not throw out the Genesis story—as so many secularists have done—nor do we regard scientists' honest efforts to learn the truth as the work of the Adversary (though the Adversary does, of course, use those views to fulfill his ends). Instead, we would do better to wait patiently with faith in the scriptures until the Lord fulfills his promise to reveal at the beginning of the Millennium, "things which have passed, ... things of the earth, by which it was made," which, we are assured, will still be part of the "hidden things which no man knew" (D&C 101:32–33). Once the truth is known, all conflicts arising from part truths will vanish. In the meantime, scientists (including many Latter-day Saints) can continue to supply us with helpful knowledge about our present, mortal sphere, or even with ideas about how things might have occurred in the past if the processes under consideration really were uniform over the necessary length of time.

It is also worth noting that, despite the limitations we mentioned that modern revelation places on uniformity, there is still a grand, over-arching uniformity involved in all that the revelations have told us about our earth and similar worlds. There seems to be a divine order whereby worlds and their inhabitants advance.

As Brigham Young taught: "There never has been a time when there have not been worlds like this, and ... there never will be a time when there will not be worlds organized and prepared for intelligent beings to dwell upon" (in *Journal of Discourses*, 8:81). "And they are continually coming into existence, and undergoing changes and passing through the same experience we are passing through. ... and every earth, and the people thereof, in their turn and time, receive all that we receive, and pass through all the ordeals that we are passing through" (in *Journal of Discourses*, 14:71–72).

Thus, it may be that the problem with uniformity as scientists know it is simply one of generalizing too soon, upon too small a sample. If, instead of a period of a few hundred years, the sample period were taken over enough thousands of years to include the whole life cycle of a world like ours, from creation to glorification, allowing for the operations of the power of God to bring about the desired changes throughout that whole period, then the principle of uniformity might seem to be perfectly sound, at least so far as it appears to us from modern revelation.

Within this enlarged view of a celestial uniformity, the worldwide flood of Noah's time, so upsetting to a restricted secular view, fits easily into place. It is the earth's baptism. Brigham Young pointed out that the earth "abides the law of its creation, has been baptized with water, will be baptized by fire and the Holy Ghost, and by-and-by will be prepared for the faithful to dwell upon" (in *Journal of Discourses*, 8:83).

The law for a world such as ours closely parallels the law for its inhabitants. Like each of us, the earth existed for a time in the presence of God in a premortal, uncorrupted condition. Like each of us, it entered a fallen, mortal condition. Like us, it must be sanctified by being born again, first of the water and then of the Spirit. The earth has been cleansed by water baptism, and its cleansing by fire associated with the last days will allow the Holy Spirit to dwell throughout the whole earth during the Millennium when the earth, not yet glorified, will be sanctified. For the earth, as for us, the work of salvation can only be completed through death, which will alter its mortal structure, followed by a glorious resurrection, which will establish it upon celestial principles that it may abide in that glory forever.

As Orson Pratt pointed out: "Who, in looking upon the earth as it ascends in the scale of the universe, does not desire to keep pace with it? ... O man, remember the future destiny and glory of the earth, and secure thine everlasting inheritance upon the same, that when it shall be glorious, thou shalt be glorious also" (in *Journal of Discourses*, 1:333–34).

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