Interpreting Genesis One in the Twenty-first Century

By Fritz Guy

he question of the relation of natural history to divine creation is the question of how (and when) God has acted in the processes by which the universe, the earth, and the various forms of life have come to the condition in which we now see them. For Christians who are not only religiously serious but also scientifically aware and intellectually honest, the answer to this question partly determines, and is partly determined by, the way they interpret Genesis 1 (by which I mean Genesis 1:1-2:3).1

So the question is hermeneutical as well as scientific and theological. It is useful to think of these three aspects of the question as dimensions that are distinct from each other but necessarily intersect and interact. My intention in this article is to address the hermeneutical dimension in relation to the other two.

Our central question is this: in the light of what we understand scientifically and theologically in the twenty-first century, how shall we interpret Genesis 1?

Reading the Text

To answer this question, the first thing to do is to read the text because what it actually says is not necessarily identical to our present understanding of it. As Ellen G. White wrote in 1889, "Whenever the people of God are growing in grace, they will be constantly obtaining a clearer understanding of His Word. They will discern new light and beauty in its sacred truths. This has been true in the history of the church in all ages, and thus it will continue to the end."²

A few years later, she wrote, "There is no excuse for anyone in taking the position that there is no more truth to be revealed, and that all our expositions of Scripture are without an error." To the extent that this inspired counsel guides our reading of Scripture, we must recognize both the possibility and the desirability of understanding it better, even if doing so means understanding it differently.

Reading Genesis 1 as if for the first time—without preconceptions about what it actually says and what it really means, but taking content and its intrinsic structure—yields several interesting observations:⁴

- Creation begins, not with nothing at all, but with formlessness and emptiness.
- Creation progresses from light to the image of God in humanity, from the physically elementary to the psychosocially complex.
- The deficiencies of formlessness and emptiness are remedied respectively by "forming" during days one to three and "filling" during days three to six. The "forming" is largely a matter of differentiation, the separation of light from darkness, the waters above from the waters below, and the sea from the land; and the "filling" is largely a matter of production, the "bringing forth" of plants, animals and birds, and humanity.
- The three days of "forming" are each paralleled by three days of "filling": the differentiation of light from darkness (day one) and the production of heavenly lights (day four); the differentiation of the water above and below (day two) and the production of birds and fish (day five); and the differentiation of land from the sea (day three) and the production of land animals and humans (day six).
- The six days are all explained in similar language and reflect a similar structure: a divine word, "God said" (Gen. 1:3, 6, 9, 11, 14, 20, 24, 26, 28, 29); a command, "Let there be" or its equivalent (Gen. 1:3, 6, 9, 14–15, 20, 24); a report, "And it was so" (Gen. 1:3, 7, 9, 22, 25, 24, 30); and an evaluation, "And God saw that it was good" (Gen. 1:4, 10, 12, 18, 25, 31).
- The explanation ends with a surprise, a completely different literary form and content—God resting, designating the seventh day as *shabat*, and making it holy, thereby making the Sabbath the climax of the passage.⁵
- God is the grammatical subject of most of the sentences: "God said"; "God created"; "God saw"; "God called"; "God blessed"; "God finished"; and "God rested."
- Genesis 1 provides an introduction to, explanation
 of, and advocacy for the Sabbath, which in turn
 "distinguishes the view of the world as creation
 from the view of the world as nature."⁶
- As the beginning of the canon of Hebrew Scripture, Genesis 1 is also a prologue to the history of God and the covenant people.⁷

 This whole explanation of creation seems to reflect an ancient understanding of the world that is typically described as follows: The ancient Hebrews imagined the world as flat and round, covered by the great solid dome of the firmament, which was held up by mountain pillars (Job 26: 11; 37:18). Above the firmament and under the earth was water, divided by God at creation (Gen. 1: 6, 7; compare Ps. 24:2; 148:4). The upper waters were joined with the waters of the primordial deep during the Flood; the rains were believed to fall through windows in the firmament (Gen. 7:11; 8: 2). The sun, moon, and stars moved across or were fixed in the firmament (Gen 1:14-19; Ps. 19:4,5). Within the earth lay Sheol, the realm of the dead (Num. 16:30-33; Isa. 14:9,15).8

For us who live in the world of the twenty-first century, this kind of language, like that about "heaven above," "the earth beneath," and "the water under the earth" (Exod. 20:4), is highly poetic and metaphorical, and we cannot be sure about what the ancient Hebrews actually envisioned.

Interpreting the Text

Having listened for what Genesis 1 actually says, how shall we interpret it? In other words, what kind of cosmology does Genesis 1 give us? There is no doubt that it is a cosmology, an understanding of the origin and nature of the cosmos, but what kind of cosmology? Is it a natural or a theological cosmology? Is it physics or metaphysics, or perhaps antiphysics? Does it tell us how the world actually began, or what it means? Does Genesis 1 give us a set of natural facts about the world, a picture of what it looks like, or a statement of its ultimate significance?

Literalistic Interpretation

So far as I know, no one who is scientifically informed currently interprets Genesis 1 absolutely literally—believing, for example, that the earth is three days older than the sun and stars and is covered by a dome (Gen. 1:16, 6)—just as no one claims on the basis of Scripture that the sun moves around a square earth. The explanation that the sun and stars existed prior to the fourth day but became visible on that day is arguably a plausible interpretation, but it is certainly not a literal interpretation of a text that clearly reads "made" and not "made visible." 10

The idea, favored by many Christians, that the

astronomical universe is very old but the present terrestrial ecosystem is relatively young certainly clashes with a literal interpretation not only of Genesis 1, but also of the Exodus 20:11, which unambiguously says that "in six days the Lord made heaven and earth, the sea, and all that is in them." As for the "dome," the interpretive translation "expanse" seems supported more by ideological than by linguistic evidence.¹¹

Thus, what is often assumed (or claimed) to be a strictly literal interpretation is often only more literal. Hence, I use the terms "literalistic" and "literalistically," by which I mean "as literal (or literally) as possible." ¹²

of proof. It is always appropriate to ask of any interpretation, even a literalistic one, what justifies it. No interpretation has a preferred status, much less immunity to rigorous criticism on literary, factual, logical, or theological grounds.

Related Issues

Accumulating empirical evidence regarding the history of the universe, planet Earth, and life raises an obvious and unavoidable issue: how does this evidence affect an interpretation of Genesis 1? While reading that God did the work of creation in six days and rested on the seventh, what does one do with the indications

It should be common knowledge in theology that there are no uninterpreted texts of Scripture. To read a text is to interpret it.

Too often missing from considerations of hermeneutics is a recognition that a literalistic interpretation, one that regards a text as a factual report or description, is an interpretation, just as much as a nonliteralistic interpretation that regards the text as a metaphorical evocation or explanation. Frequently it is simply assumed that a literalistic interpretation is just what the text says, and that any other interpretation is merely the interpreter's subjective opinion. But the scriptural reality is not that simple. Just as it is common knowledge in science that there are no uninterpreted data of nature, so it should be common knowledge in theology that there are no uninterpreted texts of Scripture. To read a text is to interpret it.

It is sometimes claimed that a literalistic interpretation is the presumptive, preferred interpretation—the "default" hermeneutical setting, so to speak—so that we ought to interpret a passage of Scripture literalistically unless there is good reason to interpret it otherwise. But it is far from self-evident that this claim is correct, especially if the text we are reading (a) comes from a very different time, place, and culture; (b) has an obviously religious—that is, spiritual and theological—intention; and (c) refers to a transcendent reality and activity such as God and creation. Thus, an interpretation that seems simple and straightforward, even obvious and inescapable, to some readers can seem naïve, superficial, careless, or even unreasonable to others.

It may well be, of course, that the most adequate interpretation of a given text is a literalistic one, but the one who makes this claim bears the burden of a temporally extended creative process and of biological change?

We can hardly claim that scientific evidence regarding earth history doesn't matter. This obscurantist view is sometimes expressed as brisk, bumper-sticker theology: "God said it, I believe it, that settles it." But there are at least two things wrong with this kind of thinking.

In the first place, it is psychologically impossible for an educated Western person in the twenty-first century to dismiss modern science as irrelevant; it is an essential element in our cultural identity, part of the fabric of our lives. In the second place, because of the diversity of interpretations of Scripture, as well as our Adventist heritage of progressive understanding of truth, we cannot simply assume that what the Word of God says is just what we suppose it says.

The strategy of ignoring scientific knowledge is not a viable Adventist option, because in our collective psyche rings a memorable assertion by Ellen G. White: "The book of nature and the written word shed light upon each other. They make us acquainted with God by teaching us something of the laws through which He works." We do not honor God by disregarding the "book of nature" and "the laws through which He works"—by pretending, for example, that geological phenomena do not exist, or that radiometric dating is meaningless.



Although we need not be tyrannized by current scientific ideas, we cannot afford to ignore them either. The fact that certain doctrines have been held as truth for many years by our people is not a proof that our ideas are infallible. Age will not make error into truth, and truth can afford to be fair. No true doctrine will lose anything by close investigation. The inescapable corollary of this final sentence is that if a doctrine, no matter how venerable and venerated, does "lose anything by close investigation," it is thereby known to be something other than a "true doctrine."

The scientific issues raise equally obvious and unavoidable theological issues. One of these is the incompatibility of the brutality and wastefulness of a long evolutionary scenario with the idea of an allwise, all-powerful, all-loving God. In an evolutionary scenario, "nature is . . . where the fittest survive, 'red in tooth and claw,' fierce and indifferent, a scene of hunger, disease, death." Is it reasonable to suppose that the God who is revealed, for example, in the life, death, and resurrection of Jesus would employ this kind of painful, predatory process?

A second issue is the relation of death to sin: If death reigned universally during a multibillion-year process of evolutionary development, in what sense, if any, can it be "the wages of sin"? (Rom. 6:23). A third issue is the meaning of the "fall" of humanity. If the history of life on earth is a continuous development toward greater complexity, sentience, and moral consciousness, in what sense did humanity "fall"?

Issues such as these are certainly not trivial, and they interact constantly and significantly with our hermeneutical question. How shall we interpret Genesis 1?

If we are unwilling to dismiss the significance of either Genesis 1 or current science, we have three principal options for interpreting the sacred text. For the purposes of this article I will call them "quasiscientific," "antirealistic," and "theological." Although these labels are not commonly used, and are different from those I have used elsewhere, I believe they are accurate, and I hope they are useful.¹⁸

Genesis I as Quasiscientific Description

To interpret Genesis 1 as quasiscientific description is to regard the text as providing empirical data that can be understood in a modern context.

I use the term *quasiscientific* rather than *scientific* because the content of Genesis 1 is certainly not "science" in the ordinary modern sense of the word.

For one thing, Genesis 1 was composed long before the modern scientific mentality existed, and this historical and cultural distance makes it doubtful that the text can be expected to reflect, or even to provide data that are relevant to, the concerns of modern cosmology.

For another thing, it seems clear that "Scripture and science have different purposes and foci, with Scripture focusing on qualitative issues of purpose and meaning, and the sciences concentrating on quantitative issues of process and structure." ¹¹⁹

Historically, however, most Christians have interpreted Genesis 1 literalistically, and many still do, convinced that the teaching of Scripture must not be overridden by secular ideas."²⁰

This interpretation, which underlies the enterprise known as scientific creationism (or creation science), is vulnerable to two principal kinds of objections. On the one hand, it is extremely difficult to maintain a literalistic interpretation in view of current empirical evidence, including radiometric dating, that suggests a very long history of changing life forms. On the other hand, this interpretation "trivializes the sacred texts by bringing them down into the same secular context as modern scientific discourse."²²

Some thoughtful Adventists, concerned about the discrepancy between the scientific evidence of natural history and the traditional interpretation of Genesis 1, but unable to accept the apparent theological implications of theistic evolution, have formulated a dualistic interpretation. This interpretation is dualistic not only in the general sense of accepting the respective implications of both geology and Genesis, but also in the classical metaphysical sense of including a powerful demonic force, viewing the process of biological evolution as a failed Satanic attempt at creation followed by divine intervention to create humanity. In explicit contrast to "theistic evolution," this could be described as "Satanic evolution."

According to this interpretation, the empirical evidence documents an evolutionary process that actually occurred over billions of years of life on our planet and involved numerous biological dead ends—hence, the disappearance of species from the fossil record. This scenario is based on Ellen White's development of the idea of the Great Controversy and her account of Satan's rebellion over his exclusion from God's plan for creating humanity.²⁴

This interpretation depicts Satan as already knowing about DNA and genomes. His attitude was, "I could do it just as well, if not better, if I had enough time." So he began with the simplest forms of life, and over two or three billion years developed them into increasingly complex forms, but he was unable to create humanity, with personhood and moral freedom. A few thousand years ago, God stepped in and took over the process, creating the first humans as described in Genesis 1 and 2.

This Great Controversy interpretation of Genesis

Genesis I and Scientific Antirealism

If a person finds the scientific evidence for a multibillion-year process of the development of life on earth compelling, is there any logically coherent way of taking Genesis 1 literally? Yes there is. It is what I will call the "antirealistic interpretation," so called because it depends on the philosophy of science known

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1 is a uniquely Adventist version of the so-called "ruin and restoration" version of the "gap" interpretation, according to which an extensive period occurs between verse 1 ("In the beginning God created the heavens and the earth") and verse 2, ("And the earth was [or became] formless and empty"). The distinctive Adventist features are the Satanic engineering of the evolutionary process and the importance of the onlooking moral universe.

We must applaud two aspects of this proposal. First, it highlights a fundamental theological concern, namely, a recognition that our understanding of natural history is related to an understanding of God. Second, it recognizes that a theological argument cannot refute empirical evidence: we cannot use our convictions about the character of God to argue that macroevolution didn't occur because God wouldn't work that way any more than we can say that the Holocaust didn't happen because God wouldn't allow it. The Great Controversy interpretation of Genesis 1 addresses a theological problem with a theological solution.

But we must also acknowledge three objections to the dualistic interpretation. First, there is a total absence of supporting evidence, either Scriptural or empirical. The most that can be claimed is that it is not inconsistent with the biblical or scientific data. Second this view presupposes the validity of a quasiscientific interpretation of Genesis 1, which has the kind of problems we have already noted. Third, in response to the theological problem of a long, brutal evolutionary process as God's method of creation, one arguably more plausible alternative to the idea of demonic evolution is the idea of creation as divine self-limitation.²⁵

as "antirealism."26

This view of science insists that the scientific enterprise does not provide information about reality that is unobservable, such as the theoretical entities of elementary particle physics (quarks, mesons, and so forth). Thus, it stands in explicit opposition to the prevailing notion of "critical realism," the view that scientific theories do tell us something about unobservable reality—not exactly what it is, but clues, however imperfect. Scientific antirealism, on the other hand, claims that scientific investigation and theory do not tell us anything at all about unobservable reality.

From this perspective, science is in the functional business of reporting what the world seems like. It still deals in theories about unobservables, claiming with conviction that, by all experimental accounts, events in the world behave *as if* there are atoms. . . . Scientists are committed to the truth of such "as-if" claims, but this does not force a commitment to the corresponding "is" claim.²⁷

Of the various versions of antirealism, the one of greatest interest for our present concerns is phenomenalism.²⁸ The label is indebted to Immanuel Kant, who made a basic ontological distinction between *phenomena* (appearances based on sense perceptions) and *noumena* (realities in themselves quite apart from perceptions of them). Kant insisted that knowledge is restricted to phenomena, and that

although noumena may be reasonably supposed to exist, they are never actually known because they are in principle unknowable.²⁹ Accordingly, phenomenalist antirealism views scientific theories as being about appearances, not about reality as such.

Scientific antirealism goes far beyond the recognition that theories about unobservables do not convey literal truth; it insists that such theories do not convey truth at all—either because the truth about unobservables cannot be known or because there are no unobservables to be known. Yet antirealism is by no means antiscience; it is not a rejection of scientific theories as such, but a radically different understanding of their scope and function.

Interpreting Genesis 1

The presence of antirealism as a respectable philosophy of science makes all the more relevant its implications for a literalistic interpretation of Genesis 1. According to the antirealist, scientific theories do not provide information about aspects of reality that are unobservable; and the origins of life, the earth, and the universe are certainly as unobservable as quarks, gamma rays, and gravity. So, we might say, science properly claims that the universe looks as if it began in a Big Bang about 14 billion years ago, that the earth looks as if it began about 4 billion years old, and that life on earth looks as if it developed over time to the emergence of homo sapiens about 100,000 years ago.

However, science does not (and cannot) claim that the universe actually did begin in a Big Bang about 14 billion years old, that the earth actually is about 4 billion years old, or that humanity is the product of a long evolutionary process. Theories about natural history may be judged to be more or less applicable to the apparent ages of the universe and terrestrial life, or more or less useful in correlating relevant data. But they may not be judged as true or false. Thus, evolutionary theories are not something one "believes in" or "denies"; they are, like radioactive dating methods, simply "used."

Combining instrumentalist and phenomenalist antirealism with a literalistic interpretation of Genesis 1, we might argue both (a) that scientific theories of natural history are impressively useful for organizing a vast array of geological, paleontological, and biological data, as well as predicting future observations about how the universe, the earth, and life appear to have originated; and (b) that Genesis 1 provides a reliable factual description of what actually happened. In short, we might claim that science is a study of appearances, whereas Genesis 1 gives the truth about reality.

An unsophisticated example of this combined antirealist and literalist approach has been around for a long time in the "apparent age" theory of creation, which may deserve a better reputation than it has. ³⁰ According to this theory, all created reality began in a "mature" condition. If, for example, we had given Adam and Eve physical examinations at the Eden Medical Clinic a week after they were created, by whatever anatomical or physiological criteria we used they would appear to be adults. None of the physical (that is, scientific) data would indicate an age of only a few days.

Extrapolating from this single case, we might then speculate that the whole cosmos was created with the appearance of "maturity," which might well include the whole geological column, along with electromagnetic radiation apparently on its way from galaxies millions of light-years away.

Thus, on the basis of an antirealist view of scientific theories, we would not need to try to correlate geological data with Genesis 1, because the two sources of information refer to two totally different things—appearance and reality—and there is no compelling reason to suppose that reality resembles appearances. Such a resemblance is simply an unproved and unprovable assumption. This is essentially what antirealists have been saying, with philosophical respectability, if not wide acceptance.

Thus, antirealism suggests a logically possible way of interpreting Genesis 1 literalistically with intellectual integrity, scientific awareness, and religious seriousness.

Some Problems

As far as I know, no one has worked out a detailed argument for a literalistic interpretation of Genesis 1 on the basis of scientific antirealism, and perhaps for good reason. Although applying the principles of antirealism to the interpretation of Genesis 1 seems logically sound, antirealism itself remains problematic in several ways:

- It dissolves the unity of knowledge, completely dissociating not only observational from theoretical knowledge, but also science from theology, making them irrelevant to each other. The integration of faith and learning, is replaced by an isolation of faith and learning.³¹
- The distinction between observables (phenomena) and unobservables (theoretical entities) is dubious.
 Not only is all observing theory laden, but improvements in technology now enable scientists

to observe entities, structures, and forces that were previously unobservable—a recent example being the microscopic study of the atom, which previously could not be seen.³² If the sharp distinction entailed by antirealism becomes untenable, antirealism itself becomes highly dubious.

- If scientific theories do not in some sense refer to reality as such, "it is difficult to account for the success science has had in predicting entirely new phenomena, phenomena often observationally unrelated to either the phenomena for which the theory was originally proposed or to anything else previously known." 33
- If theoretical science is fantasy, much of the motivation for engaging in pure scientific research is
 lost.³⁴

Genesis I as Theological Explanation

A theological interpretation of Genesis 1 regards the text as a fundamental—that is, foundational—expression of the relation of God, humanity, and the world. "Creation is the term that describes the miracle of existence in general."³⁷

Genesis 1 as the Word of God

The Word of God conveyed in Scripture is both the Word from God and the Word about God. It is the Word from God because it "is inspired by God." Scripture is also the Word about God because it is the documentation of God's self-revelation—what God is, what God does, and what God wants—and because it is the authoritative explanation of the relationship

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In addition to the general philosophical objections to antirealism, there are some more specific theological objections:

- An antirealist approach to Genesis 1 seems to entail divine deception. Although the idea of light on the way to the earth from distant galaxies may be plausible as part of the natural environment necessary for human existence, fossils embedded in geological strata are a much more difficult problem, because there is no evident connection between human existence and the presence of fossils, which are a kind of geological signature.³⁵
- Antirealism invalidates all scientifically based cosmological and teleological arguments for the reality of God, including arguments involving "intelligent design" or cosmological fine-tuning.³⁶
- Furthermore, antirealism is a comprehensive view of all scientific theories about unobservables. We cannot talk realistically about atomic nuclei, electrons, and quarks, and at the same time talk antirealistically about earth history. A thorough going antirealism is such a radical departure from a straightforward, common sense view of reality and knowledge that seems to entail a greater epistemological leap and more difficult conceptual challenge than does a nonliteralistic interpretation of Genesis 1.

between God and all other reality.

Thus, "the sacred writings . . . are able to instruct you for salvation through faith in Christ Jesus." In other words, Scripture "is useful for teaching, for reproof, for correction, and for training in righteousness, so that everyone who belongs to God may be proficient, equipped for every good work" (2 Tim. 3:15–16). The Word of God in Scripture is utterly theological; its objective is salvation, not scientific knowledge. 38

Accordingly, Genesis 1 can be seen, not as a literalistic description of a process, but as "a spiritual interpretation of the universe's origin, nature, and destiny." The difference here is spiritually and theologically crucial. "To know the process by which things came to be would be only interesting; to know that it comes from a will which unites its power with a creative love is to be able to answer with confidence all our most crucial questions about the meaning and intelligibility of our existence."

It is precisely this latter kind of content that makes Genesis 1 "the Word of God." So if we understand Genesis 1 theologically, we take it even more seriously than if we understand it quasiscientifically.

Recalling our earlier observations of the text of Genesis 1, we can begin to decide whether it tells



us how nature works, or what nature (including humanity) means—whether the text is description or explanation, whether it gives us facts or meanings, whether it is physics or metaphysics, whether it is a quasiscientific cosmology or a theological cosmology.

In addition to the explicit contents of Genesis 1 we noted earlier, the text also carries implicit theological freight, including truths about the God the Creator, who is both prior and essential to all other reality, and truths about God's relationships to the universe, the earth, humanity, and ourselves:

- God is the transcendent source of all that is; in contrast to all other alleged gods, God is ontologically prior and ontologically ultimate. "Reality exists only because God acts."41
- God is free, implicitly choosing to create the world, and explicitly choosing to create humanity. God was pleased with the world, and therefore "rested from all his work" (Gen. 1: 26, 31; 2:2).
- All the reality we encounter in the world has positive value. It is not merely an accidental cosmic fluke. It is not meaningless; at least potentially, it makes sense. It is not evil, not hostile to our humanness.
- · No finite reality (including humanity) is the ultimate value the supreme "good," the proper object of worship.
- Our lives have meaning beyond our immediate existence—namely, the fulfillment of God's creative intention. The account ends with the divine Sabbath, God's "rest". Because now there is earthly life with human consciousness, which can "reflect the nature and activity of God."42

It is in principle possible, of course, to interpret Genesis 1 both quasiscientifically and theologically as a factual description with theological implications; facts sometimes do have profound meanings. At this point, however, the conflict between the empirical data and a quasiscientific interpretation makes it extremely difficult to have it both ways.

A theological interpretation of Genesis 1 is encouraged, furthermore, by the differences we see between the sequences of events in Genesis 1 and 2. In Genesis 1, God creates vegetation, then birds and fish, then animals, then male and female humanity. In Genesis 2, God creates a human male before vegetation, next animal life and birds, and finally a human female. It is simply impossible to read both of these passages of Scripture literally.

Most readers seem to regard the sequence of events in Genesis 1 as normative, and unconsciously adjust the sequence of events in Genesis 2 accordingly. Nevertheless, "taken literally," the two explanations of creation "are incompatible." Taken theologically, however, there is no conflict at all, because the two explanations of creation "offer complementary spiritual truths."43 The Book of Genesis retains both explanations and their differences, and thus lets them call attention to the different meanings of the respective passages.44

Read theologically, the explanation of creation in Genesis 1 is complementary also to a scientific explanation of the history of the cosmos, the earth, life, and humanity. Taking the two explanations together yields "an intellectually satisfying and spiritually illuminating account of creation," according to which the universe exhibits "amazing beauty and wisdom," and thus implies the reality of a rational and wise Creator. 45

Objections and Responses

Like the other interpretations of Genesis 1, the theological interpretation is confronted with questions that express serious objections.

The most fundamental objection is one that motivates the Great Controversy interpretation: How can a long and wasteful evolutionary scenario of predation and pain, brutality and suffering be logically consistent with belief in a Creator whose fundamental character is unconditional love? The best response to this question is to understand creation as divine selflimitation expressed in the Christological idea of "selfemptying."46

In the light of the cross of Christ we see everything else: our own lives, human history, and the whole cosmos. God is not only the Great Designer and Immanent Sustainer, but also the Constant Participant and Suffering Redeemer. We see God "not in the predator but in the prey."47

We see that the secret of life in the universe is not survival of the fittest, but a "passion play" in which "things perish in tragedy," and "God too suffers, not less than creatures."48 An infinite vulnerability to suffering is part of the truth that "God [the Creator] is love" (1 John 4:8, 16).

Second, if humanness is regarded as the outcome of a long evolutionary process, what is the meaning of the fall of humanity described in Genesis 2-3? If these chapters are, like Genesis 1, interpreted theologically, they say that God took a major risk in creating humanity, but did not abandon humanity in its sinfulness. About humanity, those chapters say that sin is a perversion, not a part, of its essence.⁴⁹

Sin is not an ontological necessity; it came after creation, not with it. Sin is the misuse of human freedom, the denial of creative intention for humanity, the refusal to live in and as the image of God. To sin is "to claim autonomy, knowledge and power . . . without love and without responsibility, in the name of selfish desire." 50 On the one hand there is no rational

teachings of Ellen White, which for almost 160 years have molded Adventist theology and spirituality? There can be no doubt about her own literalistic interpretation of Genesis 1. But she never regarded her writings as the last work on the interpretation of Scripture, or as the ultimate criterion of theology.

If she were engaged in her prophetic ministry at the beginning of the twenty-first century, recognizing what is almost universally known today about natural

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explanation for sin; but on the other hand it is not the last word about humanness.

Third, if there were millions of years of biological death before the existence of human beings, and therefore before the occurrence of sin, in what sense could death be "the wages of sin" (Rom. 6:23)? The consequence of sin is a radical break between human spirit and God; it is estrangement and guilt, existence without God, the perception of God as an enemy from whom to hide.

It is also a loss of a sense of transcendence, and hence slavery to "fate" (which we now know as genes and early childhood conditioning) and to death without hope, death as oblivion. It is a distortion of human existence into a downward spiral of radical insecurity and more sin—selfishness and greed, hostility and violence, gender disorder, and sexual exploitation.

Fourth, how can we maintain the spiritual validity and theological significance of the Sabbath without affirming a literal six-day process of creation followed by a day of divine rest, which the Fourth Commandment gives as the reason for the Sabbath (Exod. 20:11)? In spite of our traditional Sabbath apologetics, the best theological foundation for the continuing value of the seventh-day Sabbath is Jesus' own practice of and teaching about the Sabbath.⁵¹

The Sabbath is important to us first of all because it was important to him. To understand the nature of Jesus' Sabbath, we then go to Genesis 1 and the Fourth Commandment, noting that the Sabbath is a symbol not only of creation, but also of liberation (Deut. 5: 15). Here again, we cannot let theological convictions negate the significance of empirical evidence.

Fifth, can we depart so specifically from the

history, she would undoubtedly avoid making a divisive issue of the interpretation of Genesis 1.

Although these responses are by no means conclusive, they indicate that the objections to a theological interpretation of Genesis 1 are not necessarily fatal.

Concluding Observations

As I noted once before in a similar context, "there are no free lunches," much less complete, and completely satisfying, answers.⁵² However we interpret Genesis 1, there are always remaining questions, loose ends we can't neatly tie up.

Although most of us individually will find one interpretation more plausible and persuasive than the others, we will certainly not all agree on which one that is, and we may yet change our minds as we continue to look and listen and learn, as we see the scriptural and empirical data more clearly and understand their implications more adequately. In the continuing conversation, we must always be open to clearer understandings, and always as gentle and generous with each other as God is with all of us.

In whatever different ways we interpret Genesis
1 in the twenty-first century, we share a profound
conviction: that the world, along with everything in it
(including ourselves), is God's creation—and therefore
valuable. This conviction should lead us to live with
gratitude, integrity, and humility, respecting and
nurturing our environment, our community of faith,
and each other.



Notes and References

1. The traditional chapter divisions in Scripture are attributed to Stephen Langton, a doctor of the University of Paris and later Archbishop of Canterbury (d. 1228), who evidently introduced them into the standard Latin (Vulgate) translation. The division between the sixth and seventh days of creation is as unfortunate as it is puzzling.

The question about whether Genesis 2:4a ("These are the generations of the heavens and the earth") is the conclusion of the explanation of creation in Genesis 1:1-2:3 or the introduction to the explanation of creation in Genesis 2:5-25 is debatable. On

The word ragia 'occurs 17 times in the Hebrew Scriptures: Gen. 1: 6, 7, 8 (3), 14, 15, 17, 20; Ps. 19:1; 150:1; Ezek. 1:22; 23, 25, 26; 10: 1; Dan. 12:3. In Genesis 1, the meaning is "dome [of the sky]," which is what anyone naturally sees when looking up at the stars on a clear night. The translation "vault" in the Jerusalem Bible (1966) and the Revised English Bible (1989), referring to an arched ceiling, originally masonry, lacks the original Hebrew allusion to hammered metal, but it does suggest the solidity expressed by the English word "firmament," which was the traditional translation at least from the translation of Miles Coverdale (1535) to the Revised Standard Version (1952) and was based on the historic Latin firmamentum, meaning a support, prop, mainstay;

Although most of us individually will find one interpretation more plausible and persuasive than the others, we will certainly not all agree on which one that is, and we may yet change our minds as we continue to look and listen and learn

the one hand, the "generations" formula elsewhere in Genesis is always an introduction (5:1; 6:9; 10:1; 11:10, 27; 25:12, 19; 36:1, 9; 37:2). On the other hand, what follows in Genesis 2:5-3:24 is an account, not of the creation of "the heavens and the earth," but of the creation and fall of sexually differentiated humanity. "These are the generations of the heavens and the earth" seems to form a literary inclusio with Genesis 1:1 ("In the beginning God created the heavens and the earth."). However, this issue is not relevant to the purposes of the present article.

- 2. Ellen G. White, "The Mysteries of the Bible a Proof of Its Inspiration," Testimonies for the Church (reprint ed., Mountain View, Calif.: Pacific Press, 1948), 5:706.
- 3. Ellen G. White, "Christ Our Hope," Review and Herald, Dec. 20, 1892, 785, reprinted in Counsels to Writers and Editors, 35.
- 4. For a brief, accessible, and extraordinarily insightful commentary on the book of Genesis, see Laurence A. Turner, Genesis (Sheffield: Sheffield Academic Press, 2000); on Genesis 1, see pages 19-25.
- 5. See Karl Barth, Church Dogmatics, III/1: The Doctrine of Creation (Edinburgh: Clark, 1958), 223: "Not man but the divine rest on the seventh day is the crown of creation." Pages 213-28 constitute an influential contribution to the theology of the Sabbath. Compare Jürgen Moltmann, God in Creation: A New Theology of Creation and the Spirit of God (San Francisco: Harper, 1985), 5: "According to the biblical traditions, . . . the creation of the world points forward to the sabbath, 'the feast of creation."
 - 6. Moltmann, God in Creation, 6.
- 7. See Barth, Church Dogmatics, 42-329, for an extensive elaboration of the relation of creation and covenant, in which he develops the notion of "creation as the external basis of the covenant" and "the covenant as the internal basis of creation."
- 8. Harper's Bible Dictionary, ed. Paul J. Achtemeier (San Francisco: Harper and Row, 1985), s.v. "firmament." Compare Gibson, Genesis, 30.
- 9. For example, Joshua 10:13 ("The sun stopped in midheaven"); and Revelation 7:1 ("I saw four angels standing at the four corners of the earth").
 - 10. Or, as the Hebrew might have said, "caused to be seen."
- 11. The translation "dome," as in Today's English Version (1976) and the New Revised Standard Version (1989), is based on the primary meaning of the Hebrew noun ragia', denoting a beaten-out metal sheet, from the verb rq', meaning to beat out, to hammer. See Ludwig Koehler and Walter Baumgartner, eds. Lexicon in Veteris Testamenti Libros (Leiden: Brill, 1958), 909-10.

see Charlton T. Lewis and Charles Short, eds., A Latin Dictionary (Oxford: Clarendon, 1879), 752; James Morewood, ed., The Pocket Oxford Latin Dictionary (New York: Oxford, 1994), 56. The Latin is close to the Greek of the Septuagint, stereoma, meaning solid part, support, foundation, from the verb stereoo, which means to make firm or solid, to strengthen.

The translation "expanse" in the New International Version (1978) is supported by The Oxford English Dictionary, 2d. ed. (1989), s.v. "firmament," but the evidence adduced unfortunately fails to support the claim. "Expanse" is unsatisfactory and perhaps misleading because of its un-Hebraic abstractness, which disguises the literal meaning of ragia'. On the other hand, Wenham, Genesis 1-15, 20, observes, "Certainly Gen. 1 is not concerned with defining the nature of the firmament, but with asserting God's power over the waters.'

- 12. I am using the terms *literalistic* and *literalistically* purely descriptively, not pejoratively, and intend them to be so understood.
- 13. An a priori preference for a literalistic interpretation is likely the result of unconscious traditionalism and rationalism rather than piety and respect for the text.
- 14. Ellen G. White, Education (Mountain View, Calif.: Pacific Press, 1903), 128. Compare idem, Fundamentals of Christian Education (Nashville: Southern, 1923), 181: "A knowledge of science of all kinds is power, and it is the purpose of God that advanced science shall be taught in our schools as a preparation for the work that is to precede the closing scenes of earth's history."
- 15. Respect for contemporary secular knowledge is by no means a new idea. Throughout Christian history, deliberately disregarding available knowledge has seldom been a live option for thoughtful believers who have wanted to "love God with all their minds" (see Matt. 22:37; Mark 12:30). In the early fifth century, for example, Augustine wrote in The Literal Meaning of Genesis, 2 vols., ed. John Hammond Taylor (New York: Newman, 1982), 1: 43: "It is a disgraceful and dangerous thing for an unbeliever to hear a Christian, presumably giving the meaning of Holy Scripture, talking nonsense on these topics; and we should do everything we can to prevent such an embarrassing situation, in which people expose vast ignorance in a Christian and laugh it to scorn" (translation revised).
- 16. White, "Christ Our Hope," 785; Counsels to Writers and Editors, 35.
- 17. See Holmes Rolston, III, "Does Nature Need to Be Redeemed?" Zygon: Journal of Religion and Science 29.2 (June 1994),

18. See "Genesis and Geology: Some Contemporary Theological Perspectives," in James L. Hayward, ed., Creation Reconsidered (Roseville, Calif.: Association of Adventist Forums, 2000), 303-11. 289-302; and "Negotiating the Creation-Evolution Wars," Spectrum 20.1 (Oct. 1989), 40-46.

19. John Jefferson Davis, "Response to Robert C. Newman," in J. P. Moreland and John Mark Reynolds, eds., Three Views on Creation and Evolution (Grand Rapids, Mich.: Zondervan, 1999), 137.

20. Ellen G. White, The Great Controversy Between Christ and Satan (Mountain View, Calif.: Pacific Press, 1911), 573; and idem, Fundamentals of Christian Education, 181, which refers to "science falsely so-called."

21. "Scientific creationism," which marshals selected empirical evidence to support a literalistic interpretation of Genesis 1, is called "scientific" because it uses data from scientific investigations. But it is not truly scientific in the generally accepted sense of the term because it fails to meet essential criteria of genuine scientific activity, such as successfully predicting empirical phenomena, accommodating and explaining new observations, and integrating itself into the whole system of scientific theories. See, for example, Peter Kosso, Reading the Book of Nature: An Introduction to the Philosophy of Science (New York: Cambridge University Press, 1992), 144, 138. In the last forty years, it has become increasingly dubious that scientific creationism meets any of these criteria. A growing mass of evidence from a wide variety of scientific disciplines points to a very old earth and a gradual development of life forms.

Perhaps most problematic of all, the very concept of scientific creationism or creation science seems logically incoherent. Science, as understood by most practicing scientists and philosophers of science, is a secular, methodologically naturalistic enterprise, whereas creation is an irreducibly religious idea: whenever and however creation occurred, God did it. For all Christians, and for people in most religious traditions, God is Creator. On the one hand, the meaning of the word God entails creation; on the other hand, the idea of creation implies a transcendent, creating Reality. So scientific creationism seems to be theology marketed as science.

22. John F. Haught, Responses to 101 Questions on God and Evolution (New York: Paulist, 2001), 73.

23. According to Henry F. Pearl's unpublished manuscript, "An Anti-Evolution Model for the JCFS, 2002: A Third Model for a Non-Darwininan Interpretation of Paleontological and Genealogical Data," 3, this theory was first worked out by Jack Provonsha, the late David Cotton, and P. Edgar Hare "around 1963." It was first publicly presented by Provonsha and documented in a privately circulated manuscript entitled "Deus Creator," and later in Jack W. Provonsha, "The Creation-Evolution Debate in the Light of the Great Controversy," in Hayward, Creation Reconsidered: Scientific, Biblical, and Theological Perspectives, 303-11. Pearl is currently developing a revised version of this theory.

24. See Ellen G. White, Spiritual Gifts: The Great Controversy Between Christ and His Angels and Satan and His Angels (Battle Creek, Mich.: White, 1858), 17-20; idem, Spiritual Gifts: Important Facts of Faith in Connection with Holy Men of Old (Battle Creek, Mich.: Steam Press of the Seventh-day Adventist Publishing Association, 1864), 36-38; idem, Early Writings of Ellen G. White (1882; reprint ed., Washington D.C.: Review and Herald, 1945). 145-47; idem, The Story of Patriarchs and Prophets (reprint ed., Mountain View, Calif.: Pacific Press, 1958), 33-43.

The term *great controversy* evidently comes from Horace L. Hastings, The Great Controversy Between God and Man: Its Origin, Progress, and End (Boston: W. H. Piper, 1858), which was briefly reviewed in an anonymous "Book Notice" in the Advent Review and Sabbath Herald, Mar. 18, 1858.

25. See below, pages 12-13.

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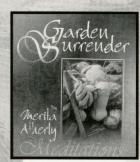


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- 26. For accessible introductory accounts of antirealism, see Kosso, Book of Nature, 91-92; Del Ratzsch, Science and Its Limits: The Natural Sciences in Christian Perspective (Downers Grove, Ill.: InterVarsity, 2000), 79-82. For a more detailed and technical discussion, see Part 5, "Realism versus Anti-Realism: The Ontological Import of Scientific Knowledge," in Janet A. Kourany, ed., Scientific Knowledge: Basic Issues in the Philosophy of Science (Belmont, Calif.: Wadsworth, 1998), 339-440.
 - 27. Kosso, Book of Nature, 91.
- 28. Arthur Fine, "The Natural Ontological Attitude," in Kournay, *Scientific Knowledge*, 391, lists the following among the "enemies of realism": the idealist, instrumentalist, phenomenalist, empiricist, conventionalist, constructivist, and pragmatist.
- 29. See Immanuel Kant, *Critique of Pure Reason*, B294–315, trans. Norman Kemp Smith (New York: St. Martin's, 1965), 257–75; ed. Vasilis Politis (Rutland, Vt.: Charles E. Tuttle, 1993), 205–15.
- 30. See Stephen R. L. Clark, From Athens to Jerusalem: The Love of Wisdom and the Love of God (New York: Oxford University Press, 1984), 26–28, commenting on Philip Gosse, Omphalos: An Attempt to Untie the Geological Knot (London: J. van Voorst, 1857), 123ff., 335ff., 345, 351, 369.
- 31. Antirealism thus absolutizes Ludwig Wittgenstein's famous notion of different language games. Whereas the good news is that science and theology cannot conflict with each other (which is precisely why antirealism makes possible a literalist interpretation of Genesis 1), the bad news is that they cannot engage in dialogue with each other either. See Ian G. Barbour, When Science Meets Religion (San Francisco: Harper, 2000), for the most recent exposition of his influential relational typology: conflict, independence, dialogue, and integration.
- 32. See Chalmers, *This Thing Called Science*, 146: "Planets, light rays, metals and gases are all concepts that are theoretical to some degree, and acquire their meaning at least in part from the theoretical network in which they figure."
- 33. Ratzsch, *Science and Its Limits*, 81. So Chalmers, *This Thing Called Science*, 149: "It must seem a strange kind of accident . . . that theories, that are supposed to be mere calculating devices, can lead to the discovery of new kinds of observable phenomena by way of concepts that are theoretical fictions." It does seem that, as Polkinghorne says in *Beyond Science: The Wider Human Context* (New York: Cambridge, 1996), 8, and again in *Faith, Science and Understanding* (New Haven: Yale, 2000), 79, "Scientists are mapmakers of the physical world. . . . In the sense of an increasing verisimilitude, of ever better approximations to the truth of the matter, science offers us a tightening grasp of physical reality."
- 34. According to Kosso, *Book of Nature*, 95, 96, antirealism "gives up what is most worth doing in science, namely, understanding what is happening behind the scenes in the realm of unobservables." It "asks us to ignore our curiosity about the unobservable." Compare Polkinghorne, *Faith, Science, and Understanding*, 113: "Unless one were learning, by means of science's intricate and artificially contrived experimental procedures, what the world is really like, the whole enterprise would not seem worth the time, talent and treasure spent upon it." Technological advancement might, however, legitimate science for an antirealist.
- 35. Analogously, it would be one thing for God to create trees with appropriate numbers of annular rings; but it would be quite another thing for God to create trees with "Adam loves Eve" or

- "Cain killed Abel" already carved into the bark.
- 36. The so-called *ontological argument*, an a priori argument based on the meaning of the word "God," is not affected. In the context of antirealism, the heavens are no longer "telling the glory of God" (Ps. 19:1), and God's "eternal power and divine nature" cannot reasonably be "understood and seen through the things [God] has made" (Rom. 1:20), for although the natural phenomena are directly observable, the glory, power, and nature of god are not.
 - 37. Moltmann, God in Creation, 196.
- 38. Augustine's nonliteralistic interpretation of Genesis 1 is summarized in Taylor's introduction to *The Literal Meaning of Genesis*, 1:9: "The days of creation . . . are not periods of time but rather categories in which creatures are arranged by the author for didactic reasons to describe all the works of creation, which in reality were created simultaneously. Light is not the visible light of this world but the illumination of intellectual creatures (the angels). Morning refers to the angels' knowledge of creatures which they enjoy in the vision of God, evening refers to the angels' knowledge of creatures as they exist in their own created natures."
- 39. Keith Ward, God, Faith, and the New Millennium: Christian Belief in an Age of Science (Oxford: Oneworld, 1998), 43.
- 40. Langdon Gilkey, Maker of Heaven and Earth: A Study of the Christian Doctrine of Creation (Garden City, N.Y.: Doubleday/Anchor, 1965), 79. See further 15-40; also Ward, God, Faith, and the New Millennium, 43-50.
- 41. Claus Westermann, *Genesis: A Practical Commentary*, trans. David E. Green (Grand Rapids, Mich.: Eerdmans, 1987), 8.
 - 42. Ward, God, Faith, and the New Millennium, 47.
 - 43. Ibid., 44.
- 44. The New International Version obscures the issue by using the past perfect tense in English to render the simple perfect tense of the Hebrew text. Thus, "And the Lord God planted a garden in Eden" (Gen. 2:8), becomes "Now the Lord God had planted a garden." Similarly, "And out of the ground the Lord God formed every animal of the field and every bird of the air" (Gen. 2:19) becomes "Now the Lord God had formed out of the ground all the beasts of the field and all the birds of the air."
 - 45. Ward, God, Faith, and the New Millennium, 50-53.
- 46. Phil. 2:6-8. See John Polkinghorne, ed., *The Work of Love: Creation as Kenosis* (Grand Rapids, Mich.: Eerdmans, 2002), a collection of essays by various authors including Ian Barbour, Arthur Peacocke, Holmes Rolston, III, George Ellis, Jürgen Moltmann, and Keith Ward, as well as Polkingorne himself. For earlier and much briefer discussion, see, for example, Rolston, "Does Nature Need to Be Redeemed?" 218-20; Ward, *God, Faith, and the New Millennium*, 41-45; Nancey Murphy, *Reconciling Theology and Science: A Radical Reformation Perspective* (Kitchener, Ont.: Pandora Press, 1997), 70-72.
 - 47. Murphy, Reconciling Theology and Science, 70
 - 48. Rolston, "Does Nature Need to Be Redeemed?" 50.

Murphy, Reconciling Theology and Science, 72.

- 49. Helmut Thielicke, *How the World Began: Man in the First Chapters of the Bible* (Philadelphia: Fortress, 1961), 59-71, 76; Gilkey, *Maker of Heaven and Earth*, 215-24.
 - 50. Ward, God, Faith, and the New Millennium, 49.
- 51. Especially Luke 4:16-31; Mark 2:23-28 = Matt. 12:1-8 = Luke 6:1-5; also Mark 1:21-28 = Luke 4:31-41; Mark 1:29-34; Mark 3:1-6 = Matt. 12:9-14 = Luke 6:6-11; Mark 6:1-6 = Matt. 13:53-58; Mark 15:42-43; Mark 16:1-2 = Matt. 28:1; Matt. 24:15-22; Luke 4:16-31; 13:10-17; 14:1-76; 23:50-56; John 5:2-18; 7:14-24; 9:1-17; 19:31.
 - 52. "Negotiating the Creation-Evolution Wars," 45.

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