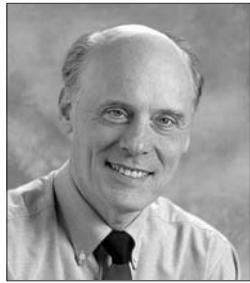




Dialogue: Response

Additional Explanations on Concordism: A Response to Paul Seely's Critique



Hugh Ross

Perhaps our greatest point of disagreement has to do with divine revelation. I take literally the Bible's explicit claim that God has spoken to humanity through both the words of the Bible and the world of nature.

Hugh Ross is founder and president of Reasons To Believe (RTB), an institute that provides research and teaching on the harmony of God's revelation in the Bible with God's creative expression in the facts of nature. After earning a B.Sc. in physics from the University of British Columbia and a Ph.D. in astronomy from the University of Toronto, Ross continued his research on quasars and galaxies as a postdoctoral fellow at the California Institute of Technology. During that time he began serving on the pastoral staff at Sierra Madre Congregational Church, where he still teaches. Today, in addition to writing books and overseeing RTB, Ross lectures around the world and hosts a weekly live Webcast, Creation Update.

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Paul Seely's charitable comments about my work (and that of other "concordists") are much appreciated. I am also grateful to the PSCF editor for allowing me this opportunity to respond to the critique.

Seely takes exception to my assertion that God's two books of revelation, one verbal (the Bible) and one expressed in action (nature), are totally truthful. Perhaps our greatest point of disagreement has to do with divine revelation. I take literally the Bible's explicit claim that God has spoken to humanity through both the words of the Bible and the world of nature. If God, by his nature, does not lie, deceive, or contradict, then the record of biology, for example, will not contradict the record of physics, nor will the message in Genesis contradict that in Romans. Neither do I see any possibility for contradiction between what God reveals in the Bible and what he reveals in nature's record.

However, I do expect disagreements between Christian theology and science. Christian theology is humans' attempt to interpret the Bible's words. Science is humans' attempt to interpret nature's record. Given that human knowledge remains incomplete and human interpretation potentially flawed, conflicts between Christian theology and science can be expected. One

value of a concordist hermeneutic is this: As scholars seek to reconcile apparent conflicts, they often ferret out faulty interpretations and push back the curtains of ignorance. A concordist hermeneutic is the heart and soul of the scientific method, and concordism gave significant impetus to the scientific revolution.

One fallacy in Seely's critique lies in his presumption that a proven failure on my part (or another interpreter's part) to concord Genesis 1–11 perfectly with nature's record would prove the fallibility of Genesis 1–11. Such a proof would simply document my fallibility, however, not (necessarily) the Bible's inaccuracy. But I must go on to ask if Seely truly has identified my various "failures" to concord Genesis 1–11 with scientific facts. Let me address his primary charges in the order they appear:

Charge 1: "There is a virtually unanimous agreement among qualified Old Testament scholars that the sun, moon, and stars were created on the fourth day, not just made to appear." The "made-to-appear" interpretation is an unsupported "private interpretation" (p. 37).

Response 1: A look at four of the most extensive and widely popular commentaries on the opening chapters of Genesis¹ says otherwise. Only two address *when* the sun, moon, and stars were created. Of those two, one embraces my interpretation,² the other Seely's.³ Of the three best-selling books targeting Bible difficulties,⁴ only two take up the issue; both support my interpretation.⁵ A fairer assessment would be that many reputable Old Testament commentaries omit discussion of *when* God created the sun, moon, and stars—most likely because they see Genesis 1 by itself as insufficiently specific.

Another distortion appears in Seely's discussion of the word "created." Whereas Gen. 1:1 says, "God created (*bara*) the heavens and the earth," Gen. 1:14 says, "Let there be (*haya*) lights." Old Testament scholars agree that the phrase "the heavens and the earth" represents the entire physical universe, so I concluded that the creation of the sun, moon, and stars occurred before the six creation days. Thus, these objects' appearance on day four meant they became visible from Earth's surface for the first time on that day. This interpretation seems consistent with Gen. 1:16. The verb translated "made" takes the form for action completed in the past.⁶ I also tested this interpretation against the twenty or more other creation-themed passages in the Bible. None contradicted it, and one provided support: "I made the clouds its garment and wrapped it in thick darkness."⁷ This verse, from a creation account in Job, comments on each of the six creation days. It explains the "darkness ... over the surface of the deep" (Gen. 1:2) as the result of Earth's opaque atmosphere (which initially allowed no light through), not of the sun's nonexistence.

Charge 2: "Neanderthals would have to be considered true human beings" (p. 38).

Response 2: Seely's citations are out of date and were disputed even at the time of their publication. An abundance of recent research findings link spiritual activity only to *Homo sapiens sapiens*.⁸ Further, while evidence points to several "cultural big bangs" (virtual explosions of clothing, jewelry, art, music, and tool use) coincident with the emergence of *Homo sapiens sapiens*, no undisputed evidence for clothing, jewelry, advanced tools, "worship" activity, or advanced art and music has been found for Neanderthals.⁹

Stronger evidence that Neanderthals were not human comes from DNA. Mitochondrial DNA has been analyzed from the remains of twelve Neanderthal specimens. The variation in this DNA is remarkably low, indicating Neanderthals experienced little change over time.¹⁰ When compared to human mitochondrial DNA, the difference is so stark as to persuade researchers Neanderthals made no contribution to the human gene pool.¹¹ Recently, researchers announced the recovery of intact Y-chromosome DNA from Neanderthals.¹² I predict this DNA will add to the evidence that Neanderthals are primates, not humans.

Charge 3: *The Genesis genealogies cannot be "stretched" to accommodate Adam's creation roughly 50,000 years ago* (p. 38).

Response 3: Given probable systematic effects, the conservative scientific date for Adam and Eve would be $50,000 \pm 30,000$ years ago.¹³ That error bar is significant and suggests that more research is needed. Second, no Bible scholar can claim to know how many gaps occur in the Genesis genealogies. The theological literature includes attempts to push the Genesis genealogies back far enough to accommodate the first *Homo erectus* species (circa 1.8 million years ago).

Most conservative evangelical scholars object to this extreme stretching, and yet they appear to have no problem with dates as far back as 100,000 years. I have confirmed this point firsthand in my lectures on seminary campuses.

The book, *Who Was Adam?* proposes a calibration for the Genesis 5 and 11 genealogies.¹⁴ Given the fairly accurate historical date for Abraham (4,000 years ago) and the carbon-14 date for the breaking of the Bering land bridge ("in his [Peleg's] time the earth was divided"¹⁵), and estimating the actual time between each pair of recorded patriarchs as proportional to the recorded life spans for that pair, the date for the creation of Adam would be roughly 50,000 years ago.

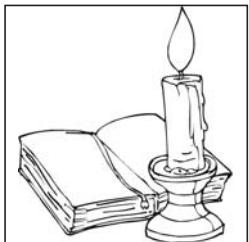
Charge 4: *There is a time gap between the biblical assertion crops and animals were domesticated at the time of Adam's immediate offspring and the scientific evidence such domestication occurred about 10,000 years ago* (p. 39).

Response 4: As yet, a big difference exists between the level of domestication the Bible implies for the earliest humans and the level scientists can measure. The scientific detection of domestication requires a significant shift in the DNA or in the skeletal/morphological statistics for the domesticated species. As *The Genesis Question* explains, these scientific tools do not measure the beginning of domestication but rather the beginning of large-scale organized agriculture, with intense breeding selection continuously practiced for many generations.¹⁶ For this reason, such tools would be unable to detect the kind of plant and animal domestication practiced by twentieth-century Stone Age tribes.

Contrary to what Seely claims, the taming of wild mammal herds and the cultivation and processing of wild cereal grains is consistent with the statement, for example, in Genesis 4 that "Abel kept flocks and Cain worked the soil." Likewise, there is nothing in Genesis 4 that would demand Cain's city be large or constructed of materials capable of surviving 40,000-plus years of natural erosion and human exploitation.

Charge 5: *If the biblical data in Genesis 4 and 9 are accepted as accurate, the earliest possible date for the Flood is c. 5000 BC* (p. 39).

Response 5: Seely's claim rests on the biblical references to pre-Flood agriculture, domesticated cattle, and cities and implements of bronze and iron. As noted above, there is no biblical imperative to interpret agriculture, domesticated cattle, and cities in such a modern context. Moreover, the pre-Flood passages mention only one "city," the one built by Cain. As for bronze and iron, archeology demonstrates that ancient nations frequently gained and lost metallurgy as a consequence of invasion and genocide. It seems plausible that the lengthy life spans of pre-Flood peoples spurred isolated instances of technological



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advance, but the reported wickedness of these same peoples would likely have destroyed such advance, as well as any evidence of it.

Seely's comment that "true human beings were very probably in Australia long before" 30,000 BP (before the present) seems questionable.¹⁷ For example, recent carbon-14 analysis shows the Jinmium relics' (thermoluminescence) date of 50,000–75,000 BP as too ancient by a factor of twenty.¹⁸ Without some kind of calibration, luminescence dates simply provide upper limits. Nevertheless, I see no basis for disputing other measurements indicating Aboriginal settlement of Australia 25,000–40,000 years ago.¹⁹

Charge 6: *The Bible claims that Noah's flood was at least 8,000 feet deep and global in extent* (p. 39).

Response 6: Genesis 7 is not the only biblical text addressing the depth and extent of the Flood. Psalm 104 (in addition to Job 38–42) comments on all six creation days. Concerning creation day three, it says:

You [the Creator] covered it with the deep as with a garment; the waters stood above the mountains. But at your rebuke the waters fled, at the sound of your thunder they took to flight; they flowed over the mountains, they went down into the valleys, to the place you assigned for them. You set a boundary they cannot cross; never again will they cover the earth.²⁰

The last sentence virtually eliminates the possibility that Noah's flood covered the globe. Other Old Testament texts (Job 38:8–11; Ps. 33:7–9; and Prov. 8:23–29) also make this point. In the New Testament, Peter offers additional comment: "... the world of *that time* was deluged and destroyed" (emphasis added).²¹ Peter's word choice implies Noah's world was not the same as the (his) current world (the Roman Empire²²).

The meaning of Gen. 7:19 is clarified within the text. One can compare Noah's view of the receding waters with that of the dove he releases. (Note that Gen. 8:6 explicitly refutes Seely's assertion, "Noah did not see outside the ark until the surface of the ground was completely dried up" [p. 40].) From Noah's vantage point the mountains (or hills) were visible (Gen. 8:5), but the dove

saw only "water over all the surface of the earth" (Gen. 8:9). At first Noah (Genesis 7), like the dove in Genesis 8, could see nothing but water "over all the surface of the earth."

Seely argues that a flood depth of only two or three hundred feet would be inadequate to move the ark to the base of the mountains of Ararat (about 700 feet above sea level). He misunderstood my point. My reference was to two or three hundred feet above the Mesopotamian Plain, not above sea level,²³ and in saying the base of the Ararat hills is "a few hundred feet above sea level,"²⁴ I meant that to be understood (quite normally) as between 300 and 900 feet. Anticipating my response to this point, Seely claims that floodwaters flowing out to the Persian Gulf would generate a current too strong to allow the ark to come to rest on the foothills of Ararat. As the map in *The Genesis Question* shows, the slope of the Mesopotamian Plain from the base of the mountains of Ararat to the Persian Gulf averages only 0.02 percent.²⁵ Thus, water in the Mesopotamian Plain would tend to stand rather than flow, a situation similar to what happens when the lower Mississippi Valley floods. The Genesis text bears out this scenario when it reports God removed the water by sending a wind.²⁶ That same wind may have driven the ark toward the base of the Ararat foothills. One reason for the floodwaters' slow (nearly year-long) recession may have been the addition of runoff and snow melt from the hills and mountains surrounding the Mesopotamian Plain.²⁷

Charge 7: *Use of "baked brick" and "asphalt for mortar" proves the Tower of Babel incident could not have occurred any earlier than 3500 BC* (p. 41).

Response 7: His point may seem reasonable at first, in that the earliest (large) brick-and-mortar structures unearthed by archeologists date back to about 3500 BC. However, the Hebrew text is unclear as to exactly what kind of brick-making and brick-laying technology is implied. In any case, a lack of evidence does not constitute proof. There is no basis for determining whether anyone attempted to build such structures. Moreover, the biblical text does not specify the size of either the city or the tower, the latter of which was never completed. The text says only that the building project had begun. Given the effects

of erosion, the limitations of archeological research, and the common practice among ancient peoples of exploiting building materials from ruins, the lack of evidence cannot be claimed as proof of conflict between the text and science.

Charge 8: *The contradiction between the “bed” in Gen. 47:31 and “staff” in Heb. 11:21 proves the Bible contains historical errors* (p. 42).

Response 8: The original Hebrew manuscripts of Genesis did not include vowels. Without vowels there is no distinction between the Hebrew words for “staff” and “bed.” Noting this fact, the NIV linguistic team translated the word in Genesis as “staff,” with a footnote referencing its possible meaning as “the head of his [Jacob’s] bed” (also an object used for support). However, even if in some instances a small translation error were to creep in (and such errors have been detected, though none significantly affect the meaning of the text), that occurrence does not negate what is meant by “inerrancy.”²⁸ Biblical inerrancy does not claim all translations are without error only that the original autographs accurately communicate what God by his Spirit inspired the various writers to record.

Charge 9: *Genesis 1–11 accommodates early Mesopotamian beliefs and traditions about early human history – even to the point of “departing from the facts and clothing the message in the cultural terms of the people to whom it is given”* (p. 43).

Response 9: In *The Genesis Question*, I provide a side-by-side comparison of Genesis 1–11 with the Mesopotamian *Enuma Elish* and the *Gilgamesh Epic*. That comparison shows that the Bible in no way borrows from, acquiesces to, or accommodates early Mesopotamian beliefs and traditions.²⁹ In fact, so different are the agendas, motives, chronologies, and scientific and historical details that most conservative Old Testament scholars view Genesis 1–11 as a bold polemic against the creation and flood myths of the early Middle Eastern world.³⁰

I must also question Seely’s premise that Bible texts are aimed exclusively (or primarily) at their writers’ contemporaries. As Peter points out, the human authors themselves recognized that much of what they recorded was not for their own or their contemporaries’ comprehension but rather for future generations.³¹ The same Peter says, “For prophecy never had its origin in the will of man, but men spoke from God as they were carried along by the Holy Spirit.”³² Since the Holy Spirit reveals truth, not falsehoods,³³ Peter’s statement affirms Scripture’s historical and scientific accuracy.

Charge 10: *“Neither Jesus nor any of the apostles or prophets ever set forth a teaching aimed to teach science or correct the science of the times.” God “does not reveal scientific truths which would advance the scientific understanding of his chosen people beyond that of the rest of humankind,” leaving it “completely in the hands of humankind”* (p. 43).

Response 10: This is where I take personal exception to Seely’s position. God brought me to faith through the abundant and up-to-date scientific accuracy of the Bible’s content vis-à-vis the sparseness and inaccuracy of such content in other “holy” books. The quantity and specificity of the Bible’s commentary on nature’s record stunned me. Much of what I found proved valid thousands of years ahead of its time.

A good example of science in advance of its time would be Bible passages describing the big bang cosmology. As *The Creator and the Cosmos* documents,³⁴ the Bible repeatedly and explicitly identifies (1) a single cosmic beginning, including the beginning of space and time; (2) fixed physical laws; and (3) continuous expansion of the universe. Until the twentieth century, only the Bible revealed all these cosmic features. As I described in *The Fingerprint of God*, for several decades many astronomers resisted the big bang model precisely because of its biblical implications.³⁵

The Genesis creation accounts also accurately predicted Earth’s primordial conditions: opaque atmosphere, universal surface water, and conditions unfit for life. Genesis teaches that God created life in a progression from simpler to more complex. It says God ceased creating life after God created Eve. That is, the Bible predicts a specific history of life on Earth and a specific, dramatic change in speciation.

Finally, because no one can claim *complete* and *perfect* understanding of either the Bible or nature’s record, the concordist’s job is never done. For that reason, I continue to revise and update books, such as *The Creator and the Cosmos* and *The Genesis Question*. Readers interested in my response to those parts of Seely’s critique not addressed here are encouraged to call our weekly live Web broadcast, *Creation Update*,³⁶ and to visit our website, which includes archives of past episodes.³⁷ *

Notes

¹Victor P. Hamilton, *The New International Commentary on the Old Testament: The Book of Genesis, Chapters 1–17* (Grand Rapids, MI: Eerdmans, 1990): 126–8; Gordon J. Wenham, *Word Biblical Commentary: Genesis 1–15* (Waco, TX: Word Books, 1987): 21–3; Bruce K. Waltke with Cathi J. Fredricks, *Genesis: A Commentary* (Grand Rapids, MI: Zondervan, 2001): 56–60, 62–3; Allen P. Ross, *Creation & Blessing: A Guide to the Study and Exposition of Genesis* (Grand Rapids, MI: Baker Book House, 1988): 110–1.

²Allen P. Ross, *Creation & Blessing*, 110–1.

³Wenham, *Word Biblical Commentary*, 21–3.

⁴Gleason L. Archer, *Encyclopedia of Bible Difficulties* (Grand Rapids, MI: Regency Reference Library, Zondervan, 1982): 61–2; Walter C. Kaiser Jr., et al., *Hard Sayings of the Bible* (Downers Grove, IL: InterVarsity Press, 1996): 88–9; Norman Geisler and Thomas Howe, *When Critics Ask: A Popular Handbook on Bible Difficulties* (Wheaton, IL: Victor Books, Division of Scripture Press Publications, 1992): 30.

⁵Archer, *Encyclopedia of Bible Difficulties*, 61–2; Geisler and Howe, *When Critics Ask*, 30.

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⁶Archer, *Encyclopedia of Bible Difficulties*, 61–2.

⁷Job 38:9 (NIV).

⁸Fazale Rana with Hugh Ross, *Who Was Adam?* (Colorado Springs, CO: NavPress, 2005): 77–95, 179–97.

⁹Rana with Ross, *Who Was Adam?* 179–97. The “Neanderthal flute” from a Slovenian cave has been shown more likely to be a leg bone perforated by the teeth of a large carnivore (Richard G. Klein with Blake Edgar, *The Dawn of Human Culture* [New York: Wiley, 2002]: 192–6.) We respond to the Chatel Peronian controversy over late Neanderthal technology on p. 196 of *Who Was Adam?*

¹⁰Matthias Höss, “Neanderthal Population Genetics,” *Nature* 404 (2000): 453–4; Igor V. Ovchinnikov, et al., “Molecular Analysis of Neanderthal DNA from the Northern Caucasus,” *Nature* 404 (2000): 490–3; Matthias Krings, et al., “A View of Neanderthal Genetic Diversity,” *Nature Genetics* 26 (2000): 144–6; Ralf W. Schmitz, et al., “The Neanderthal Type Site Revisited: Interdisciplinary Investigations of Skeletal Remains from the Neander Valley, Germany,” *Proceedings of the National Academy of Sciences, USA* 99 (2002): 13342–7; David Serre, et al., “No Evidence of Neanderthal mtDNA Contribution to Early Modern Humans,” *PLoS Biology* 2, no. 3 (2004): e57; Rana with Ross, *Who Was Adam?* 185–6.

¹¹Serre, et al., e57; Matthias Krings et al., “Neanderthal DNA Sequences and the Origin of Modern Humans,” *Cell* 90 (1997): 19–30; Rana with Ross, *Who Was Adam?* 183–90.

¹²Rex Dalton, “Neanderthal DNA Yields to Genome Foray,” *Nature* 441 (2006): 260–1.

¹³Rana with Ross, *Who Was Adam?* 55–95.

¹⁴Ibid., 46–7.

¹⁵Genesis 10:25 (NIV).

¹⁶Hugh Ross, *The Genesis Question*, 2d ed. (Colorado Springs, CO: NavPress, 2001): 185–7.

¹⁷Roger Lewin and Robert A. Foley, *Principles of Human Evolution*, 2d ed. (Oxford, UK: Blackwell Publishing, 2004): 497–9; James F. O’Connell and Jim Allen, “When Did Humans First Arrive in Greater Australia and Why Is It Important to Know?” *Evolutionary Anthropology* 6 (1998): 132–46.

¹⁸Richard Roberts, et al., “Optical and Radiocarbon Dating at Jinmium Rock Shelter in Northern Australia,” *Nature* 393 (1998): 358–62.

¹⁹Bruno David, et al., “New Optical and Radiocarbon Dates from Ngarrabullgan Cave, a Pleistocene Archeological Site in Australia: Implications for the Comparability of Time Clocks and for the Human Colonization of Australia,” *Antiquity* 71 (1997): 183–8.

²⁰Psalm 104:5–9 (NIV).

²¹2 Peter 3:6 (NIV).

²²Romans 1:8 (NIV).

²³Hugh Ross, *The Genesis Question*, 149–50.

²⁴Ibid., 170.

²⁵Ibid.

²⁶Genesis 8:1 (NIV).

²⁷More detailed explanations of the geography of Noah’s flood can be found in Carol A. Hill, “Qualitative Hydrology of Noah’s Flood,” *Perspectives on Science and Christian Faith* 58 (June 2006):

120–9; Alan E. Hill, “Quantitative Hydrology of Noah’s Flood,” *Perspectives on Science and Christian Faith* 58 (June 2006): 130–41; Steve Sarigianis, “Noah’s Flood: A Bird’s-Eye View,” *Facts for Faith*, Quarter 3 (2002): 16–25; Hugh Ross, “Water-Level Math,” *Facts for Faith*, Quarter 3 (2002): 23.

²⁸The New International Version does note that both “bed” and “staff” are permissible translations.

²⁹Hugh Ross, *The Genesis Question*, 59–62, 171–2.

³⁰For example, all the sources cited in note #1 take this position.

³¹1 Peter 1:10–12 (NIV).

³²2 Peter 1:21 (NIV).

³³Numbers 23:19; Pss. 12:6, 119:160; Prov. 30:5; John 10:35; Heb. 6:18, (NIV).

³⁴Hugh Ross, *The Creator and the Cosmos*, 3rd ed. (Colorado Springs, CO: NavPress, 2001): 23–9. A slightly abridged form of chapter 3, “Big Bang—The Bible Taught It First,” is posted on the Reasons To Believe website: www.reasons.org/resources/fff/2000issue03/index.shtml#big_bang_the_bible_taught_it_first.

³⁵Hugh Ross, *The Fingerprint of God*, 2d ed. (New Kensington, PA: Whitaker House, 1991): 53–138.

³⁶Every Tuesday from 11 AM–1 PM Pacific time, three or more members of the Reasons To Believe scholar team describe how a few of the past weeks’ scientific discoveries provide more evidence for the Christian faith. *Creation Update* is broadcast over the Living Way Radio Network and live on the Web at either www.reasons.org/resources/multimedia/rtbradio/ or www.oneplace.com/ministries/creation_update/. Listeners are encouraged to call in with their questions at 866-RTB-RADIO.

³⁷Archives of past *Creation Update* broadcasts along with detailed show notes and hotlinks to the cited literature may be found at: www.reasons.org/resources/multimedia/rtbradio/cu_archives/index.shtml.

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