

Where was Eden? part 1 – examining pre-Flood geographical details in the biblical record

Lita Cosner and Robert Carter

The Bible includes only sparse geographic data in its descriptions of the pre-Flood world. This has led to widely divergent theories on the relationship between antediluvian and postdiluvian topography. The majority of place names that are repeated on both sides of the Flood are simple generic words describing common features of the pre- and post-Flood world. No modern candidate for the location of Eden fulfils the clear biblical conditions for the location such as one river splitting into four. This is because Eden is not placed in reference to modern geographical landmarks, but to pre-Flood topography. The goal of this study is to provide a thorough analysis and refutation of popular modern locations for Eden in order to better establish the idea that Eden was utterly destroyed by the Flood and that attempts to place Eden in a modern geographical context are misguided.

The geography of Genesis 2 is difficult to interpret. As far back as Josephus we find attempts to locate the setting of the Garden in Eden.¹ Augustine affirmed that Eden was an actual place, though he allowed for allegorical meanings.² He also tried to explain the four rivers of Eden by positing that some might have flowed underground.³ Martin Luther believed that the global Flood changed the appearance and perhaps the sources of the rivers and greatly changed the face of the earth, but he located Eden in Mesopotamia anyway.⁴ John Calvin believed that the modern Tigris and Euphrates were the Hiddekel and P'rath of Genesis 2. He imagined a place where the two formerly joined to each other was the 'one river', and where they split upstream and downstream were the 'four headwaters' (figure 1). He expressly rejected the idea that the Flood changed the landscape:

“... still, I assert, it was the same earth which had been created in the beginning. Add to this, that Moses (in my judgment) accommodated his topography to the capacity of his age.”⁵

Examples of this sort of interpretation could be multiplied, but the above is sufficient to establish that scholars have been putting forward problematic and mutually inconsistent explanations for the location of Eden for millennia.

However, the view that Eden and the rivers of Genesis 2 are located in Mesopotamia accidentally opened the door for long-age interpretations because it minimized the geological effects of the Flood. Modern biblical creationists attribute the geological record to the global Flood, and so generally accept that the geography described in Genesis 2 would have been destroyed. They explain the reoccurrence of certain post-Flood place names as re-naming after pre-Flood landmarks.^{6,7} However, this study will show that, while on

the right track, this explanation is incomplete and fails to account for all the data.

James R. Hughes has written perhaps the most comprehensive study on the geography of Eden in his 1997 paper for the CRSQ,⁸ which was a response to a *Westminster Theological Journal* article attacking biblical creationist interpretations of Eden's geography.⁹ However, it seems useful to publish a survey in this journal with a slightly different emphasis, while giving due credit to those who have preceded us.

The goal of this study is to bring clarity to the text while refuting attempts to locate Eden in the post-Flood world. We intend to show: 1) The geographical landmarks in Genesis 1–11 are intended to be read as real-world places; 2) This geography does not exist anywhere on the present-day earth; and 3) The explanation for similar place names in the post-Flood landscape in most cases is more complex than re-naming after antediluvian landmarks.

Biblical evidence of pre-Flood geography

Most of the geographical data from the pre-Flood world comes from the Genesis 2 creation narrative:

“And the LORD God planted a garden in Eden, in the east, and there he put the man whom he had formed A river flowed out of Eden to water the garden, and there it divided and became four rivers. The name of the first is the Pishon. It is the one that flowed around the whole land of Havilah, where there is gold. And the gold of that land is good; bdellium and onyx stone are there. The name of the second river is the Gihon. It is the one that flowed around the whole land of Cush. And the name of the third river is the Tigris, which flows east of Assyria. And the fourth river is the Euphrates



Figure 1. A map from Calvin's Genesis commentary (Calvin⁹)

(Genesis 2:8, 10–14).”

It is worth noting that the garden is *in* Eden (Genesis 2:8), so Eden was a larger area than the spot occupied by the garden. “In the east” probably indicates that the garden was in the eastern part of the region. The name ‘Eden’ may be related to a Hebrew word meaning luxury or delight.¹⁰

The rivers are a key identifying feature of the geography surrounding Eden. As Currid states:

“After feeding the garden, the river leaves it and then divides into four ‘headstreams’. That term in Hebrew is related to the first word in the Bible, ‘beginning’; thus, when the river separates it breaks up into four ‘beginning streams’ or ‘headwaters’. These headwaters are the sources of four great rivers, and

these will be identified in the next verses.”¹¹

The feature of one river splitting into four rivers would require interesting topography seen nowhere in the modern, post-Flood world (see part 2 of this paper¹²).

The Pishon river and the land of Havilah

The Pishon flowed “around the whole land of Havilah, where there is gold”. Havilah must have been adjacent to Eden, or nearly so, and the course of the river must have twisted so that it could be said to water or flow around the whole land. The name of the river does not occur again in Scripture. Hughes comments:

“When one reads the account in Genesis 2:8–14, he gets the impression that the Pishon was a significant river equal in importance to the other rivers mentioned. It seems to be incredible that a major river such as the Pishon could disappear from the historic and geographic records so that it left effectively no historic trace of its location. Much of the geography of Moses’ day is still identifiable. If the Pishon was a major river in Moses’ day, then we would expect to find other historical references to it, or at least be able to identify its location more easily. The fact that Munday has to appeal to a dry wadi as a potential location for the Pishon, seems to indicate that the Pishon did not exist after the Flood.”⁸

There are places called ‘Havilah’ both before and after the Flood, as well as two descendants of Noah (the second son of Cush and the twelfth son of Joktan; Genesis 10:7, 29) with that name. Etymologically the word means ‘land of sand’ or ‘sandy’.⁸ The post-Flood area by that name was probably named after the Semitic/Joktanite Havilah, and it was part of the area where the Ishmaelites (also Semites) settled (Genesis 25:18). Amalekites (another Semitic tribe) lived there until Saul defeated them (1 Samuel 15:7).

Table 1. Geographic and name references in the pre-Flood world. Words in italics appear both before and after the Flood.

Proper Names	Place Names	Rivers	Natural Resources	Cardinal Directions
Adam, Eve	<i>Eden</i>	The garden river	<i>Gold</i>	East
Cain's line: Cain,	The Garden	Pishon	<i>Bdellium</i>	
Enoch (1), Irad, Mehujael,	<i>Havilah</i>	Gihon	<i>Onyx</i>	
Methushael, Lamech (1), Adah,	<i>Cush</i>	<i>Hiddekel/Tigris</i>	<i>Iron</i>	
Zillah, Jabal, Jubal, Tubal-cain,	<i>Assyria</i>	<i>P'rath/Euphrates</i>	<i>Copper</i>	
Naamah	Enoch (1)		<i>Tin (Cu+Sn=bronze)</i>	
Abel's line: Abel, Seth, Enosh,	Nod		<i>Wood</i>	
Kenan, Mahalalel, Jared, Enoch			<i>Pitch</i>	
(2), Methuselah, Lamech (2),				
Noah, Shem, Ham, Japheth				

The Gihon river and the land of Cush

The Gihon river flowed “around the whole land of Cush”. Elsewhere in Scripture, there is a Gihon spring which supplied Jerusalem with water (2 Chronicles 32:30; 1 Kings 1:38, 45). The word means ‘to bubble’⁸ or ‘to burst forth’ and is thus a generic name. The location of the river associated with the Garden in Eden, however, is a mystery. As Hughes notes:

“The location of the Gihon cannot be identified in contemporary geographic terms, and appears rarely in the historical records. As with the Pishon it is hard to believe that the location of a second major river in Moses’ day would no longer be identifiable.”⁸

Because the Gihon is connected to Cush, some Medieval commentators tried to place Eden in Africa, with the Nile as the Gihon.¹³ However, this does not allow for the four rivers to split off from one river; there is no way the Nile can be connected to the Tigris and Euphrates. As Hughes said:

“The fact that Cush in the remainder of the OT is not used to refer to a southern Mesopotamian location, and instead is found in a very distant geographic location ... supports the view that the author is describing a pre-Flood geography, not a post-Flood geography.”⁸

Elsewhere in Scripture, Cush is consistently associated with an area south of Egypt, not an area in Mesopotamia. But there is another candidate for this identification:

“Because Nuzi tablets contain the word *Kussu* for the Kassite people who inhabited the plains and hills east of Babylonia during the second millennium BC, Speiser identified the Cush of Genesis 2 as Kassite country.”⁹

Since it is named after a son of Ham, the African Cush is a post-Flood location. But the Kassites were also a post-Flood people. Either way, ‘Cush’ in Genesis 2 is almost certainly not one of these geographic locations. Also, the Kassites lived in southern Mesopotamia, and there is no candidate for the Gihon river in this area (see figure 2).

The Hiddekel river and the land of Asshur

The third river is the Hiddekel, which means ‘arrow’, ‘dart’, or ‘swiftness’.⁸ In Genesis 2, the Hiddekel is simply said to flow “east of Asshur”. The only other place it is mentioned in Scripture is in Daniel 10:4 where it is applied to the modern Tigris river.

The Hiddekel is said to flow “east of Asshur”, but to which ‘Asshur’ is this referring? The antediluvian region named Asshur (note that all the other localities in this passage are regions) or the post-Flood city that was named after Asshur, the second son of Shem (Genesis 10:22)? Also, the Tigris runs through the *centre* of the ancient kingdom of Assyria, so this is no help.

The P’rath river

The fourth river, P’rath, is named with no other geographical data. Elsewhere in Scripture, P’rath refers to the Euphrates, and it is significant because it forms the eastern border of the land promised to Abraham’s descendants as well as a major geographical landmark (Genesis 15:18; 31:21; 36:37; Exodus 23:31; Deuteronomy 1:7; 11:24; and many more outside the Pentateuch). If the P’rath of Genesis 2 really were the modern river, it’s surprising that it is dismissed so quickly with no other descriptors. Some might argue that the sheer familiarity of this major regional river meant that no other description was necessary, but this assumes the river is the same one mentioned in Genesis 2.

Other geographic references

There are only a few other verses that give references to geography or place names before the Flood:

“He [God] drove out the man, and at the east of the garden of Eden he placed the cherubim and a flaming sword that turned every way to guard the way to the tree of life” (Genesis 3:24).

Because the cherubim were placed to the east of the garden, one might assume there was only one possible entrance to the garden, and that it was at the east. One might also assume that Adam and Eve would have gone to the east of Eden. While it is always precarious to assume what the text does not explicitly state, their son certainly went east:

“Then Cain went away from the presence of the LORD and settled in the land of Nod, east of Eden. Cain knew his wife, and she conceived and bore Enoch. When he built a city, he called the name of the city after the name of his son, Enoch” (Genesis 4:16–17).

This passage also establishes that pre-Flood places were named after both significant historical events (‘Nod’ means wandering, a reference to God’s curse of Cain) and people (Enoch, Cain’s son).¹⁴

The place names in Genesis 2 are generic words that deal mostly with easy-to-understand traits. These words are also easily reused, and we suggest they were, explaining how multiple people and places could have the same names. There is a strong tendency to repeat this pattern in modern societies. How many places exist that are named after simple and common terms? And how many places in the New World are named after places from England, France, Germany, or Spain?

The point is that the post-Flood people would naturally have recycled some names, named people after pre-Flood people (who then had post-Flood places named after them), or simply used names that were common before and after the Flood. They would have been as freely inventive as people are today. Thus, we would *expect* a few words to be

found on both sides of the Flood, but the appearance of such words is no more proof that Eden was located in these areas than that the Eiffel Tower is actually located in Paris, Texas.

Directionality

There is but one cardinal direction referenced in Genesis 2–4: east. The garden was in the east of Eden, the cherubim were placed to the east of the garden, and Cain settled to the east of that. This has caused many to look at ‘east’ in a metaphorical sense, as if ‘east’ was the direction of heaven or paradise. As Wenham’s Genesis commentary puts it:

“For in the East the sun rises, and light is a favorite biblical metaphor for divine revelation (Isa 2:2–4; Ps 36:10). So it seems likely that this description of ‘the garden in Eden in the east’ is symbolic of a place where God dwells.”¹⁵

But if Adam and Eve were removed from the garden toward the east, Eden would have been to their *west*, and east would then be associated with bad things. Significantly, when Israel and Judah went into exile, they also travelled east, and when the Israelites initially entered the Promised Land, they were travelling west.

Natural resources

The natural resources named in Genesis 2 must be found in any area put forward as a location for Eden (table 1). These are fairly common materials that can be found in scattered pockets across the globe. Bdellium refers either to a type of gemstone or to a plant resin of the kind found only in arid regions today. Onyx is a common mineral found across the world, but is noticeably lacking in the Middle East, as is tin. While it may seem natural to associate ‘pitch’ with the oil-rich Middle East, in fact, pitch historically has been derived from pine trees.¹⁶

Difficulties in finding Eden

Even *if* the pre-Flood Eden were findable, placing it in the Middle East would mean that Noah landed close to his starting point. If we reject the ‘local flood’ hypothesis, and if we assume the majority of the sedimentary rocks in the region are from the Flood, and if we believe the Ark floated for five *months*, why would we ever think Eden was located in Mesopotamia? The few correlations in place names are easily discounted and the majority of place names in Genesis 2 have no geographic attestation in the region. In fact, the only way to conclude Eden must be a Mesopotamian locale is to first adopt a low view of Scripture!

Difficulties in finding the four rivers

If one assumes the rivers of Eden can be located on modern maps, one has to start with the Tigris and Euphrates. This generally leads to one of two conclusions: Eden was in Armenia (close to the sources of the Tigris and Euphrates) or Lower Mesopotamia (close to where the two rivers come together). Beitzel in his influential Bible atlas proposes both as possibilities (figure 2).¹⁷ There are two chief problems with the Armenian interpretation: 1) While the Tigris and Euphrates have sources that are very close to each other, they do not come from the same source, much less split off from the same river; and 2) there is no trace of any candidate for Pishon and Gihon in the near vicinity. There are also two main difficulties with the Southern Mesopotamian location: the rivers are flowing the wrong direction (coming together, not separating). Not only that, but Pliny claimed the two rivers emptied into a common lake during the time of Alexander,¹⁸ and they may have had separate mouths earlier in the historical period.

Some suggest that the Persian Gulf could fit the description of Pishon. However, even Munday in his attempt to refute biblical creationists recognizes this view “requires a Hebrew disregard for any distinction between a sea and a river. Such a view has no biblical precedent, and appears impossible given the Genesis 2:10–14 enumeration of *four*



Figure 2. A modern Bible atlas’s designations for the location of Eden (from Beitzel¹⁷)



Figure 3. 'The Garden of Eden' by Thomas Cole (1801–1848)

rivers, two of which are obviously *not* seas.”¹⁹ Hill argues that the Pishon is a river in Saudi Arabia that existed in Moses’ day, but which has since dried up:

“But where is the Pishon river within the land of Havilah? There is no river flowing from the western mountains of Saudi Arabia down to the head of the Persian Gulf. There is no perennial river flowing across Saudi Arabia today, but there is evidence that such a river did flow there sometime in the past. Only four inches of rain a year now fall in Saudi Arabia, but during the periods from about 30,000 to 20,000 years BP (before present) and from about 10,000 to 6,000 years BP, the climate was much wetter than it is today. Even as late as 3500 BC (before Christ), ancient lakes are known to have existed in the ‘Empty Quarter’ of Saudi Arabia, which is today the largest sand desert in the world.”¹⁹

However, it is difficult to believe that if Moses was describing an ancient river of some prominence *in his day*, all references to that river would be lost to history.

Does Genesis intend to place Eden in the real world?

Some people acknowledge the evidence against placing Eden in Mesopotamia and thus conclude that Genesis never intended to give an actual geographic location for Eden in the first place. Ryle gives a classic expression of this view:

“The account which follows (11–14) is irreconcilable with scientific geography. But the locality of the garden planted by the Lord God, containing two wonder-working trees, is evidently not to be looked for on maps. In the description of the four rivers, we must remember that the Israelites possessed only a very vague knowledge of distant lands. They depended upon the reports of travellers who possessed no means of accurate survey. Mediaeval maps often present the most fantastic and arbitrary arrangement of rivers and seas to meet the conjectures of the cartographer. We need not be surprised, if the early traditions of the Hebrews claimed that the four greatest rivers of the world had branched off from the parent stream, which, rising in Eden, had passed through the garden of the Lord God.”²⁰

Similarly, Tremper Longman hypothesizes:

“Perhaps Eden is not a real place, but rather contributes to a figurative description of the origin of humanity. If so, we still need to ask what the imagery points to. The best answer is that Eden, whose very name means abundance or luxury, indicates that God provides all of humanity’s needs and more when they were first created.”²¹

However, this sort of ‘unearthly geography’ would be unprecedented in Scripture. As Kidner points out in his commentary, “verses 10–14 go to some lengths to present it as an actual, not an allegorical or mythical spot.”²² And Genesis

2 has the hallmarks of a genuine geographical description from an eyewitness. While the exact nature of the *toledoth* in Genesis has been debated in creationist circles, most would agree that they bear witness to eyewitness information.²³

Of course, there is nothing in the Bible itself to support Ryle's assertion that these people were ignorant of the lands around them. In fact, the Israelites were of Mesopotamian extraction (Terah, Abraham, Sarah, Rachel, Leah, and the 12 tribal patriarchs were born there, and Jacob lived there for many years), used a legal code similar to those in use in Mesopotamia,²⁴ built houses in a Mesopotamian style,²⁵ and spoke a Semitic dialect similar to those in north-west Mesopotamia, and all this was true after hundreds of years in Egyptian bondage. And it is hardly fair to compare Medieval maps with the knowledge of people in 2000 BC or earlier, especially since somewhere in between people invented complex astronomical predictors like the Antikythera mechanism²⁶ and had calculated the circumference of the earth with amazing accuracy.²⁷

Was the description of Eden intended to be intelligible to a post-Flood audience?

One assumption some interpreters make is that the geographical details in Genesis must have been intelligible to readers *at the time of authorship*. While true, if Moses was acting as the editor of some sort of written tradition (not out of the question), accurate geographical details about the pre-Flood world could have carried over from those documents to Genesis.

Where would Moses get these pre-Flood documents? While many have pointed out that there was substantial overlap in the long lifespans of the patriarchs both pre- and post-flood, there is no indication in Scripture that this is how a record was passed down. In fact, Noah and his sons disappear from the narrative before the Babel narrative, even though they all were alive at that time. By the time Abram comes on the scene, he is an idolater and there is very little evidence of established worship of Yahweh anywhere (other than the presence of Melchizedek later in the Abrahamic narrative).

Hughes communicates this option well, despite holding to the less popular theory that the *toledoth* of Genesis are colophons.⁸ He argues that "a major portion of the book of Genesis was not in fact composed by Moses, but by others, including Adam (whether written or handed down orally)." In his paper he notes the generic nature of names of pre-Flood places:

"Of the eight geographic locations mentioned in Genesis 2, only three (Tigris, Asshur, Euphrates) are easy to locate in modern geographic terms, and then only if interpreted in a particular way (e.g. reading

Asshur as a city rather than as a territory), and only if it is assumed that Moses wrote Genesis two for a contemporary audience. ... Rather than being a straightforward matter of mapping the references in Genesis two to modern geography, it appears from the evidence that it may not be possible to identify Eden's location, even in general terms. The evidence in fact points more clearly to a unique pre-Flood geography and the reuse of general terms for geographic terms in a post-Flood context."⁸

Even Munday concedes: "Moses may have relied on earlier records (both oral and written), and interpolations were probably made after him by copyists."⁹

Conclusions

If one assumes biblical inerrancy and that Genesis 2 gives us an actual geographical description of a real place, the text gives three options for interpretation. Each of these views has been held by biblical creationists who were inerrantists, so it is important to understand that scholars struggle with these concepts. Let us then look at each view to see which best fits the biblical and geographical evidence.

Option 1: Pre-Flood and post-Flood designations are identical

The first option is that the Havilah, Cush, Assyria, Tigris, and Euphrates in Genesis 2 are the same as their post-Flood designations.

As we noted, this option fails to appreciate the devastation the Flood would have had on the continents, literally reshaping the surface of the planet as miles of sediment were eroded and laid down. Furthermore, as we have shown, it is impossible to match the Bible's geographical description with the names in Genesis 2. So while biblical creationists such as Luther, Calvin, and many others held this view historically, it is no longer a viable biblical creationist option in light of current geological knowledge.

Option 2: Post-Flood places are re-named from pre-Flood places

The most common modern creationist explanation is that early post-Flood people renamed landmarks after places they remembered from the pre-Flood world. While this is probably the case for the Hiddekel and P'rath, we know for instance that post-Flood Cush was named after a descendant of Ham, and there were multiple Havilahs, and so on. So these post-Flood places were demonstrably named after post-Flood people, meaning that in these cases simple renaming is not the full explanation (though it is certainly closer to the mark than option 1).

Option 3: Pre-and post-Flood places share certain popular, generic names

The third and best option, in our view, is to acknowledge that in the ancient world, many places were named with such generic descriptors that they could appropriately describe more than one place. The biblical record establishes that there was more than one Enoch and more than one Havilah, and the name data we have in Scripture for that time period is sparse! If *people's* names could be reused on such a scale, then surely it is not a stretch to imagine that generic names could also be reapplied to places. So post-Flood Havilah (the place) was named after post-Flood Havilah (a person), who happens to share the name with pre-Flood Havilah (the place, but possibly also an unnamed pre-Flood person).

Thus, we conclude there are no textual, geographic, linguistic, or even probabilistic reasons to hold to a near-Mesopotamian Eden. The few words used in parallel before and after the Flood are easily explained and the specific geography given in Scripture does not match anything in the region, nor indeed anywhere on the earth today. In part 2 of this paper we will discuss additional physical and textual considerations that argue even more strongly against a Mesopotamian Eden.

References

1. *Antiquities* 1.1.3, Josephus suggests that the Pishon is the Ganges, and that the Gihon is the Nile.
2. *City of God* VIII.18: "Our first parents were certainly on earth, in a well-wooded and fruitful spot, which has been named Paradise." Also, *City of God* VIII.21: "... some allegorize all that concerns Paradise itself, where the first men, the parents of the human race, are, according to the truth of holy Scripture, recorded to have been ... as if they had no existence in the external world, but were only so spoken of or related for the sake of spiritual meanings. As if there could not be a real terrestrial Paradise! ... yet we believe the strict truth of the history, confirmed by its circumstantial narrative of facts."
3. In *Summa Theologica* Question 102.1, Augustine is quoted as saying (in *Literal Meaning of Genesis* 5.8.7): "It is probable that man has no idea where paradise was, and that the rivers, whose sources are said to be known, flowed for some distance underground, and then sprang up elsewhere. For who is not aware that such is the case with some other streams?"
4. Luther, M., *Genesis*, tr. Mueller, J.T., pp. 48–49, 1958, cited in Sarfati, J., *The Genesis Account*, CBP, p. 317, 2015.
5. Calvin, J., *Commentaries on the First Book of Moses Called Genesis*, King, J., trans., Logos Bible Software, pp. 119–120, 2010. He did, however, refute Josephus' suggestion that the Pishon and Gihon were the Ganges and the Nile, as well as attempts to locate one of the rivers as the Danube.
6. See for instance, Sarfati, J., *The Genesis Account*, Creation Book Publishers, Powder Springs, GA, p. 318, 2015.
7. See also Morris, H., *The Genesis Record*, Baker Books, Grand Rapids, MI, p. 90, 1976.
8. Hughes, J.R., An examination of 'Eden's geography erodes flood geology', *CRSQ* 34(3):154–161, 1997.
9. Munday, J.C., Eden's geography erodes flood geology, *WTJ* 58:123–54, 1996.
10. Currid, J.D., *Genesis*, vol. 1, Evangelical Press Study Commentary, Evangelical Press, Darlington, New York, p. 100, 2003.
11. Currid, ref. 10, p. 102.
12. Cosner, L. and Carter, R., Where was Eden? Part 2: geological considerations—examining pre-Flood geographical details in the biblical record, *J. Creation* 30(3):123–127, 2016.
13. Hirsch, E.G. and Seligsohn, M., Gihon, in *The Jewish Encyclopedia*, Funk and Wagnalls, New York, 1906; jewishencyclopedia.com.
14. The old 'Where did Cain get his wife?' question is easily answered. See Carter, R., How old was Cain when he killed Abel? *J. Creation* 36(2):16–17, 2014; creation.com/cain-chronology.
15. Wenham, G.J., *Genesis 1–15*, Word Biblical Commentary, Word Books, Waco, TX, p. 61, 1987.
16. Walker, T.B., The pitch for Noah's Ark, *J. Creation* 7(1):20, 1984; creation.com/the-pitch-for-noahs-ark.
17. Beitzel, B.J., *The New Moody Atlas of the Bible*, Moody Publishers, Chicago, IL, p. 89, 2008.
18. Pliny, *Natural History*, VI, XXVI, 128–131.
19. Hill, C.A., The Garden of Eden: A modern landscape, *Perspectives on Science and Christian Faith* 52:31–46, 2000.
20. Ryle, H.E., *The Book of Genesis in the Revised Version with Introduction and Notes*, Cambridge University Press, Cambridge, UK, p. 32, 1921.
21. Longman III, T., *Genesis: The story of God—Bible commentary*, Zondervan, Grand Rapids, MI, p. 49, 2016.
22. Kidner, D., *Genesis, Tyndale Old Testament Commentaries*, IVP Academic, Downers Grove, IL, p. 67, 2008.
23. See for instance DeRemer, F., Structure, *toledoths*, and sources of Genesis, *J. Creation* 28(1):53–58, 2014.
24. Not to say that Hebraic law was *derived* from Mesopotamian sources, but the multiple parallels with the law systems of these cultures (e.g. the code of Hammurabi) indicated that it did not originate in a vacuum.
25. The 'four-room house' is associated with the post-Conquest Judean Hill Country, but has also been found in the delta region of Egypt (where the Hebrews dwelt) as well as in Syria (from whence they hailed). There is much scholarly debate on the matter, however. For more information, see *Patterns of Evidence*, Thinking Man Films, 2014; creation.com/patterns-of-evidence.
26. Freeth, T., Bitsakis, Y., Moussas, X. *et al.*, Decoding the ancient Greek astronomical calculator known as the Antikythera Mechanism, *Nature* 444(7119): 587–591, 2006.
27. This was accomplished by Eratosthenes (276–194 BC). He was 66 km (0.16%) off the mark.

Lita Cosner earned a B.A. in Biblical Studies (Oklahoma Wesleyan University) and an M.A. in New Testament (Trinity Evangelical Divinity School). Her Master's Thesis is *Jesus the Honorable Broker: A Social-Scientific Exegesis of Matthew 15:21–28*. She is CMI's full-time Information Officer in the United States office.

Robert Carter received his Bachelor of Science in Applied Biology from the Georgia Institute of Technology in 1992 and his Ph.D. in Coral Reef Ecology from the University of Miami in 2003. He has studied the genetics of fluorescent proteins in corals and sea anemones and holds one patent on a particular fluorescent protein gene. His current research involves looking for genetic patterns in the human genome and the development of a biblical model of human genetic history. He works as a speaker and scientist at CMI-US.