Two date range options for Noah's Flood

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Conservative authors have long argued that Genesis chapters 5 and 11 chronogenealogies contain gaps, and that these and other unanswered chronology questions require ages that conflict with at least some of the Bible's stated figures. This inadvertently diminishes confidence in Scripture's veracity. Hebrew scholars have recently resolved longstanding biblical chronology issues like the question of Genesis genealogy gaps and confusing data in 1 and 2 Kings. They can now include every time-related Bible verse into a complete and error-free chronology from Abraham to Paul. This paper merges these chronologists' results with the Masoretic text of early Genesis to confirm earlier calculations for the Flood at c. 2518 BC, and with the Septuagint text of early Genesis to offer an alternative, earlier estimate of c. 3168 BC.

Creation science books, articles, and presentations advocate recent creation. For example, assertions of powerful scientific evidence from astronomy, geology, genetics, and paleontology that the world is thousands, not millions, of years old are common. Why does this issue deserve emphasis? The perspicuity of God's Word, and by extension its everlastingly relevant truth claims dovetail with the precision level of its numbers. A more accurate understanding of the Bible's chronology can empower its defenders with more confidence in its inerrancy.

Some argue that since biblical authors nowhere claim an attempt to construct a timeline of world history (or at least a history from the First to the Last Adam), its readers should not expect one. However, the Scriptures do supply hundreds of chronological clues. Why do they exist if not to mark time? Further, if God were to mark time, He would do it without errors—though not without challenges that only study can overcome. The possibility that Scripture does supply a long chronology accurate to the year (the time unit it most often supplies) should be examined. In that light, exactly what age do the Bible's chronological data permit, suggest, or specify for the world?

Irish Anglican Archbishop James Ussher's fame endures even today from publishing his *Annals of the World* in 1650 AD. His date for the Flood of 2348 BC was printed in Bible margins for decades but has since fallen from favour.[1] The 1961 book *The Genesis Flood* gives an often referenced answer among creation researchers to the question of the biblical age of the world. Its Appendix 11 teaches, as have several generations that have followed its example, that possible gaps in Genesis genealogies permit the addition of perhaps thousands of years into what otherwise would appear to be a straightforward chronology.[2] Conservative biblical historian Eugene Merrill argues the same in his book *Kingdom of Priests*, as noted below. Adding time to accommodate presumed gaps in the Genesis 11 chronogenealogy would increase Ussher's 2348 to some unknowable but more distant year. These gap advocates (not to be confused with gap theory advocates) thus argue that the most biblically accurate chronological statements permit an earth of 6 to 10 thousand years old. This would represent a 40% error margin for scriptural data based on the Masoretic Text, and a ~25% stretch of even the longer Septuagint textual records of Genesis 5 and 11.

One recent creation paper that reviewed the gap versus no-gap perspectives of biblical chronology ended without resolution.[3] However, active chronologists have within the last half century satisfactorily resolved enough quandaries like the gap question for creation advocates to teach and defend a tighter biblical history, including two date ranges for Noah's Flood year, and thus elevate appreciation for biblical precision.

This paper outlines three steps to assigning biblically and historically accurate BC date estimates for biblical events such as Noah's Flood. Each step is treated below in more detail according to this outline: First, scholars show how the Bible best answers the question of gaps in Genesis 5 and 11 chronogenealogies, as per below. Second, following with a high view of Scripture, one can straightforwardly add years from Creation to Abram, with reasonable wiggle room and allowing the possibility of Septuagint as well as Masoretic textual traditions as described below. Third, conservative Lutheran biblical chronologists and Hebrew scholars especially including Andrew Steinmann and Rodger Young have: 1) successfully applied the inductive method that Edwin Thiele began in his attempts to harmonize dozens of apparently confusing time indicators recorded in Kings and Chronicles covering the divided kingdom period; 2) constructed a consistent year-by-year timeline from Abraham to Christ that treats every chronology-related Bible verse literally; 3) cross-checked that timeline against independently recorded Sabbatical and Jubilee years; and 4) confirmed extrabiblical events that occurred during the divided kingdom period and that anchor BC dates to the Bible's timeline. In summary, adding gap-resolved Genesis chronologies extends Steinmann *et al.*'s timeline backward from Abraham to the Flood, as described below.

Step 1: fill the gaps

Genesis 5 and 11 would need alterations in order to accommodate gaps. How might such alterations to the following sampled section look?

> "Methuselah lived one hundred and eighty-seven years, and begot Lamech. After he begot Lamech, Methuselah lived seven hundred and eighty-two years, and had sons and daughters. So all the days of Methuselah were nine hundred and sixty-nine years; and he died."[4]

If one allows name gaps, then Methuselah may have begotten an unnamed son, who begot another unnamed son (or perhaps more), making Lamech Methuselah's great grandson instead of his direct son. However, either the timespan between Methuselah and Lamech according to the phrase, "Methuselah lived one hundred and eighty seven years, and begot Lamech", must have been 187 years or the text loses some or most of its meaning. Therefore, adding years to this number could begin to strip this verse of its function and content, all without contextual justification. Hardy and Carter expressed this same objection when they wrote: "When a biblical author says a person was X years old when something happened, if we do not take that as a historical statement we quickly get to the point where words have no meaning."[5]

Merrill wrote: "Clearly, Shem preceded Abram by many more years than a strict reading will permit, and thus there was sufficient time for the knowledge of Yahweh to have disappeared from the line of Shem and for a need to have arisen for Yahweh to reveal Himself to pagan Abram."[3] Just what makes this assertion so clear? And what does "a strict reading" mean? If a doctor warns her patient of a dangerously high systolic blood pressure of 169mmHg, and the patient determines to understand this less strictly, then he puts his life at risk by lying to himself. One who fails to grasp the 'strict' meaning of statements spoken in a language fails to grasp the author's intended meaning. Merrill's phrase about having sufficient time for people to reject God falls short, sustained since that can occur in only one generation—a tiny fraction of the thousands of years he wants to add—and seems to be a red herring in any case. God recorded specific numbers for these patriarch's lifetimes, so he who doubts these numbers should present clear and powerful justifications, not unnamed allegations. Merrill's motive becomes clear in later passages of his book. He must add years to the Bible in order to accommodate the secular archaeologist's age assignments that he accepts.

Similarly, Whitcomb wrote:

> "Near Eastern cultures apparently have a rather continuous archaeological record (based upon occupation levels and pottery chronology) back to at least the fifth millennium BC, and it seems impossible to fit a catastrophe of the proportions depicted in Genesis 6–9 into such an archaeological framework."[6]

But that 'archaeological record' was compiled by secularists, who by definition have a low view of Scripture. And as creation scientists have long demonstrated in other historical disciplines like geology and paleontology, secularists often force-fit observations—in this case occupation levels and pottery ages—into their preconceived long-age timeline. In addition, assertions of fifth millennium BC rely on radiocarbon 'ages', which are systematically inflated with older samples and untrustworthy in that context.[7] These quotes reveal an eisegetical trend of adjusting factual statements from Scripture to accommodate a man-made, evolutionarily interpreted archaeological timeline.

Henry Morris seemed less sure of the need to accommodate secular archaeology's non-biblical age scheme, but begrudgingly regarded gaps when he wrote in 1976: "Assuming no gaps in these genealogies (a possibility which perhaps cannot be ruled out completely, but for which there is certainly no internal evidence), there was a total of 1656 years from the Creation to the Flood."[8]

Since then, scholars have dealt with these gaps. Sarfati enumerated helpful reasons to reject the idea of names missing from the patriarchal chronogenealogies—name gaps that old-earth apologist Hugh Ross also teaches. For example, adding unnamed generations casts doubt on the perspicuity of Jude 1:4: "Now Enoch, the seventh from Adam…" Sarfati then wrote:

> "… it's a red herring. Suppose we grant the opposition's case that there were many missing names between person A and the next in line B, such as Enosh to Kenan. It wouldn't change the fact that there are still x years between them, e.g. 90 years between Enosh and Kenan. That is, even if there were gaps between the *names*, there are no gaps in the *time*."[9]

Johnson and Ice had already argued the same. They first considered the chronogenealogies' 19 repeated stanzas, which Johnson called 'sub-timeframes', as follows:

> "In other words, deductively speaking, there are no inferrable 'gaps' (i.e. of 'unknown' time-length) in the time between these Scripturally defined 19 sequenced sub-timeframes. Each of these 19 sub-timeframes is a 'link' within the entire link-'chain' of sub-timeframes, in turn, so that the complete sequencing of all 19 sub-timeframes exactly equals the entire timeframe from Adam's creation unto Abraham's birth."[10]

However see below on the possibility of those numbers spanning the timeframe of Adam's creation to Haran. Does the inclusion of gaps carry the consequence of altering the Words of God? If so, secular archaeologist's assertions about the past fail to justify this kind of alteration. Without gaps, we can more straightforwardly calculate biblical age ranges for key events like the Flood.

Step 2: add the Bible's years

Creation to Abram's birth adds up to about 1948 years using the Masoretic text, albeit with tension over Terah's place needing some resolution. Genesis 11:26 says he was 70 years old when he "begot Abram, Nahor, and Haran". Possibly the text does not specify which of the three sons was the firstborn, that the 70 years counts to the firstborn, and thus we don't know exactly when to add Abram to the early Genesis timeline. Sarfati, along with Ussher, subtracts Abram's age at departure from Haran of 75 from Terah's 205-year lifespan, since Abram left Haran soon after Terah died in Haran.[9] So, 205 – 75 = 130 years old at Abram's birth. Does this contradict Genesis 11:26, "Now Terah lived seventy years, and begot Abram, Nahor, and Haran"? Since Haran died first according to Genesis 11:28, he may have been Terah's firstborn, not Abram. Thus, Creation to Abram's birth was 1948 + 60, or 2008 years. To suggest that the continuous timeline from Abram to Christ as outlined below cannot precisely merge with the continuous timeline from Creation to Terah would constitute a broken link so far out of place that it would require a greater defence than the present author is currently able to mount.

If nine gestation months or some months to account for birthdays should be estimated for each generation, then the Creation-to-Abram time range could have spanned 2008 years at minimum or 2044 years at maximum.[11] These two figures are derived following Johnson and Ice's summary, but counting 130 years instead of 70 as Terah's age at Abram's birth, as discussed above. Hardy and Carter also suggested the possibility of certain antediluvian patriarchs counting their own vast ages by every half-decade instead of every year, plus added a few more caveats for more wiggle room, to calculate a minimum of 1990 and a maximum of 2026 years from Creation to Abram.[9] However, Ruth Beechick speculated:

> "In trying to be exact, we might be tempted to add several years to the pre-Flood genealogy, figuring that each son was not born on his father's birthday or on New Year's day. But on second thought, we could decide that those early historians were probably smarter than we are. They would know enough to count the birth year only once in their historical chronology."[12]

The patriarchs would know enough to exclude name gaps and time gaps, and possibly to count the birth year only once as Beechick suggests. But this assumes that their intent was to supply numbers that future generations could use to calculate exact years, and we see only rare accounting of partial years, such as months or days, in their records. However, they lived long enough for up to eight *concurrent* antediluvian generations and according to the Masoretic text's numbers up to 12 concurrent post-diluvian generations that stretched even past Abraham. Conceivably, patriarchal scribes could have asked for first-hand accounting of a person's birth year or birth month, or whatever else they wanted to ask. So it may be possible that these Scriptures supply exact year lengths, with little or no wiggle room (i.e. no date slippage). Such a chronology may or may not have been important to the prophets and apostles who were carried along by the Holy Spirit as they recorded Scripture, but since the Bible does have numbers, since God is a God of order, and since His Word has no errors, it might inadvertently include a precise world chronology. In other words, it does not claim a perfect chronology, or need one, but it does need to have no errors. And if an error-free chronology emerges from Scripture, then so be it.

Could the relatively simple additive date from Creation-to-Abram of AM 2008 express the exact number of years, whether solar or sidereal, that transpired in that span? If so, the number divides thus from the Masoretic text: Genesis 5 gives the Creation-to-the-Flood span of 1,656 years, and Genesis 11 gives a Flood-to-Terah's firstborn timespan of 292 years. In order to confirm BC date estimates for the Flood, the lay chronologist next needs the timespan from Abram's birth to at least one firmly dated historical event that intersects biblical chronology.

Step 3: use Steinman and Young's chronology

Resolve the kings

One can anchor a BC date for the death of King Nebuchadnezzar—who destroyed Jerusalem in 587 BC—onto a biblical chronology spanning Adam to Solomon. British Museum tablet 21,946, the Babylonian Chronicle, notes the fall of Jerusalem "on the second day of the month of Addaru". Finegan's Handbook defends this as "the most exact information to come from cuneiform records for an event recorded in the Bible".[13] But to span from Solomon to Nebuchadnezzar, one must first solve biblical chronology challenges for the divided kingdom era.

Edwin Theile [Tee luh] (1895–1986) published his attempted solutions in *The Mysterious Numbers of the Hebrew Kings*.[14] Whitcomb referenced Thiele's work,[15] as did Hardy and Carter.[5] Though imperfect, Thiele at least looked for solutions amidst an intellectual climate that insisted that the chronology of the Kings was a hopeless tangle. Theile used an objective 'decision table' technique that answered three questions about each king's reign: 1) Did his reign begin in the month of Tishri (September/October) or the start of the ancient new year in Nisan (March/April)? 2) Did his reign overlap another's (a coregency)? 3) Did the king's scribe use accession reckoning or non-accession reckoning? Assyria, Babylonia, and Judah tended to count a king's first months prior to Nisan as a whole year—his 'year

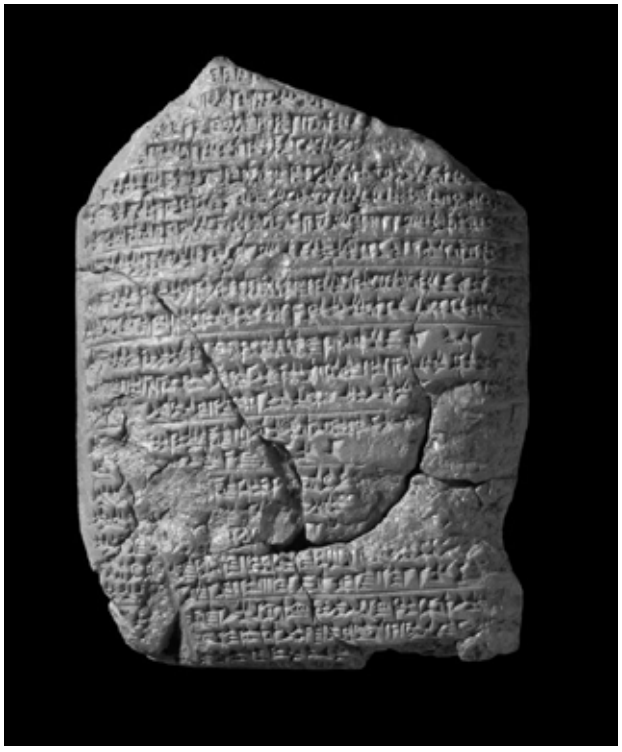

Figure 1. The Babylonian Chronicle (tablet BM21,946) helps anchor biblical chronology to a BC timeline (British Museum).

of accession'. Israel and other nations did not count a new king's first months before the new year. So the chronologist can subtract one year, the accession year, from each of certain kings of Israel (but typically not the kings of Judah) when tallying certain reign lengths.

Hardy and Carter outlined a history of chronologists who have debated the divided kingdom period in order to outline the range of possibilities.[5] But Young and Steinmann picked up where Theile, and Leslie McFall's updates to Theile, left off.[16] Their chronology for the divided kingdom era (and beyond) includes every time-related Bible verse interpreted straightforwardly, i.e. according to the standard historical-grammatical method. Young made necessary adjustments to Theile's results, thereby resolving what appear to be the last remaining questions toward an inerrantist biblical chronology for the divided kingdom.[17] These results narrow the range of possibilities down, apparently to just one. Again, Scripture does not necessarily need only one chronology. However, if each small problem has only one resolution that maintains all biblical numbers without alteration, then all those resolutions would combine into a chronology without peer among extrabiblical ancient records. Young's website provides links to relevant chronology papers, as well as summary tables that begin to reveal remarkable precision in biblical chronology.[18] Accordingly, the time from the death of Solomon/beginning of the divided kingdom in 932 BC and the fall of Jerusalem and defeat of its Judean king Zedekiah under Nebuchadnezzar in the summer of 587 BC ("the only date that can be reconciled with all the texts involved") equals 345 years.[19] These results bring a biblically consistent chronology into focus and subtract some wiggle room found in other's chronologies. The next section outlines how well-established BC events that occurred within the 345 years of the divided kingdom exactly synchronize with certain Bible events and thus anchor world history to the Bible.

Synchronize with BC dates

Chapter three in *From Abraham to Paul* summarizes synchronisms that anchor BC dates onto Scripture's chronology.[20] Key details from this chapter come from Kenneth Kitchen's article, *How We Know When Solomon Ruled*, available online.[21] First, an Assyrian record called the Monolith Inscription names Israeli King Ahab's defeat during King Shalmenesser III's sixth year of reign, in 853 BC. The Black Obelisk or Kalhu Obelisk names Israeli King Jehu's tribute payment in Shalemeneser's 18th year, in 841 BC. Using chronological data from 1 Kings that span from Jehu and/or Ahab to Solomon, Steinmann calculates the year of Solomon's death to 931 BC.

Other connections confirm this date. First, Pharoah Shoshenk (biblical Shishak) invaded Judah in Rehoboam's fifth year, 926 BC. Rehoboam was the first king after Solomon. Second, Pharoah Siamun's reign length of 986–968 overlapped Solomon's reign in just the right timeframe for Siamun to have been the pharaoh who conquered Gezer and whose daughter Solomon married. Third, Josephus recorded the Tyrian king list. It indicates 143 years from the construction of the temple to Pygmalion's seventh year, enabling yet another calculation that confirms Solomon's reign dates. Other synchronisms confirm Bible events, including Menahem's tribute to Tiglath Pileser III in 743 or 742 BC as noted on the Iran Stela, and Nebuchadnezzar's defeat of Egypt mentioned in 2 Kings 23: 29–30 (and elsewhere) as recorded on a Babylonian Chronicle at 605 BC.[22] Gritty details that comprise some tomes undergird the above sketch, according to which Solomon's last year, and thus the first year of the divided kingdom, was 931 BC. Next, Steinmann established a date for the Exodus.

He first takes 1 Kings 6:1 straightforwardly:

> "And it came to pass in the four hundred and eightieth year after the children of Israel had come out of the land of Egypt, in the fourth year of Solomon's reign over Israel, in the month of Ziv, which is the second month, that he began to build the house of the Lord."

This precludes a late date for Exodus and in conjunction with other verses specifies 1446 BC for the Exodus out of Egypt. The Mereneptah stele, Pharoah Mereneptah's victory monument erected in 1211 or 1210

BC and discovered in 1896 in Thebes, contains the earliest mention of Israel as a nation and not as wandering tribes. Thus, Israel must have been firmly established long before 1211, placing the Exodus no later than about 1270 BC, contra the late date theory.[23] Steinmann summarized how archaeological evidence from the destruction of Jericho and Ai do not support the late date theory either. If conservative archaeologist Bryant Wood's analysis of Canaanite pottery the ruins at Khirbet el-Maqatir correctly identify as Ai, then it was destroyed circa 1400 BC—40 years of desert wandering after the 1446 BC Exodus.[24] The only other city that Joshua burned and destroyed instead of just taking over was Hazor, and excavations of its relevant destruction layer also show a match with a 1446 BC Exodus.

Cross-check with an independent Rabbinic reckoning

Wouldn't it be nice for a separate system of counting to confirm this chronology? Steinmann summarized Young's description of how Jewish Jubilee years do this. The Mosaic Law provided Sabbatical years—every seventh—to rest the land. Every seventh Sabbatical year coincided with a Year of Jubilee according to Leviticus 25:8. The 50th year of Jubilee also counts as the first year of the next cycle, bringing 49 years total for each Jubilee cycle. Although many Hebrews did not faithfully observe the Sabbatical or Jubilee years, scribal records preserve them. In about ad 160, Rabbi Yose ben Halafta included key Jubilee counts in the *Seder 'Olam Rabbah*.[25] The Talmud carries this information forward for modern readers. These documents teach that the Jubilee from Ezekiel 40:1 was the seventeenth Jubilee. Ezekiel 40:1 says: "In the twenty-fifth year of our captivity, at the beginning of the year, on the tenth day of the month, in the fourteenth year after the city was captured, on the very same day the hand of the Lord was upon me; and He took me there." It names a year that began on the tenth day of the month, which could only be a Jubilee year. The first Jubilee began, according to Leviticus 45:2, on the 49th year after Joshua and Israel entered the promised land. Steinmann,[26] following Young,[27] counts backward from 574 BC (actually 574 beginning in the month Tishri, not January), a year that occurred in the 25th year of the captivity according to Ezekiel 40:1 and 14 years after the final fall of Jerusalem in 587 BC. Adding 17 Jubilee cycles of 49 to 574, plus 48 years between entering the land and the first Jubilee, plus 40 years of wilderness = 1446 BC.

A Masoretic text-based BC date for the Flood

Additional considerations will be required to update minimum-maximum age ranges. For example, can the apparent contradiction between the 400 years of Genesis 15:13 and the 430 years given in Exodus 12:40–41 be resolved? Careful Bible reading presents a satisfying solution. The former (400) gives the number of years that "they will afflict them", and the latter (430) gives the total number of years of "the sojourn". In other words, the Israelites were not afflicted for their first 30 years of their sojourn in Egypt. One can easily imagine an abrupt change in pharaonic dynasties affecting prevailing attitudes toward the Hebrews during Joseph's later years. These two numbers therefore don't conflict, but instead allow cross-checks, as do other Bible numbers.

Bible numbers (for example those found in Genesis 21:5; Genesis 25:26; Genesis 47:28; Exodus 7:7; Deuteronomy 34:7; 1 Kings 6:1; Joshua 4:19; Acts 13:21; and 2 Samuel 5:4) accumulate 1,234 years between the birth of Abram and the death of Solomon. Adding 1,234 to the death of Solomon in 932 BC sets Abram's birth to 2166 BC according to Steinmann's timeline.[28] With the Flood-to-Abram Genesis 11 chronogenealogy having no name gaps and more importantly no time gaps, the timespan between the Flood and Abram's birth should equal very nearly 352 years. This follows by adding 292 years from Genesis 11 to 60 presumed years between Terah's firstborn and Abram, as discussed above. 352 years before 2166 BC marks 2518 BC for Noah's Flood. Adding a generous 14 years for unknown gestation and paternal age months from Arphaxad to Abram gives 2532 BC for the Flood, using the Masoretic text.

How do these compare to some other calculations? First, these fall inside Hardy and Carter's range of 2600 BC to 2300 BC.[5] About a century ago, Basil Stewart calculated a Flood date of 2344 BC.[29] He did not have the solution to the kings reigns that recent chronologists have deduced and which Steinmann summarized in 2011. Also his siege of Jerusalem by Nebuchadnezzar in 585 BC should update to 587 BC as argued above, to anchor BC age estimates to biblical chronology. As another comparison to an even earlier chronologist who also had a high regard for Scripture's precision, Peter Akers supplied 3284 BC for the Flood.[30] He "constituted a fixed point on Egyptian chronology"[31] to find his much older date. Since then, enough problems have arisen with especially the older Egyptian chronologies to demonstrate their insufficiency as chronological anchors for biblical numbers.[32] Indeed some admit Egyptian chronology is a tattered collection not at all deserving the solid historical clout it enjoyed when Akers was writing.[33] Thus, 2518–2532 BC should represent a tight and yet responsible date range for the Flood using the Masoretic text. Finally, Archbishop Ussher derived a Flood date without the results of key archaeological finds, including Assyrian king records and Hazor's excavation, and without decision table resolutions for the divided kingdom chronologies that permit precise synchronizations with surely dated extrabiblical events, although he had access to historical

Table 1. Age at begetting of post-Flood patriarchs, plus Noah, from three textual traditions

Name (table1)	LXX	MT	SP
Noah	500	500	500
Shem	100	100	100
Arphaxad	135	35	135
[Cainan]	[130]	–	–
Shelah	130	30	130
Eber	134	34	134
Peleg	130	30	130
Reu	132	32	132
Serug	130	30	130
Nahor	79	29	79
Terah	70	70	70
Flood to Terah's first born Sum:	**1070**	**292**	**940**

sources now gone. Ussher also used a 215-year sojourn in Egypt, which Steinmann demonstrated unnecessarily constrains Scripture, and was influenced by a belief in 6,000 years of total world history.[34] Even with these differences, Ussher's age of 2348 BC for the Flood deserves appreciation.

A Septuagint-based BC date for the Flood

The Masoretic Text (MT) originated in the second century AD. It contains a few corruptions that other texts can resolve so that the original inspired Word can be reconstructed. More often than not, however, the MT corrects other textual traditions. Jewish scholars translated ancient Hebrew scrolls into Koine Greek to form the Septuagint during the third century BC. New Testament authors quoted the Septuagint (LXX). The MT Genesis 5 chronology from Adam to the Flood shows 24 more years in total lifespans, all of them for Lamech. The MT post-Flood chronology records 780 fewer years than the LXX—except that pre-Christ copies do not have Cainan or his 130 years in Genesis 11. Table 1 shows variants between the MT, LXX, and the Samaritan Pentateuch (SP), a third textual tradition that does bear some Samaritan-*friendly* corruptions in places.[35]

Most creation scientists use and defend the MT for biblical chronology "because the other texts show evidence of editing."[36] However, Sexton and Smith (2016) recently used at least 11 arguments in favour of the superiority of the LXX for the Genesis 5 and particularly the Genesis 11 chronologies.[37]

1. A vast majority of pre-Reformation Christians endorsed the Septuagint chronology.
2. No known pre-second century history uses the MT timeline.
3. MT-defenders' long-held speculation that LXX translators inflated patriarchal ages to conform it to Egyptian chronologies has no evidential basis. The LXX actually shows no such trend elsewhere in its text, and the copyists of that time (third century BC) were held accountable to precision record-keeping.
4. The odds that separate scribes independently inflated Genesis 11 numbers in the LXX and the Samaritan Pentateuch to exactly the same ages are unbelievable. That they were translated from a reliable original Hebrew source long ago better explains their identical numbers, shown in table 1.
5. Jewish historians from about 200 BC to 100 AD, including most of Josephus' numbers, referenced the LXX chronology.
6. Five ancient texts fit a trend of Jewish scribal chronological deflations, not inflations.
7. The earliest witness to the MT chronology occurs in the *Seder Olam Rabbah*, which severely reduced post-exilic chronology in order to disqualify Jesus as the Messiah that Daniel 9:6 foretold.
8. The earliest witness to the MT chronology thus post-dates the earliest witness to the longer LXX chronology by four centuries.
9. The MT Genesis 5 numbers fit the hypothesis that systematic chronological reduction ensured that no antediluvian patriarchs lived beyond the Flood, and yet the numbers for Noah, Shem, and Terah remained unaltered since they meshed with other chronological statements.
10. If Eber was still alive and twice Abraham's 175-year age at death, as per the MT, then why does Genesis 25:8 say that Abraham "died in a good old age, an old man and full of years"? Rather, the LXX numbers show Eber passed away four centuries before Abraham's death.
11. The Pharisees generally believed that the Messiah would arrive during the sixth millennium after creation. They marshalled the few remaining Scriptures available to them after Bar Kochba revolt in 132–136 AD to finalize the MT. This moment in history could have enabled their alteration of Genesis 11 and 5 to shrink the world's chronology enough to discredit Jesus as the sixth millennium Messiah, without accountability.

The longer chronology has a few more advantages. Geologist Steve Austin has counted Dead Sea sediment laminae and correlated specific seismites with biblical earthquakes at Jerusalem.[38,39] If the laminae below these also represent annual deposits, then they extend beyond the MT-supplied number of post-Flood years. Also, the LXX's additional Noah-to-Abraham years offer more time to accommodate archaeologically attested Mesopotamian

periods from before the Tower of Babel. Biblical archaeologist Doug Petrovich noted: "They can't just go away. They can be shortened, but they have to be counted into the equation."[40] Thus, the "rather continuous archaeological record" to which Morris and Whitcomb referred deserves a place in time, but not the authority to nullify the historically superior biblical record from either the MT or LXX.

Finally, geneticist John Sanford demonstrated that the MT-based post-Flood declining lifespan pattern over many generations fits the hypothesis that increased mutational load caused systematically diminishing lifespans.[41] Figure 2 replicates his patriarchal lifespan chart and includes the LXX numbers. The best fit power curve for the LXX data followed the formula $y = 946.21 \times 10^{-0.702}$. The best fit power curve for the MT data followed the formula $y = 726.71 \times 10^{-0.617}$. Both sets reveal similarly systematic declines and show no clear mutational basis for adjudicating between the two texts.

Ongoing research may more firmly establish or unfasten the LXX Genesis 5 and/or 11 chronologies. Until then, two Flood ages present themselves. The LXX Genesis 11 lists 780 more years than the MT. However, as Sarfati showed, later copies of it show an extra 'Cainan', and thus an extra 130 years.[36] Subtracting those 130 from 780 gives 650 years to add to the MT-based Flood age estimate of 2518 BC to produce a LXX-based Flood date of circa 3168 BC.

Conclusions

An outline of three steps to assigning biblically and historically responsible BC age estimates for Noah's Flood has been presented, and it suggests several conclusions. First, the idea that Genesis 5 and 11 genealogies have gaps is increasingly difficult to support and irrelevant in light of the internal textual evidence for complete, gapless chronogenealogies. Second, one can construct a tight year-to-year chronology using just the Bible, though it has taken several generations of chronologists to settle key questions like the web of numbers in the Kings. Third, recent scholarship has reawakened interest in the Septuagint's early Genesis chronology, which adds about 650 years to the Masoretic text's span between Noah and Abraham. Thus, instead of a continuum of age possibilities from ~2500 BC to ~3170 BC and maybe beyond, historical evidence suggests that the Flood occurred at either one or the other tight time frame. Fourth, the fifth millennium BC Flood age estimate that Morris and Whitcomb allowed in *The Genesis Flood* lies beyond the age estimates given here and beyond those of Hardy and Carter, Johnson and Ice, and Sarfati, as cited

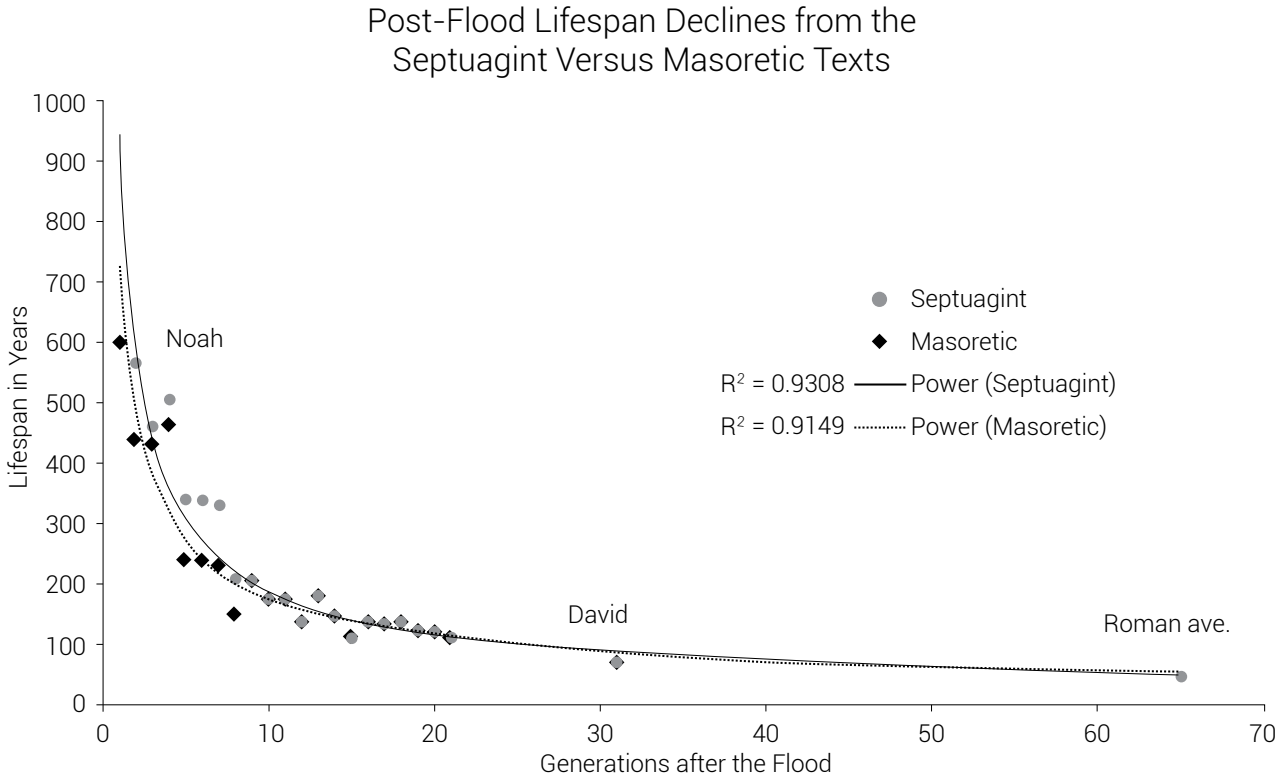

Figure 2. Age at begetting of post-Flood patriarchs, plus Noah, from two textual traditions

above. Finally, two BC date estimates for the Flood, include a Masoretic placement between 2518 and 2532 BC, and a Septuagint placement circa 3168 BC.

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