

Biblical Chronology: Patterns & Coherence

In the present note, I consider the general picture painted by the Bible's chronological data-points, and then zoom in on a few key dates and details. In all, I make three distinct claims. First, that the 'year-stamps' inherent in the text of Scripture form a plausible pattern. Second, that the text of Scripture contains traces/memories of a consistently-reckoned Jubilee cycle. And, third, that the vast majority of the 'day-stamps' recorded in Scripture are closely connected with the priesthood.

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Conventions: All chronologically-related ordinals are written numerically (i.e., 1st, 2nd, 3rd, etc.). The months of the Hebrew calendar are as follows: 1st = Nisan, 2nd = Iyyar, 3rd = Sivan, 4th = Tammuz, 5th = Av, 6th = Elul, 7th = Tishri, 8th = Marcheshvan, 9th = Kislev, 10th = Tevet, 11th = Shevet, 12th = Adar. Nisan (roughly) marks the start of spring, while Tishri (roughly) marks the start of autumn. In references to years, the superscript 'n' denotes a Nisan-year, while the superscript 't' denotes a Tishri-year. For instance, 500ⁿ/499ⁿ BC denotes the period from the first day of Nisan in 500 BC to the last day of Adar in 499 BC, while 500^t/499^t BC denotes the first day of Tishri 500 BC through to the last day of Elul 499 BC.

Note: In the Hebrew calendar, the numbers attached to months do not depend on whether they appear within the context of a Nisan or Tishri year. In other words, even in the context of a Tishri-year, Nisan is referred to as 'the 1st month' and Adar as 'the 12th month'. Hence, the 1st month of 500^t/499^t BC = the 1st month of 499ⁿ/498ⁿ BC.

First up, then, the Bible's year-stamps, i.e., references to 'the Nth year of X' (where X denotes an era of some kind). We'll start with the antediluvians, and work our way upwards from there.

Antediluvian dates

The Bible's first year-stamp is found in Genesis 8, where the flood is said to occur in the 600th year of Noah's life (cp. Gen. 7.11 w. 8.4, etc.). The lifetime of Noah is hence treated as a kind of 'era', which seems a natural course of action.¹ Noah is after all the head of the only family to live through the flood. His lifetime therefore forms a natural context in which the flood can be dated.²

Dates in early Israel

The Bible's next year-stamp is found in Exodus 12. By the time they leave Egypt, the Israelites are said to have sojourned there for 430 years, which is a stay they may well have wanted to keep track of (especially when they'd been promised at least 400 years of persecution in a foreign land: Gen. 15.13–14).³

At the same time, the Israelites are granted a (new) calendar, which runs from Nisan to Nisan, i.e., from springtime to springtime. Previously, it would have been natural for the Israelites to view the year in terms of an agricultural cycle (from Tishri to Tishri). Crops were planted in late autumn, and the harvest came to its climax in late summer (as is reflected in the 10th cent. Gezer Calendar), hence

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1. Gen. 5.32 could (just about) be viewed as even earlier occasion when Noah's life is treated as an era. ('When Noah was a son of 500 years, he fathered Shem, Ham, and Japheth'.) Granted, 'P was a son of N years' is a standard way to state someone's age in Hebrew. But 5.32 is the first occurrence of the phrase 'a son of N years' in Scripture (which makes it significant), and deviates from the chapter's prior syntax (i.e., 'And X lived for Y years and fathered Z'). Arguably, then, 5.32 views Noah's life in an era-like manner, and dates the birth of Noah's sons to its 500th year.
 2. Gen. 5's 'aged genealogy' doesn't appear to be merely symbolic. Everyone who is mentioned in Gen. 5 dies at an age which is either: a] a multiple of five, or b] two years after an age which is a multiple of five. (Specifically, people die at the ages 930, 912, 905, 910, 895, 962, and 777.) The exception is Methuselah, who dies at the age of 969, which is no coincidence, since his death coincides with the year of the flood. (Methuselah fathers Lamech at the age of 187, who fathers Noah at the age of 182, in whose 600th year the flood arrives. As such, the flood arrives in the 969th year of the life of Methuselah: Gen. 5.25–32.) The text of Gen. 5 therefore has a consistency and coherence.
 3. Let's not worry about Galatians 3 for now. We've got enough on our plate already.

Ugarit's coronation ritual took place in autumn.⁴ But, with the exodus, a new kind of year is born in Israel (cp. Exod. 40.17, where the Tabernacle is erected on 1st Nisan).

As a result, the book of Exodus contains memories/traces of an autumnal year (cp. Exod. 34.22, where the 7th month = 'the turn of the year', w. 23.15–16: Clines 1974:26–30), against the backdrop of which a new year is defined (12.2, 13.4, etc., Deut. 16.1). At the same time, year-counts begin to be grounded in 'the year when Israel left Egypt' (cp. Exod. 40.17, Deut. 1.3), which explains what we find in 1 Kgs. 6.1, where Solomon is said to start work on the Temple in the 480th year since the exodus.

As Rodger Young notes, the Pentateuch regularly employs the phrase 'the Nth month/year + תַּחֲלֵל + a reference to Israel' as a kind of era-stamp, akin to the letters 'AD' in, say, the expression '70 AD' (cp. Exod 16.1, 19.1, Num. 1.1, 9.1, 33.38, 1 Kgs 6.1). The consistent employment of such an era-stamp could explain how the Israelites were able to keep track of the interval between the exodus and the construction of Solomon's Temple.⁵

Note: If the 120 years mentioned in Gen. 6.3 refers to the interval between God's command to Noah and the flood, then an important structure is built in the 480th year of the first two eras mentioned in Scripture, viz. the ark and the Temple. Curiously, both structures are wooden, both are places to which animals are brought (in one case to be saved, in the other to save others), both are three-tiered (and of similar dimensionality), and both embody within them the concept of new creation.

Judges

Next, we come to the book of Judges. The text of Judges mentions a number of rulers' reigns, both inside and outside of Israel. Its chronological indicators are significant for at least two reasons.

First, if they're viewed as strictly consecutive, the intervals of time listed in Judges cannot reasonably be accommodated by the Biblical narrative. The book mentions intervals of 8 years, 40 years, 18 years, 80 years, 20 years, another 40 years, etc., etc., all of which

4. Cp. KTU 1.41:50–55, Young & Steinmann 2012:227.

5. Rodger Young, personal correspondence, May 2020.

sum to a total of 410 years (cp. our table in Appendix D for the full details). Yet, as we've noted, Solomon began to build the Temple in the 480th year of the exodus era (1 Kgs. 6.1), which, once we account for Israel's 40 years in the wilderness (pre Judges) and the 40-year reigns of Saul and David (post Judges), doesn't allow enough time to accommodate a period of 410 years (Chisholm 2009:247–248).

By implication, then, at least *some* of the judges' reigns must have overlapped with one another, which shouldn't surprise us. The book of Judges records the history of a disintegrated nation. No monarchy exists in the Judges' days. Tribes seem to intermarry (cp. 14.3). A number of Israel's tribes appear to have lived quite an isolated existence (cp. 5.17), hence the Ephraimites are able to develop/retain a distinctive pronunciation.⁶ And, as we'll see, Samson's judgeship can be shown to have overlapped with a number of other judgeships, which is consistent with what we know of Samson's character. Indeed, one of Samson's distinctives is his relative isolation and propensity to operate as a lone agent. (Consider, for instance, how the Judahites help the Philistines capture him, and how no-one takes advantage of Gaza's vulnerability after Samson removes its defenses: 15.11, 16.3.)

Second, the book of Judges doesn't include any references to regnal years, nor does it posit any synchronisms (e.g., 'P was born in the Nth year of Q's reign'). Again, that fact shouldn't surprise us. If regnal years are to serve as a calendar, a nation needs to have an established centre of authority and administration, which Israel lacked in the days of the Judges.

Nevertheless, a progression can be observed in Judges' narrative. In chs. 3–8, we are provided with little if any background information about Israel's judges (e.g., the name of their father, their place of birth and burial, etc.), nor is the duration of any of their careers stated. All we're told is how long Israel are oppressed for prior to their intervention, and how long a period of peace they establish, shown below:

6. Note also how the Danites 'recognise' (להכיר) the voice of the Levite in Ephraimite territory (18.2–3), which subtly agrees with ch. 12's testimony to the distinctiveness of the Ephraimites' accent.

Text	Judge	Judgeship	Quiet	Burial place
3.7–11	Othniel	?	40 years	?
3.12–30	Ehud	?	80 years	?
4.1–5.31	Deborah	?	40 years	?
6.1–8.28	Gideon	?	40 years	?
9.1–57	Abimelech	3 years	NA	?
10.1–2	Tola	23 years	NA	Shamir
10.3–5	Jair	22 years	NA	Kamon
10.6–12.7	Jephthah	6 years	NA	Gilead
12.8–10	Ibzan	7 years	NA	Bethlehem
12.11–12	Elon	10 years	NA	Aijalon
12.13–15	Abdon	8 years	NA	Pirathon
13.1–15.20	Samson	20 years	NA	Zorah

As can be seen, however, as time goes on, things begins to change. From ch. 9 onwards, we're told the duration of each judges' career. We're provided with information about judges' descendants and/or place of burial. We have a more complete/continuous record of Israel's judges. (Ehud, for instance, seems unlikely to have ruled Israel for the entire duration of the 80 years of quiet he establishes. Certain judges must, therefore, be omitted from the book's earlier narratives. Indeed, every judge in chs. 3–8 is a hero, while the judges of ch. 9 and beyond include some fairly unremarkable characters.) And we have a more dense/detailed record of Israel's judgeships. We have details, for instance, of contemporary judgeships, as is illustrated into the stylised timeline below, which fans out horizontally as the narrative becomes more dense. (Details to follow.)



As such, the book of Judges appears to be predicated on records which, for one reason or another, become more detailed over time. (Perhaps later records included more details, or perhaps they were just better preserved at the time of Judges' composition.)

At the same time, Israel itself appears to have become a more connected entity/society. We read of a judge from the tribe of Issachar who judges Israel from a central location (Ephraim: 10.1–2). And judges are explicitly said to *succeed* one another. Ibzan is said to judge Israel for 7 years 'after' Jephthah has died. Elon is said to judge Israel for 10 years 'after' Ibzan has died. And Abdon is said to judge Israel for 8 years 'after' Elon has died (Judg. 12). As such, news of a judge's death appears to have been circulated

among the Israelites so another judge could (somehow) be selected to take his place. A similar practice is reflected in Genesis 36's record of Edom's kings at the time (cp. 36.31), which takes the general form,

P son of Q reigned in such-and-such a city.
 And P died.
 And R son of S reigned in his place in some other city.
 And R died.
 And T son of U reigned in his place in some other city.
 Etc., etc.⁷

In sum, then, the text of Judges reflects the history of a disintegrated nation which gradually develops better systems of administration and communication. Not until a monarchy is established, however, do regular and formulaic statements of regnal years begin to appear in the Biblical narrative, which is as one would expect, and to which we will now turn our attention.

7. In Gen. 36, the idea of succession is more explicit than in the book of Judges, since, in Gen. 36, kings are said to reign 'in place' (תחת) of their predecessor. For a discussion of the historical plausibility of Gen. 36's data, cf. Ben-Yosef 2019.

Israel's monarchy

We come, then, to the book of Kings. The regnal figures in the book of Kings have been the subject of much study over the years, and no little puzzlement. Initially, they are relatively straightforward to follow. But the reigns of Judah and Israel's kings soon (appear to) drift out of sync with one another; that is to say, the synchronisms inherent in the text soon become unsynchronisable (Thiele 1983:33–42). The reason is twofold. First, due to co-regencies in the reign of Israel's kings (Steinmann 2011:127–170⁸)—a phenomenon well-attested in other kingdoms.⁹ And, second, due to the disintegration of Israel's administration. In the aftermath of Solomon's reign, Israel splinters into two kingdoms, each with its own centre of worship and administration. The calendar established in Solomon's day (predicated on Tishri-years and grounded in Solomon's accession-date) hence becomes the calendar of Judah alone,¹⁰ and, from then on, each kingdom reckons time in its own way (McFall 1992).

A (potentially) pivotal moment/event in the dissolution of Israel's calendar is recorded in 1 Kings 12. Jeroboam is said 'to invent a month independently' (חדש אשר בדא מלבד) and to institute a northern kingdom feast 'on the 15th day of the 8th month', which is said to be

8. Steinmann's work builds on the foundational labours of Edwin Thiele, Leslie McFall, and Rodger Young (cp. in particular Thiele 1983, McFall 1992, Young 2005ff.).
9. Particularly in Egypt (cp. Murnane 1977).
10. That Solomon's reign is reckoned in Tishri years is implied by the text of 1 Kgs. 6. To see why, we first need to take a step back and discuss the notion of year-counts. In Scripture, intervals of time are typically measured *inclusively* (except where kings' reigns are measured). That is to say, when an interval of time is measured, its first and last units of time are both counted and if necessary rounded up. Consider, for instance, how the Israelites are instructed to count from the day after the Sabbath to the day after the Sabbath seven weeks later, and the total is said to amount to 'fifty days' (Lev. 23.15–16). Or consider Jesus' statement in Luke 13.32—viz., 'I cast out demons...today and tomorrow, and on the third (day) I finish my course'—, which mirrors the language of Exod. 19.10–11.

With these things in mind, then, recall the matter at hand. In 1 Kgs. 6.37–38, the interval between the 2nd month ('Ziv') of Solomon's 4th year and the 8th month ('Bul') of his 11th year is said to amount to 7 years. On what basis? Well, suppose, by way of illustration, we equate 'Nisan' with 'April'. And suppose the 1st Nisan-year of Solomon's reign began in April 2000. The Temple's construction would then run from May 2004 to Nov. 2011, which would amount to 7 years and 7 months and would most likely have been reckoned (in Jewish literature) as 8 years, all of which means Solomon's reign is unlikely to have been reckoned in Nisan-years. The question, then, is whether things work out any better with Tishri-years. And the answer is, Yes they do. Suppose the 1st (Tishri) year of Solomon's reign began on 1st Tishri = October 2000. The Temple's construction would then have run from May 2005 to November 2011, which would have been reckoned (inclusively) as 7 years.

'like the feast in Judah' (1 Kgs. 12.32–33). Is the similarity between Jeroboam's feast and the feast of Tabernacles a coincidence? It doesn't seem so. Rather, the text of 1 Kings 12.32–33 seems to describe a paganised version of the feast of Tabernacles viewed from the perspective of a calendar which is a month ahead of it—an idea we'll now consider in more detail.¹¹

Suppose Jeroboam chose to intercalate independently of Judah. That is to say, suppose Jeroboam chose to insert an extra month into the northern kingdom's calendar, as newly-liberated kingdoms frequently do.¹² (The Hebrew calendar intercalates by the addition of an extra 12th month, but certain calendars do so by the addition of a 6th month.) And suppose Jeroboam then observed the feast of Tabernacles in Bethel (rather than in Jerusalem). From the perspective of Judah's calendar, Jeroboam's feast would have taken place in the 8th month (rather than the 7th month), and could hence explain what we read in 1 Kgs. 12. That is to say, the text of 1 Kgs. 12 could simply reflect the southern kingdom's perception of the (newly-liberated) northern kingdom's feast of Tabernacles.

Either way, at some point in Jeroboam's reign, the northern and southern kingdoms' calendars uncouple. And, soon afterwards, our author's synchronisms fail, since, when our author equates the Xth year of the king of Judah with the Yth year of the king of Israel, his date-stamps are grounded in two different calendars (and methods of year-count). Once that principle has been recognised, however, what *seem* to be fundamentally incoherent histories snap into alignment, and the date-stamps preserved in the book of Kings can be shown to exhibit coherent patterns.

The southern kingdom turns out to consistently reckon in Tishri years, while the northern kingdom reckons in Nisan years (Young 2005:245–246). To mark the establishment of his dynasty, Jeroboam institutes a non-accessional calendar, which is characteristic of the system in Egypt (Kitchen 2001), where he holes out before his rise to power (1 Kgs. 11.40ff., 12.2). (Egypt may even have sponsored Jeroboam's reign in some way: 1 Kgs. 14.25.) One of the date-stamps employed in Asa's reign is predicated on a base-date of the inauguration of the southern kingdom (Thiele 1983:87ff.).

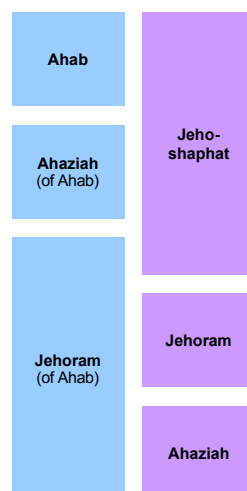
11. For context and references, cf. Robbins 1999:331.

12. Why? Because they can. For examples, cf. Stern 2012:253–255. Jeroboam may also have intercalated for practical reasons. Crops ripen at least a month later in northern Israel compared to southern Israel (Robbins 1999:330–331).

The southern kingdom includes co-regency figures in its year-counts, while the northern kingdom never does (Young 2005). And the co-regencies implicit in the southern kingdom's date-stamps can generally be shown to be consistent with its narrative.

For instance, towards the end of his life, Asa instates Jehoshaphat as his co-regent, which he presumably does in light of his (fatal) illness (1 Kgs. 15, 2 Chr. 16).¹³ Jehosophat does the same for Jehoram, presumably in light of the perilous battle he is about to enter (in which he does almost die: 1 Kgs. 22).¹⁴ Uzziah/Azariah is instated as a co-regent long before Amaziah (his father) dies, which may have happened when Amaziah was absent from his kingdom (2 Kgs. 14, 2 Chr. 25.1–26.1). Uzziah instates Jotham as his co-regent long before his death, presumably because he is afflicted with leprosy and forced to live in isolation (2 Kgs. 15a). And Jotham may have instated Ahaz as his co-regent as Rezin and Pekah began to close in on him (2 Kgs. 15b w. 16a). (Comparably good reasons for the instatement of a co-regent can't be found in the case of most other kings' reigns.)

At the same time, the way in which certain kings' reigns interlock reveals informative patterns. Consider, for instance, how Ahab and Jehoshaphat begin to name their heirs after one another (possibly by the assignment of throne names) after their families intermarry:



13. Cp. Thiele 1983:83, Young 2005:246.

14. Cp. Thiele 1983:99, Young 2005:246. *Ibid.* for further references in the above paragraph.

As such, the date-stamps in the book of Kings exhibit a coherent pattern, and are consistent with the details and tenor of the narrative in which they are found.

The post-exilic era

Finally, then, we come to the post-exilic era. The post-exilic era is part of ‘the times of the Gentiles’. Consequently, Scripture reckons years either by reference to the reign of Gentile kings or by reference to the dates of Israel’s exile and return. We read of the 25th year of the exile (Ezek. 40), the 1st year of Cyrus (2 Chr. 36.22, Ezra 1.1), the 2nd year of Israel’s return (Ezra 3.8), the 2nd year of Darius (Zech. 1.1), the 7th year of Artaxerxes (Ezra 7.8), and so on. And Luke continues the same system in the NT, since he dates his narrative not by reference to Herod’s reign, but by reference to Caesar’s (Luke 3.1).

Meanwhile, the Canaanite month names mentioned prior to the exile (‘Abib’ in Exod. 13.4, and ‘Ziv’ and ‘Bul’ in 1 Kgs. 6.1, 38) are replaced by Mesopotamian month names (‘Nisan’, ‘Adar’, etc.), as one would expect given Mesopotamia’s influence on Israel’s culture.

Nevertheless, dates can sometimes be seen to retain a Jewish character. Nehemiah, for instance, refers to ‘Nisan in the 20th year of Artaxerxes’ (Neh. 2.1), which appears to postdate Kislev of the same year (1.1). If so, Nehemiah must have date-stamped his memoirs in accord with Tishri-year calculations, per the Judahite rather than the Mesopotamian system. Either way, the date-stamps employed in post-exilic literature are consistent with the existence of a Jewish nation under Gentile rule.

It may also be possible to detect a sequence of Sabbatical years in the Bible’s post-exilic literature, since Sabbatical-year-related activities seem to take place at seven-yearly intervals. On the 21st day of the 7th month (i.e., at the end of the feast of Tabernacles), Haggai receives a prophetic word. And two months later Haggai asks Israel if their seed is still in their barns (Hagg. 2), which one might not expect it to be outside of a Sabbatical year.¹⁵ In the 5th month of the year, Ezra sets out from Babylon in order to teach the

15. The syntax and referents of Hagg. 2.19, however, are open to multiple interpretations.

word of God in Jerusalem, in which case he would probably have arrived in Jerusalem in the 6th month (in time for a 7th month assembly). And, in Nehemiah's day, Ezra reads the law at a public assembly in the 7th month (Neh. 8.2 w. 2.1, 6.15, 13.6), per the command of Deut. 31.10ff.

These dates can plausibly be connected by a Sabbatical cycle (shown below), which happens to synchronise with the post-exilic Sabbatical cycle reconstructed by Zuckermann on the basis of texts such as Maccabees, Josephus, and the Talmud (Zuckermann 1857).¹⁶

Date of Accession	King	Accession Year	Proposed 1 st Year	Year of Assembly	Inferred Sabbatical
29 th Sep. 522	Darius	523 ^l /522 ^t	522 ^l /521 ^t	2 nd year	521 ^l /520 ^t
20 th Dec. 465	Artaxerxes	465 ⁿ /464 ⁿ	464 ⁿ /463 ⁿ	7 th year	458 ^l /457 ^t
20 th Dec. 465	Artaxerxes	465 ^l /464 ^t	464 ^l /463 ^t	21 st year	444 ^l /443 ^t

A note on the above table: The listed 'date of accession' constitutes the earliest preserved evidence of the relevant king's accession, i.e., the *terminus ante quem*. For documentation of the reigns of Darius and Artaxerxes, cf. Poebel 1939 and Neuffer 1968 respectively, w. Parker & Dubberstein 1965. Meanwhile, our proposed accession year of 523^l/522^t assumes a 1st Tishri date of 19th Oct. 522 in Judah, a month behind the equivalent in Babylon's calendar, which is well within the bounds of possibility. Per standard Judahite practice, all regnal years are reckoned post-accessionally.

That Haggai and Ezra reckoned in the manner I have suggested above cannot be proven. Nevertheless, that the activities of Hagg. 2, Ezra 7, and Neh. 8 can, potentially, be connected together by an independently attested Sabbatical cycle seems noteworthy.

16. Steinmann and Young have proffered a different post-exilic Sabbatical cycle, though (in my view) in error. I hope to write up my research on the subject soon. In the meantime, the reader can consult Stern 1999, 2001:39–42, 2017, which provides strong evidence in favour of Zuckermann's Sabbatical cycle.

A brief/preliminary assessment

In sum, then, the year-stamps inherent in the text of Scripture form a coherent and apparently authentic pattern. We do not find evidence of, for instance, unified calendars in periods where Israel's society lacked a central administration (e.g., in the era of the Judges), nor do we find vague measurements of time where we would expect to find precise ones (e.g., in the books of Kings and Chronicles, which are replete with specific regnal figures), nor do we find later calendrical conventions (such as Babylonian month names) imported back into earlier texts. Meanwhile, at times of transition (such as the time of the exodus), we find traces of multiple calendrical systems. In the aftermath of major events (such as the exodus and the division of the kingdom), we find those events employed as the base-dates of eras. Prior to the monarchy, we find localised measurements of time (such as Jephthah's reference to the length of time his people have inhabited the Trans-Jordan). And, in the days of the divided kingdom, we find the kind of messiness/complexity we would expect to find where measurements of time from different calendars are incorporated into a single narrative.

Israel's Sabbatical and Jubilee system

Next up, a word or two on Israel's most distinctive measure of time, namely the Sabbatico-Jubilee cycle.

The Biblical record of Israel's stay in Canaan can be shown to reflect a regular Sabbatico-Jubilee cycle. In order to establish its course, the first thing we need to do is establish the duration of Israel's (initial) stay in Canaan.

Happily, a large chunk of our work has already been done for us, since the author of 1 Kings 6.1 assigns the construction of the Temple to the 480th year of the exodus.¹⁷

We simply, therefore, need to establish the length of the interval between Solomon's rise and Jerusalem's fall. To do that, however, we can't simply total up all the reigns recorded in Kings and Chronicles (due to the existence of co-regencies), as we've seen. Thankfully, though, the dates of Solomon's rise and of Jerusalem's fall can be established in other ways.

Specifically, the start of Solomon's reign (i.e., Solomon's 1st year as it is reckoned in Kings and Chronicles) can be dated to the year 971^t/970^t.¹⁸

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17. To interpret 1 Kings 6's reference to 480 years as symbolic of, say, twelve generations and hence as less than 480 years in length is historically odd. Paul and Josephus's references to the Judges' era (cp. Acts 13, *Ant.* VIII.3.1, XX.10.1) imply, if anything, a period of over 480 years between the exodus and the Temple's construction (though both statements *can* be read in a manner consistent with a 480-year period: cp. below), as do Africanus's (Finegan 1998:154ff.), while the *Seder Olam* interprets 1 Kings 6 literally (SO 15), as do Eusebius (Finegan 1998:160ff.) and later Jewish commentaries (e.g., *Da'at Zkenim* on Deut. 28.63, *Rabbeinu Bahya* on Deut. 4.25, etc.).
18. The date of Solomon's accession can be established by the triangulation of three independent data-points: a] the Black Obelisk stone of the Assyrian King Shalmaneser III, from which the dates of Solomon's reign can be backed out in two different ways (i.e., via the northern and southern kingdom's lines of kings); b] Egyptian records of Shoshenq I's reign, which can be synchronised with Rehoboam's reign (though the objections of David Rohl should be noted: e.g., Rohl 1992); and c] the Tyrian King List (preserved by Josephus), which can provide a date for the construction of Solomon's temple (due to Hiram's involvement in it). Remarkably, all three calculations assign Solomon's date of accession to the same year, viz. 971/970 (cp. Kitchen 2001, Young 2003, 2007, Steinmann 2011:37–45), which agrees with Thiele's calculation (Thiele 1983:67–78). And Kitchen adduces further calculations, which demonstrate 971/970 to be in the right ball-park (Kitchen 2001). Most remarkable of all, perhaps, is the calculation performed by the little-known chronologer Valerius Coucke in 1925 without reference to any Biblical data at all, which also implies an accession date of 971/970 (on which cf. Young 2010). In sum, then, Solomon's date of accession

Meanwhile, the fall of Jerusalem can be dated to July 587 BC (Young 2004).¹⁹

Granted these two dates, three derivative claims can be inferred.

First, the exodus took place between 479 and 480 years prior to the 2nd month of Solomon's 4th year—i.e., before April/May of 968^t/967^t BC—, which yields a date for the exodus of Nisan 1446 BC.

Second, by extension, Israel entered Canaan in Nisan 1406 BC (i.e., 1446 BC + 40 years), at which point they observed their 40th Passover and began to eat the produce of Canaan, i.e., crops they hadn't sown (Josh. 5, 24.13). As such, 1406^t/1405^t BC notionally became (we may assume) the first year of a Sabbatico-Jubilee cycle. Or, to put the point another way, 1407^t/1406^t notionally became a Jubilee year.²⁰

Third, by further implication, the last pre-exilic Jubilee cycle ran from 623^t/622^t to 574^t/573^t, where $623^t/622^t = 1407^t \text{ BC} + (16 \times 49)$.²¹

can be affirmed with a fair amount of confidence.

19. A number of scholars still affirm a date of July 586 BC for Jerusalem's fall (per Thiele 1983), but Thiele's calculations have been corrected by Young, whose work on the matter is decisive (Young 2004).
20. Joshua's description of the conquest of Jericho (which occurred a few days after Israel's 40th Passover) is associated with a host of Jubilee-esque imagery. Like the Jubilee year, Jericho's conquest: a] begins with an act of purification (cp. the Israelites' circumcision w. the day of Atonement, when the Jubilee begins); b] is accompanied with a change in diet, i.e., with the consumption of produce not planted by the Israelites (cp. Josh. 5.10–12 w. Lev. 25.3–5); c] is connected with the intensification of groups of seven (Jericho falls when seven trumpets are blown as the Israelites march around the city seven times on a 7th day); d] makes special provision for a house within a walled city, namely Rahab's (cp. Josh. 2.15, 6.17 w. Lev. 25.29–30); and e] is inaugurated by the sound of a ram's horn (שופר יובל), where the word 'horn' (יובל) resonates with the word 'Jubilee' (יובל). As such, the fall of Jericho makes an apt 'Jubilee-Zero' event. It establishes YHWH's ownership over the land of Canaan/Israel. And, as such, each subsequent Jubilee re-declares and re-establishes YHWH's past work, even while it looks forward to YHWH's final worldwide Jubilee when two witness again enter a city, seven trumpets are blown, and YHWH's Messiah reclaims the nations from Satan's grasp (cp. Rev. 11).
21. Some scholars take the Jubilee cycle to culminate in two Sabbatical years (viz. a 49th and a 50th), but the reference to 'the 50th year' in Lev. 25 is simply an inclusive count from one Sabbatical year to the next, just as the feast of Weeks involves a count of 'fifty days' (hence the name 'Pentecost') from one Sunday to the Sunday seven weeks away (Lev. 23.15–16). For further detail and argumentation, cp. Young 2006a:5–8, 2008:54–64.

Note: That the Jubilee cycle began as soon as Israel entered Canaan is consistent with Moses's command (Lev. 25.2ff.) as well as with (certain statements in) the *Seder Olam*.²² And, contra the claims of some commentators, the Jubilee needn't be seen as a later Priestly concept. The text of Lev. 25 appears to contain a number of archaic terms (Hartley 1992:428).²³ One-off Jubilee-esque years in which slaves are released and debts annulled are known to have been proclaimed in various ANE cities since the 3rd mill. BC (Bergsma 2007:19–29).²⁴ And recurrent Jubilee-esque years are known to have been observed in Egypt since the time of the Old Kingdom (Hornung 1991), though their periodicity remains unclear.

The three dates established above are supported by at least three independent lines of evidence. First, the chronological data contained in the books of Kings and Chronicles. As Thiele et al. have shown (cp. above), a consistent and continuous Judahite king list can be constructed from the data contained in Kings and Chronicles, which runs from Solomon's 1st year through to the year of Jerusalem's fall.

Second, the chronological data contained in the book of Judges. Given the data contained in the book of Judges, a plausible history of Israel's early years in Canaan can be reconstructed, which runs from Joshua's division of the land of Canaan through to the end of Abdon's judgeship in Ephraim (in c. 1062 BC), at which point Samuel takes over the reins, and dovetails remarkably neatly with the key events of 1 Sam. 1–7 (Bejon 2020).

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22. *Seder Olam* 30 associates the establishment of the Sabbatico-Jubilee cycles with the Israelites' 'arrival' (ביאה) in Canaan in the days of Joshua (cp. below). It elsewhere proposed a 14-year gap between Israel's arrival and the start of the Sabbatico-Jubilee cycle. But, as we'll see, that 14-year gap is a postulate assumed in order to explain a discrepancy, rather than a primitive data-point.
23. Examples include מוך = 'to be(come) poor' and לצמיתת = 'permanently' (Hartley 1992:428), neither of which occur outside of Lev. 25 in Scripture, yet both of which have cognates in 13th cent. Ugaritic texts. Particularly instructive is the stock Ugar. clause «šamid adi dariti» = 'lié pour toujours', which occurs in numerous legal texts and exactly parallels the Hebrew לצמיתת ... לדירתיו (Lev. 25.30) (cp. Rabinowitz 1958). («šmid» may be a local term, since it is not attested with the sense 'to bind' in Mesopotamian legal texts: Van Soldt 2010:95.) The term 'Jubilee' (יובל) is also worthy of note, since it is not explained in the text of Lev. 25 (or elsewhere) and its etymology hardly speaks for itself. As such, its usage in Lev. 25 suggests it is a term with which the text's readers are already familiar.
24. These years later come to be known as «andurāru» years—a term which is cognate with the Bib. Heb. term דרור = 'release'. Note, however, an important difference between «andurāru» years and Jubilee years. «Andurāru» years take place when a king deems it prudent/appropriate. Jubilee years, however, are to be observed at God's appointed time (in remembrance of his regular governance and ownership of creation), and God is to be trusted in order to make their observance possible.

Third, the chronological data contained in Ezekiel, which we'll now consider in detail.

Ezekiel's final vision is dated to 'the 25th year of the exile', which places it in the year 574^t/573^t BC.²⁵ And, significantly, the superscript of Ezekiel's final vision identifies 'the 25th year of the exile' as a Jubilee year.

Ezekiel says he received his vision both 'on the 10th day of the month' and 'at the head of the year' (בראש השנה) (Ezek. 40.1). How can both of these statements be accurate? Why would Ezekiel refer to the 10th day of a month as 'the head of the year'? The most plausible answer—which is the answer proffered in Rabbinic texts (e.g., *b. Arakin* 12a)—is as follows: because the year in question was a Jubilee year, which began, as it always does, on the day of Atonement, i.e., on the 10th day of Tishri (Lev. 25.8–11).²⁶ Ezekiel's vision would, therefore, have coincided with Israel's 17th Jubilee, which is exactly what is implied in *Seder Olam* 11.²⁷

25. That Ezekiel reckons in Tishri years is demonstrated in Young 2004:25–28. Meanwhile, the date of the exile is attested in the Babylonian Chronicle, and can reliably be dated to 2nd Adar of 598ⁿ/597ⁿ BC. For Ezekiel, then, the 1st year of the exile is the year 598^t/597^t BC.
26. For discussion of the relevant Rabbinic texts, cf. Young 2006a. Note: That the Jubilee begins on the day of Atonement is, of course, not merely a calendrical quirk; it is rich with theological import. Restoration cannot proceed without—and in fact depends upon—atonement for sin.
27. The logic behind R. Yose's statements in *SO* 11 is not trivial to reconstruct. As far as I can make out, the situation is as follows. R. Yose is in a quandary. On the one hand, he believes Israel sojourned in the land for exactly 17 Jubilee cycles (cf. below). Yet, on the other hand, he believes the text of Ezek. 40.1 refers to a Jubilee year which occurred 14 years after Jerusalem's fall. (Note: Yose mistakenly equates 17 Jubilee cycles with 850 years, though that fact needn't concern us for now.) Prima facie, Yose's beliefs seem incompatible. If Israel entered the land at the start of a Jubilee cycle and stayed in the land for an exact number of Jubilee cycles, then they couldn't have left the land 14 years before a Jubilee year. Given Yose's data-points, Ezekiel's vision shouldn't have coincided with a Jubilee year; the fall of Jerusalem should have done so. Or at least so it would seem. 'What about the 14 extra years?' (היאך הן יתרים (יד) שנה), Yose therefore asks. (Here, *Yalqut Shim'oni Joshua* 23's יד seems preferable to *SO*'s יז, per Guggenheimer 1998:119.) How, then, does Yose make sense of his data-points? The answer is with the assistance of an additional item of information. Israel didn't start to observe/count Jubilee cycles, Yose says, until they'd conquered and divided the land, which they did at Shiloh (per Josh. 18), 14 years after they entered the land (שבע שכבשו ושבע שחילקו)—a claim also made in *b. Zevachim* 118b. Yose is hence able to make sense of Ezekiel 40's date-stamp. If Israel didn't start to count Jubilee cycle until they'd been in the land for 14 years, then Israel (effectively) entered the land 14 years before a Jubilee year. And if Israel entered the land 14 years before a Jubilee year, then it would make sense for them to have been exiled from the land 14 years before a Jubilee year (per Ezek. 40). (Cont'd overleaf.)

Granted these claims, Ezekiel's rather enigmatic date-stamp in 1.1 can, perhaps, be unravelled.

Ezekiel dates the start of his ministry simply to 'the 30th year', which Ezekiel's editor (who refers to Ezekiel in the third person) equates with 'the 5th year of Jehoiachin's exile' (1.2–3). But the 30th year of what? The answer is 'the 30th year of Ezekiel's Jubilee cycle'.²⁸ Ezekiel's Jubilee-to-Jubilee cycle runs from 623^t/622^t to 574^t/573^t BC (inclusively). As such, Ezekiel's 30th year = the year 623^t/622^t BC + 29 years, i.e., 594^t/593^t, which is the 5th year of Jehoachin's exile.²⁹

In addition, a tradition preserved in the Talmud can be adduced in support of the above Jubilee cycle.

In the 18th year of his 31-year reign, Josiah sought the advice of a prophetess named Huldah (2 Kgs. 22–23). In *b. Meg.* 14b, that incident is said to have transpired on a Jubilee year.³⁰ And that (alleged) Jubilee year can be shown to be consistent with Ezekiel's implied Jubilee cycle, as follows.

Observations: Yose's approach to the above problem is instructive. Yose clearly finds the text of Ezek. 40 awkward, which suggests he recognises it as a reference to a Jubilee year not because of the implications of a received year-count, but because of what the text plainly implies (and/or a received interpretation of it). As for Yose's claim about the division of the land, the text of Scripture doesn't (explicitly) assign the events of Josh. 18 to Israel's 14th year in the land, but Yose's claim seems plausible and may, therefore, derive from a reliable tradition. Joshua clearly divides/allocates the land in two stages. Five of Israel's tribes are (prospectively) allocated land in chs. 13–17 at Gilgal. (Until then, the Israelites have not 'occupied' the land, but ransacked it.) And the other seven tribes are officially allocated land in 18.1–22.6, once Israel's base of operations has relocated to Shiloh (from Gilgal) and the land has been 'subdued' (כבש) (cp. 18.1). The first of these two land-allocations can reliably be dated to the year 1400/1399, since it takes place 45 years after the 2nd year of the exodus (cp. Josh. 14.7–10). And the second takes place significantly later (since it requires further battles to have been fought in order to 'subdue' the land), hence Joshua's frustrated exclamation, 'How long do you plan to wait before you take possession of your territory!' (18.3). Moreover, the second land-allocation takes place at a formal assembly in Shiloh (18.1), which would fit the occasion of Israel's second Sabbatical year, i.e., her 14th year in the land.

28. As such, the book of Ezekiel begins and ends with Jubilee-anchored date-stamps, which is highly apt. Indeed, Ezekiel's prophecies are replete with numerical allusions to the Jubilee. Consider, by way of illustration, how the numbers employed in Ezek. 40's date-stamp ('in the 10th of the month' of 'the 25th year of the exile, viz. the 14th year of Jerusalem's fall') sum to a total of 49, as do those of 1.1–3's, where 30 (years) plus 4 (months) plus 5 (days) plus 5 (months) plus 5 (years) likewise sums to a total of 49. Note also how these sums rely on the specific oddities of Ezekiel's doubly-expressed dates.

29. For Ezekiel, the 1st year of Jehoiachin's exile is 598^t/597^t BC (cp. above).

30. The same claim is made in *Seder Olam* 24, which may in fact be the source of *b. Meg.* 14b's claim.

Suppose we rewind 30 years through the history of 2 Kings from the 30th year of Ezekiel's Jubilee-to-Jubilee cycle, i.e., from the 5th year of Jehoiachin's exile (Ezek. 1.1). Where do we end up? Well, first we move back through the first 5 years of Jehoiachin's exile (Ezek. 1.2–3); then we move back through the 11-year reign of Jehoiachin's predecessor (Jehoiakim) (2 Kgs. 23.36); and finally we move back through the last 14 years of Josiah's reign (i.e., through years 18 to 31), which brings us out at Josiah's 18th year. (For a more precise calculation, cf. Young 2006a.) As such, Josiah's 18th year can be identified as a Jubilee year.

Traces of the Jubilee in and around the Temple

As can be seen, then, the text of Scripture allows us to piece together a plausible reconstruction of Israel's Jubilee cycle. Of course, whether the Israelites *observed* the Jubilee year in practice (e.g., by the cancellation of debts) is unknown. Given their neglect of feasts such as the Passover and Tabernacles, the Israelites seem unlikely to have been observed the Jubilee with much enthusiasm. Nevertheless, as we'll see, the rhythm/periodicity of the Jubilee appears to have left its mark on Biblical history.

Israel's calendar is not simply a way to measure time. It imbues particular periods of time with particular significance.

The days of the week comes to a climax in the Sabbath. The weeks of the month come to a climax at the end of the second week—i.e., 14th day of the month—, since the moon waxes for two weeks and wanes for two weeks, which imbues the 14th day of each month (when the feasts of Passover and Tabernacles take place) with special significance. And the months of the year come to their climax in the 7th month (at *Rosh HaShanah*), when the bulk of the harvest is gathered in, at which point three major holy days occur in quick succession (Trumpets, Atonement, and Tabernacles).

As such, the flow of time in Israel is non-uniform. Time flows up to the 7th month of the year, where it momentarily pauses before it flows down into the latter months of the year. And, significantly, the Jewish people do likewise. In the 7th month, they flow up to Jerusalem (to celebrate the feast of Tabernacles), where they remain for seven days before they return to their hometowns.

Longer-term structures are also built into the Hebrew calendar. If the 7th month marks the pinnacle of the year, then the 7th year marks the pinnacle of a week of years. It is a year of 'release' (שמיטה)—a time when slaves and debts are (temporarily) 'released' (Deut. 15) in anticipation of a greater (divinely-enacted) release to come.

And, if the Sabbatical year marks the pinnacle of each week of years, then the year of Jubilee marks the pinnacle of each seven

weeks of years, and hence provides an even more pronounced foreshadow of the release to come (cp. Dan. 9.24–27).³¹

As René Padilla writes, ‘(The Jubilee is)...a sort of institutionalised exodus in which...the experience of liberation from slavery is renewed and a new day of justice and peace dawns’ (Padilla 1996:22).

Given the momentous nature of the Jubilee year, the Jubilee’s day of Atonement would have been an immensely important event, which the Israelites would no doubt have anticipated with great excitement. As the focal-point of the Yom Kippur ritual (when the Jubilee was announced: Lev. 25.9)—would have become a hub of activity and anticipation as the Jubilee drew near—a fact which appears to be left a mark on Biblical history. As Lee Casperson has observed, at the peak of each Jubilee cycle, the Temple becomes the focus of many kings’ attention³² (Casperson 2003³³), as is shown in the table below. (My dates for Joash and Hezekiah’s reigns come from Young 2005:246.)

Jubilee	Peak of Cycle	Event
966 ⁱ BC	972–960 BC	Solomon starts work on the Temple (968 ⁱ BC).
917 ⁱ BC	923–911 BC	
868 ⁱ BC	874–862 BC	
819 ⁱ BC	825–813 BC	Joash repairs the Temple (c. 814 BC).
770 ⁱ BC	776–764 BC	
721 ⁱ BC	727–715 BC	Hezekiah repairs the Temple (c. 716 BC).
672 ⁱ BC	678–666 BC	
623 ⁱ BC	629–617 BC	Josiah repairs the Temple (623 ⁱ BC).
574 ⁱ BC	580–568 BC	Ezekiel sees a new temple in his visions (574 ⁱ BC).

31. Does the Jubilee involve a play on words insofar as it results in a ‘flow/movement’ (דָּרוֹר) of people as well as the ‘freedom’ (דְּרוֹר) of people? If so, similar wordplay may be inherent even in the term ‘Jubilee’ (יובל) insofar as it resonates with the word יָבַל = ‘stream’.

32. A similar notion may be reflected in the book of Jubilees’ cosmic chronology, which begins at creation and culminates in the construction of an eschatological temple in a Jubilee year (*Jub.* 1.29).

33. Casperson’s work is helpful, though is not based on the best/latest chronological research. It is also problematic insofar as Casperson back-extrapolates his pre-exilic Sabbatical dates from known post-exilic Sabbatical dates, which may or may not be valid. (The Israelites were not obliged to observe Sabbatical years outside of the land: Lev. 25.2ff.)

Note: Since slaves were released on the year of Jubilee, a large workforce would, presumably, have been available on (and immediately after) the Jubilee. Work on the Temple may sometimes, therefore, have been scheduled for a Jubilee year (or immediately after it) for pragmatic reasons. Note also: Kings elsewhere in the ANE are known to have issued Jubilee-esque proclamations of freedom/liberation from time to time, which are not infrequently connected with the restoration of temples, possibly for the same reason (Casperson 2003:289).

A similar table can be produced for the period from 458^t BC onwards, which is when Ezra is said to have reinstituted a Jubilee cycle in Israel (*Seder Olam* 30).³⁴

Jubilee	Peak of Cycle	Event
458 ^t BC	464–452 BC	Ezra bolsters the Temple's resources (c. 458 BC).
409 ^t BC	415–403 BC	(Nehemiah purges the Temple?)
...	...	
164 ^t BC	170–158 BC	Judas Maccabeus liberates the Temple (c. 164 BC).
115 ^t BC	121–109 BC	
66 ^t BC	72–60 BC	
17 ^t BC	23–11 BC	Herod begins work on the Temple (c. 20 BC).
33 ^t AD	27–39 AD	Jesus' resurrection inaugurates a new temple (c. 33 AD).
82 ^t AD	76–88 AD	
131 ^t AD	125–136 AD	Bar Kochba revolts over Temple-related issues (131 ^t AD).

Note: Here, my dates come from Cohen 2006 and Steinmann 2011, since Young does not cover the post-exilic era in his chronological papers.

34. *Seder Olam* 30 states, '(The Israelites') arrival in Ezra's day is like their arrival in Joshua's day. Just as (at the arrival) in the days of Joshua, they became subject to tithes, Sabbatical years, and Jubilees,...so too (they did) at their 'arrival' in the days of Ezra'. (For the year of Ezra's return, cf. above.)

Judah's exile

Before we conclude the present section, one further line of evidence for our reconstruction of Israel's Sabbatico-Jubilee cycle should be noted, namely the calculation inherent in the duration of Judah's exile.

In 2 Chronicles 36.17–21, the fall and exile of Jerusalem is described. Since 'the land' has not been granted its appointed Sabbatical years, the Babylonians are sent to wage war against Jerusalem (36.17–20) and the Judahites are ultimately borne away into exile (per the promise of Lev. 26). In their absence, the land enjoys its missed years of Sabbatical rest, which it completes at the same time as Babylon's seventy years of dominance over the ANE are complete (cp. Jer. 25.8–12, 29.10–11). How many Sabbatical years Judah misses prior to the invasion of the Babylonians is not stated in 2 Chronicles 36 (or anywhere else). But, when we calculate the answer, it turns out to be significant.³⁵

The Babylonians invaded in 590^t/589^t BC. Jerusalem fell in the summer of 587 BC. And Babylon's seventy years of dominance came to an end in October 539 BC = c. the 8th month of 539/538 BC (Young 2004). As a result of Babylon's intervention, then, the land of Judah enjoyed 49 Tishri-years' worth of rest (from 587^t/586^t through to 539^t/538^t BC),³⁶ which suggests Judah failed to observe 49 Sabbatical years.

35. The seventy years mentioned in 2 Chr. 36 are frequently identified with a 'seventy year exile', which is taken to span the interval 605–535 BC. But Judah's 'exile' is never connected with the events of 605 BC, and the Bible nowhere mentions a seventy-year *exile* in any case. True, Jeremiah refers to a period of seventy years in Jer. 25.8–12 and again in 29.10–11. But these seventy years are not said to span Judah's exile; they are said to span Babylon's period of dominion over the ANE. Furthermore, they cannot be identified with the period 605–535 BC, since, as far as Jeremiah is concerned, Babylon is not judged until the seventy years have expired (25.8–12), yet, as far as ANE history is concerned, Babylon fell in 539 BC, *before* the end of the period 605–535 BC. Consequently, the seventy years mentioned in 2 Chr. 36.20–21 cannot refer to Judah's exile. So, what *do* they refer to? The answer is remarkably simple: they refer to the same period of seventy years as Jeremiah refers to. As such, the text of 2 Chr. 36.20–21 makes three specific claims. First, Nebuchadnezzar has led the Judeans into exile in fulfilment of Jeremiah's prophecy. Second, for as long as Judah remain in exile, the land will enjoy its (missed) Sabbatical rest. And, third, Judah will remain in exile until Babylon's seventy years of dominance over the ANE has run its course, per Jeremiah's prophecy (cp. Jer. 25, 29).

36. The Judahites were absent from the land in 587^t/586^t and hence unable to plant crops, and would not have been able to return to the land in 539^t/538^t, in which year the land would also, therefore, enjoy a rest.

Suppose, then, as an experiment, we rewind 49 Sabbatical years from 590^t/589^t BC, when the Babylonians laid siege to Jerusalem. Where do we end up? Well, the first Sabbatical year would be 595^t/594^t BC, and the 49th would be 931^t/930^t BC, which coincides with a significant moment in Judah's history. The year 971^t/970^t BC was Solomon's 1st year (cp. above), which makes 932^t/931^t BC his 40th year and (simultaneously) Rehoboam's 1st year (Young 2005:246) and, as such, the moment when Judah was born as a nation (1 Kgs. 11–12).

The implication of the length of Judah's exile is, therefore, as follows. Just as Israel failed to observe a Passover or feast of Tabernacles (in the proper manner) for the entire period from Joshua's day through to Josiah's and beyond,³⁷ so Judah failed to observe a proper Sabbatical rest for her entire pre-exilic life. Every one of her 49 Sabbatical years from 931^t/930^t through to 595^t/594^t BC went unobserved.³⁸ And, as a result, Babylon enforced a 49 Tishri-year exile on Judah. Just as the Chronicler said, the land enjoyed its Sabbath rest until Jeremiah's/Babylon's 70 years were fulfilled (2 Chr. 36.21).

In sum, then, the Biblical narrative is predicated on a consistent Sabbatico-Jubilee cycle. The Bible's chronological indicators are a credible source of information, and Israel's calendar can be shown to have been a significant influence on the shape and flow of Israel's history.

37. Cp. 2 Kgs. 23.22–23, 2 Chr. 35.18, Neh. 8.17.

38. In a sense, the Sabbatical year of 588^t/587^t BC would have been (at least partially) observed, though only by virtue of Jerusalem's siege, which underlines the purpose of the Babylonians' invasion. It is irrelevant, however, for the purpose of our calculations. 2 Chr. 36.17–21 should, I believe, be read as a unit. In 590^t/589^t, YHWH sends the Babylonians to wage war against Jerusalem based on the number of unobserved Sabbatical years between Rehoboam's accession and that point in time.

The role/influence of the priesthood

As can be seen, Scripture's time-stamps exhibit a coherent and credible pattern. Within them, an important sub-pattern can be identified.

In Scripture, the administration of time seems to be the preserve of Israel's priesthood. The Biblical narrative opens with two 'aged genealogies', i.e., genealogies where the author records how long each member of the genealogy lives (Gen. 5, 11). These genealogies are significant. By means of human lives, they measure the progress of time as God's promise unfolds. While the descendants of Cain are left behind in the undated/undifferentiated mists of time, a ten-member genealogy takes us from Adam down to Noah (Gen. 5). And, while the descendants of Ham and Japheth are likewise left behind, a second aged ten-member genealogy takes us from Shem down to Abraham (Gen. 11). Then, over the course of what follows, the lifetimes and generations of Abraham, Isaac, and Jacob are recorded (cp. Gen. 25.7, 35.28–29, 47.28 w. 25.19, 37.2), at which point the text of Exodus 6 picks up the story with a final aged genealogy ('the generations of Levi'), which takes us from Levi down to Amram (the father of Moses and Aaron), while Pharaoh and his armies are left behind on the wrong side of (or in) the Red Sea.

As such, the elapsed time between the creation of mankind and the establishment of the Aaronic priesthood is measured by means of a human genealogy, which represents the gradual revelation/advancement of God's purposes in history.

But why, one might ask, do the 'generations' (*toledot*) of Genesis terminate in the birth of *Aaron* in particular? The most plausible answer (in my view) is as follows: because, from the days of Aaron onwards, time comes to be measured in the ordinances of the Tabernacle/Temple, where God's appointed calendar is maintained. The guardianship of time is passed on from Moses' *toledot* to the sanctuary liturgy.

Days are counted (by means of the daily sacrifice). Weeks are counted (by means of special Sabbath sacrifices). Years are counted (by means of, among other things, the Yom Kippur ritual). Weeks of years are counted (by means of Sabbatical years). And Jubilees are counted (by the proclamation of Jubilee years).

As such, the progress of time is continually measured in and by the sanctuary liturgy, which may be able to explain certain tendencies in Biblical literature.

Note: The observation of regular cycles tends to keep time very well, especially when those cycles are embedded into society, which seems to have been true in Israel's case. Trade could not be done on a Sabbath; feasts could only be observed in the appropriate months; crops could not be harvested in a Sabbatical year; land could not be bought but merely 'rented' until the next Jubilee; and so on. As a result, years could have been measured in quite a natural way. And if anyone lost count and, say, failed to return a piece of land at the right time, he'd soon find out about it.

The distribution of day-stamps in Scripture

Our most precise measurements of time in Scripture are almost invariably related to events in and around the Israel's sanctuary. We have no direct day-stamps to tell us, for instance, when Samson and Samuel began their careers as judges, or when Saul was anointed king, or when David conquered Jerusalem, or when Solomon was enthroned. Indeed, out of a thousand year's worth of events in Israel, only a handful of non-sanctuary-related events are day-stamped, namely the exodus (Exod. 12.18, 16.1, etc.),³⁹ the day when Israel entered Canaan (Josh. 4.19), the day when Jerusalem fell (2 Kgs. 25), the days on which Ezra carried out key activities (Ezra 7.9, 8.31, 10.9, 16–17, Neh. 8.2, 9.1), the day when Nehemiah finished the restoration of Jerusalem's wall (Neh. 6.15), and the days on which Ezekiel received visions and performed prophetic activities (Ezek. 1.1, 20.1, 24.1, etc.).⁴⁰⁴¹

And, significantly, most if not all of these activities can be traced back to the priesthood in some way. Israel's exodus and census were led/administered by Moses (a Levite), Israel's entrance into Canaan was led by the Levites (Josh. 4), the dates recorded in 2

39. We could also, potentially, add the date when Israel's first census was taken (Num. 1.1, 18), though it may well have been administered by the Levites (and stored in the sanctuary), since Levites were not numbered in census.

40. In one case at least, Ezekiel is explicitly told to date his prophecy ('Write down the name of this day, son of man!': Ezek. 24.1).

41. Our other day-stamped activities—namely the dates of Jehoiachin's release from prison in Babylon, Daniel's fast in Babylon, and Esther's activities—presumably derive from Babylonian and Persian records.

Kgs. 25 may well stem from the records of Jeremiah the priest (Jer. 52),⁴² and both Ezekiel and Ezra were priests.

By way of contrast, a whole array of sanctuary-related events come with day-stamps. We know the day the Tabernacle was erected (Exod. 40.17), the day the Passover was first observed (Num. 9), the day the Tabernacle was first moved (Num. 10), the day of Aaron's death (Num. 33.38) and of Moses's farewell address to the Israelites (Deut. 1.3), the day of the Temple's dedication (2 Chr. 7), the day a rival system of worship was established in the northern kingdom, i.e., the day of Tabernacles (1 Kgs. 12.32), the day the Temple began to be cleansed by Hezekiah (2 Chr. 29.17), the day God's presence left the Temple (Ezek. 8–11), the day the Temple burnt to the ground (2 Kgs. 25.8–9), the day the Temple sacrifices recommenced (Ezra 3.6), the days of Haggai and Zechariah's prophecies about the Temple's reconstruction (Hag. 1.1, etc., Zech. 1.7 w. Ezra 5.1, 6.14), and the day the Second Temple was finished (Ezra 6.15).

The non-uniform nature of Scripture's distribution of day-stamps seems unlikely to be a coincidence. Might day-stamped texts be day-stamped because they were composed/edited/preserved where Israel's calendar was maintained, i.e., in the sanctuary?

Note: Some of these day-stamps may have been added by Temple administrators. Recall, for instance, Ezekiel's day-stamp in 1.2–3 (discussed above). Ezekiel opens his prophecies in the first person with a rather cryptic reference to a 30th year (1.1), which is then clarified by a comment in the third person (1.2–3).

The book of the law at least appears to have been preserved in the sanctuary. As Dirk Jongkind notes, the tablets of the law are housed in the ark (1 Kgs. 8.5), which is made specifically in order to house God's word (Deut. 10.1–5). And the book of the law is later entrusted to the Levites, whose job is to carry the ark (Deut. 31.24–26)—a fact which may explain why kings are told to make a copy of the law 'from before the Levitical priests' (מִלִּפְנֵי הַכֹּהֲנִים הַלְוִיִּם) (Deut.

42. Jeremiah's records assign Nebuchadnezzar's second invasion to his 19th year in 52.12 yet to his 18th year in 52.29. As such, Jeremiah appears to have worked with two different sources or two different calendars (or both). One of Jeremiah's dates seems almost certain to represent the date of Nebuchadnezzar's invasion as stated in Babylon's official calendar, which is post-accessional, in which case the higher year-count (in 52.12) presumably reflect a conversion of Babylon's dates into the priestly (Tishri-based) calendar (since Nebuchadnezzar acceded to the throne on 1st Elul: Horn 1967:24–25).

17.18). Just as master-copies of deeds and prophecies are 'laid up' (to allow later generations to consult them: Isa. 8.16, 29.11, Jer. 32.10–11, Dan. 8.26, 12.4), so a master-copy of the law appears to have been laid up in the vicinity of the sanctuary.

The sanctuary and priesthood continue to play a central role in the preservation/custody of God's word in the days of Moses's successors. In 1 Sam. 10.25, the sanctuary is seen as the place where regulations are safeguarded (e.g., 1 Sam. 10.25). In the days of Josiah, the book of the law is (re)discovered in the Temple (2 Kgs. 22). In the post-exilic era, it is Ezra (the priest) who returns to Jerusalem to proclaim God's law there (where it appears to be unknown) (Ezra 7–8), and who reads the 'book of the law' to the assembled people (Neh. 8). And, in Jesus' day, the scribes and Pharisees who sit on Moses's seat are acknowledged by Jesus as bearers of authority (although not as personal role models: Matt. 23.2–3).

Might, therefore, the presence of day-stamps in Scriptural texts speak to their place of composition or preservation? More specifically, might texts bear day-stamps because they were housed in the sanctuary soon after their composition?

Suppose, for a moment, they do. We can then (notionally) divide up the books of the Prophets into Temple-housed texts and non-Temple-housed texts (where 'housed' = 'housed soon after composition').

The Temple texts turn out to consist of Jeremiah, Ezekiel, Haggai, and Zechariah, which makes good sense, since: a] Jeremiah and Ezekiel are both priests (Jer. 1.1, Ezek. 1.1), and b] Haggai and Zechariah's prophecies are directly addressed to Joshua the high priest (e.g., Hagg. 1, Zech. 3, 6) and directly related to the Temple's (re)construction.⁴³

By implication, then, the remainder of the Prophets must be non-Temple texts, which also makes sense. One would not, for instance, expect the prophecies of a northern prophet like Hosea to have (initially) been kept or preserved in the Temple. And we know very little about the background of most of the other Prophets (e.g.,

43. Haggai and Zechariah prophesied after the re-institution of the daily sacrifices, which would have provided a context in which their prophecies could have been dated (cp. Ezra 5.1–2 w. 3.2–8).

Isaiah, Micah, Joel, etc.), which may well be because their texts were (initially) composed and preserved outside of the Temple and could not, therefore, be married up with the Temple's genealogical records.⁴⁴ (Consider, by way of contrast, Jeremiah the priest's condemnation of Jehoiachin—viz. כְּתֹבוּ אֶת-הָאִישׁ הַזֶּה עֲרִירִי = 'Register this man as childless!'—, which suggests Jeremiah was in contact with people who compiled genealogies: Jer. 22.20.)

Might, therefore, some of the distinctions often drawn between Priestly and non-Priestly texts find their explanation in the Biblical narrative itself rather than in a hypothetical reconstruction of it?

Either way, our discussion has revealed a potentially significant fact: the majority of the Bible's 'day-stamps' are bound up with the sanctuary and/or priestly liturgy, which may inform us about their composition and/or preservation.

44. The book of Daniel is a special case. Its final vision is day-stamped (10.2–4), yet the vision in question was received and (presumably) recorded in Babylon, which makes it unlikely to have been dated at the Temple. Despite its place of composition, however, Daniel seems to be aware of—and to organise his activities around—Israel's liturgical cycle. He prays three times per day (at 'the hours of prayers', per Acts 3?). In ch. 9, he says he is in prayer 'at the time of the sundown sacrifice' (מִנַּחַת עֶרֶב) (cp. 9.21). And, in 10.2–4, his 21 days of devotion perfectly straddle the Passover. Meanwhile, the year-stamp in Dan. 7.1 appears to have been added by an editor (hence it refers to Daniel in the third person).

Appendix A

The text of Num. 13.22 contains an isolated time-stamp, which refers to the period between the books of Judges and Kings. Hebron is said to have been ‘built’ seven years before Zoan (aka ‘Tanis’) was ‘built’ (בנה). Which event/events does Num. 13.22 have in mind? In Scripture, a city can be described as ‘built’ either when it is founded (e.g., Gen. 4.17, 11.4, etc.) or when it is ‘built up’ = ‘established as a capital’ (e.g., in the case of Shechem in 1 Kgs. 12.25, Samaria in 16.24, etc.).

Num. 13.22 could plausibly, therefore, refer either to the initial foundation of Zoan or to its later establishment as a capital city. The first event, however, cannot be in mind, since Zoan existed long before David was born. Yet, in c. 1001 BC, Zoan rose greatly in significance when Psusennes—after he had established it as a fully-fledged capital—bequeathed Zoan to his son (Amenemope), who became the first 21st Dynasty king to be recognised in both Upper Egypt (Thebes) and Lower Egypt (Kitchen 1986). And, significantly, at about the same time (in c. 1002), David conquered Jerusalem (Steinmann 2011:116–117), seven years prior to which he established Hebron as his capital (1 Kgs. 2.11). As such, Hebron can be said to have been ‘established’ as a capital seven years before Zoan became similarly ‘established’ (per Num. 13.22). And it would not seem unnatural for an 11th cent. author to calibrate time on the basis of Egypt’s dynasties/capitals, since Egypt were then a/the major force in the region.

Appendix B

The events of chs. 17–21 are some of the bleakest in Scripture. In terms of the book of Judges' narrative, their purpose is to provide the reader with a stark and horrific portrayal of where the kind of moral decline outlined in chs. 3–16 invariably ends up.⁴⁵ The Israelites are reduced to civil war rather than conquest (cp. 20.18 w. 1.1–2) and will end up morally indistinguishable from the Canaanites they have expelled (cp. Gen. 19 w. 2 Kgs. 21.9).

Chronologically/historically, however, chs. 17–21's events seem to be among the book's earliest. A Levite referred to as 'Jonathan the son of Gershom, the son of Moses' is alive at the time of chs. 17–18's events, while, at the time of chs. 19–21's events, Aaron's son Phinehas—who is also involved in the incidents at the close of the book of Joshua (Josh. 22–24)—seems to be the high-priest. And, in the absence of any reason to think otherwise, it seems natural to view these two men as grandsons of Moses and Aaron (rather than more distant descendants).

In terms of their chronology, then, I am inclined to assign chs. 17–21's events to the start of the period of the Judges. More specifically, I am inclined to assign them to the period described in 2.10, over the course of which Joshua's fellow elders are replaced by a new generation. Between 50 and 70 years after the deaths of Moses and Aaron (i.e., in 1356–1336 BC), Moses and Aaron's grandsons could plausibly have been active and important figures in Israel's priesthood (cp. 2.10).⁴⁶ And the context of chs. 17–18's events is a good fit with the early years of the Judges. The Danites have failed to take possession of their allotted territory (1.34) and have begun to look for easier-to-acquire territories elsewhere (cp. 18.1 w. Josh. 19.40–48), which sets up the disastrous events to follow.

45. They may also, in part, be intended to portray its cause, namely a failed priesthood.

46. Given their refrain of the phrase 'there was no king in Israel' (17.6, 18.1, 19.1, 21.25), it would make sense for the events of chs. 17–21 to share a common timeframe. The phrase 'there was no king in Israel' could even be intended to describe precisely the events of 2.10, i.e., the period after Joshua has passed away yet before judges have arisen in Israel. Indeed, the distinction between a 'king' and a 'judge' does not seem to be as radical as it is often made out. The judge Abimelech, for instance, is said to 'reign' (מָלַךְ) over Israel (Judg. 9.6, 8, etc.), while king Saul is said to 'judge' (שָׁפַט) (cp. 1 Sam. 8.5, 6, etc.).

In chronological terms, therefore, the book of Judges ends at the same 'place' as it begins, which seems an apt metaphor for its overall trajectory (or lack thereof). For 400 long years, Israel go round and round in circles and end up (at best) back where they started.

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