WHEN DID JERUSALEM FALL?

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The Babylonian records describing the destruction of Jerusalem by the army of Nebuchadnezzar have not been found. As a consequence, all dates for that event must be derived from the scriptural record, as tied to the last events prior to the destruction that are described in the Babylonian archives. These are the Battle of Carchemish in 605 BC and the initial capture of the city and its ruler Jehoiachin in the spring of 597 BC.¹ The time between the earlier of these two events and the final destruction of Jerusalem was less than twenty years. Since the period is fairly well documented in the Scriptures, it might be expected that it would not be difficult to establish the year in which the city was destroyed and the Babylonian Exile began.

Such, however, has not been the case. Although the Scriptures state that the end came in the fourth month of the eleventh year of Zedekiah, scholars are divided on whether this refers to 586 BC or 587 BC. Jeremy Hughes listed eleven scholars who preferred the first date and eleven who preferred the second.² Edwin Thiele was among those preferring 586, and this seems to be the date most widely used in the popular literature. However, to Hughes's list of those favoring 587 should be added the names of Donald Wiseman and Kenneth Kitchen.³

The present study offers no new insight into the Babylonian records that established the last fixed dates before the fall of Jerusalem. Neither does it offer any significant new exegesis of the individual texts that bear on the problem. If the reader cares to skip the analysis and jump forward to the conclusions at the end of the article, he will see that the deductions there use the same principles of Nisan versus Tishri starting months and accession versus non-accession counting that were laid out by Coucke and Thiele, and which all others since them have had to use if they were to construct a reasonable chronology for the kings of Judah and Israel.

¹ Edwin R. Thiele, *The Mysterious Numbers of the Hebrew Kings* (3d ed.; Grand Rapids: Zondervan, 1983) 186. To Thiele must be given the credit for establishing the basic principles that should be understood before any chronology based on the Hebrew Scriptures can be constructed. Thiele in turn gave credit (p. 59 n.) to the work of V. Coucke who, unknown to Thiele, had worked out most of the same principles before him, but whose application of those principles led to some what different results than those derived by Thiele. The present paper addresses the problem: chronologists can start with approximately the same principles but arrive at differing results.

² Jeremy Hughes, Secrets of the Times (Sheffield: Sheffield Academic Press, 1990) 229 n.
³ NBD 217.

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The main contribution of the present paper is in a different area. It introduces analytical methods from a field that might seem to have little to do with matters of history or biblical interpretation. What is offered here is a means of analyzing and organizing complex sets of ideas that are related to each other in such a way that the assumptions made for one idea have consequences for the other ideas in the set. Although the application of this methodology will be new to the reader, he will find it is built on sound principles of logic, and the results it produces bring forth harmony where there had been confusion. It will also be demonstrated that this confusion arose not so much from the data itself as it did from approaches that imposed various presuppositions on the interpretation of the data.

I. SIFTING OUT WRONG PRESUPPOSITIONS

After suitable contacts were found linking Hebrew history to the fixed dates of the Assyrian and Babylonian empires, the greatest problem remaining was to determine the methods used by the authors who gave us the chronological data in the Scriptures. What did these authors mean when they wrote, "In the Xth year of Y king of Judah, Z became king over Israel, and he reigned W years?" Presuppositions about the method of the author will affect the interpretation of every part of such a sentence: Was the Xth year of king Y measured from his sole reign, or from his coregency? Was the year measured in an accession (non-inclusive) or non-accession (inclusive) sense? Were the years considered to start with Nisan in the spring or Tishri in the fall? All these questions apply to the second half of this hypothetical verse as well, along with the additional complication: Did the scribe apply the same methods to the king of Judah in the first part of the verse that he applied to the king of Israel in the second part of the verse, or did he apply the current method used in Judah to the first half of the verse and the current method used in Israel to the second half of the verse?

The possibilities are multiplicative. The first step toward a solution must be to eliminate as many alternatives as possible, thereby reducing the number of combinations to something manageable. Examples of this would be to show that no coregency was possible because king X killed his predecessor, or to demonstrate that the use of non-accession years is inconsistent with some synchronism.

Having done the preliminary reduction of the number of possible presuppositions, there will remain some that need constant re-examination, given the well-demonstrated fact that the two kingdoms changed their reckoning methods at least once during their existence. The usual situation is that an initial sifting can reduce the questions that must be asked regarding a particular writer or a particular period of the monarchies to just three, which are: (1) Does this writer start the year in Tishri or Nisan? (2) Does he use accession or non-accession years? and (3) Does he apply the same method to the other kingdom (whether it be Israel or Babylon)? With these three questions there will generally be eight possible combinations. A major problem in previous studies has been the failure to explore all eight or more possibilities before launching on the construction of a chronology. This factor may be demonstrated by a phenomenon that is seen repeatedly: A scholar makes a presupposition that one out of the eight possibilities is correct and he then constructs a chronology that fits some of the data but not all. To explain the data that does not fit his schema, he feels justified in saying that this part of the data is in error. The real error may not be with the data, however. It may just as well be with the suppositions used (the hypotheses) that were imposed in interpreting the data. In scientific studies, when a hypothesis contradicts the data, it is customary to reject the hypothesis, not the data.

The practice of stating all hypotheses (presuppositions) used in a scholar's approach has not been sufficiently followed in most studies of this nature. An example was Edwin Thiele's assumption that Solomon died in the last half of the year that began in Nisan of 931 BC, and not in the first half of that year. This was assumed in Thiele's writing⁴ but never explicitly stated, so we are justified in asking why the assumption was not stated so it could be examined. The other problem is the failure of authors to consider all the possibilities. In the case of Thiele, his failure to consider that Solomon may have died in the first half of the year which began in Nisan of 931, which is entirely possible based on the text of 1 and 2 Kings, led to an error of one year in Thiele's dates for all Judean kings from Solomon through Ahaziah.⁵

There is a method employed in Systems Analysis that addresses both these problems—the failure to state all assumptions explicitly, and the failure to consider all possible combinations of assumptions. Called Decision Analysis, it is based on building tables called Decision Tables that show, in the top part, all possible combinations of assumptions. The bottom part shows the consequences of the assumptions. When the consequences in the bottom part conflict with the data, then we may assume that either (a) the assumptions in the top part of the table are to be rejected, or (b) the data is in error. Consequence (b) should be the last resort.

The present work employs Decision Tables as a kind of sieve. Lest some misunderstand, it should be plainly stated that the tables do not sift the data. They sift out wrong sets of hypotheses, using the data to do the sifting. When used properly, these tables also force all presuppositions to be stated explicitly. They then show which sets of presuppositions satisfy the data and which do not. A possible outcome is that no set of reasonable presuppositions satisfies all the data; this is the outcome that should generally be expected by those who maintain that the authors of Scripture lived many years after

⁵ Rodger Young, "When Did Solomon Die?" *JETS* 46 (2003) 589–603. In the second edition of *Mysterious Numbers*, Thiele's error ended with Jehoshaphat and did not extend to Jehoram and Ahaziah. The third edition adjusted the beginning of Jehoshaphat's coregency so that it would coincide with Asa's thirty-ninth year, but this led to ending the reign of Ahaziah one year after his successor, Athaliah, usurped the office—an error which is glossed over in Thiele's text.

⁴ Thiele, Mysterious Numbers 80.

the events described, and these authors were not able to write down accurately things as they actually happened.

Decision Tables, then, offer a completely neutral way of sifting through the presuppositions that are brought into chronological studies and showing which do not fit the data. If one or more of the sets of presuppositions fits the data, then any such set of presuppositions should be further investigated to see whether it fits all the other data for the period or author being studied. If none of the presuppositions fits the data, then (assuming the presuppositions are reasonable and complete to start with) we are justified in questioning or emending the data. But the data should not be rejected unless the researcher has demonstrated that no other reasonable combination of assumptions can offer a solution, and it is in this area that there has been great neglect in the past. The data should not be declared in error if the painstaking work of exploring all alternative sets of hypotheses has not been done.

II. CHRONOLOGY ARITHMETIC

Since the ancient Near East did not follow the later Roman custom of starting the year on the first of January, there is often some awkwardness in expressing the year in a which a biblical event happened. This is especially obvious when one desires to construct a time line showing, for example, the reign lengths of several kings. The common method of displaying such time lines for the kings of Judah and Israel has been to construct what might be called a ladder chart. This chart will generally show two ladders side by side, but with their rungs displaced. The rungs represent the start of the year in each kingdom: Tishri in the fall for Judah, and Nisan in the spring for Israel. A third ladder, showing years starting January 1 according to the modern calendar, is often added.

In the final edition of his monumental study on the chronology of the Hebrew kings, Edwin Thiele abandoned the ladder charts of his previous editions, replacing them with horizontal charts which might be called brick walls. The design principles are the same. Although these diagrams have their place, it can be difficult to determine exact dates from them. For the present study, it was found more convenient to show reign lengths and overlapping time periods by the use of simple formulas. The symbolism of these formulas is similar to that used by previous authors, but it will be made somewhat more formal by stating the following principles:

- (1) When a text expresses a year based on the Nisan calendar, the year will be represented as the BC year in which Nisan 1 of that year occurs, followed by a small "n." Thus 931n refers to the year that began in Nisan of 931 BC and ended the day before Nisan 1 of 930 BC.
- (2) Similarly for a Tishri year: 931t refers to the year that began on Tishri 1 of 931 BC and ended the day before Tishri 1 of 930 BC.
- (3) Frequently, we need to deal with the overlap of a Nisan year from Israel or Babylon with a Tishri year from Judah. The overlap of 931n

and 931t may be written as 931t/930n, which means the six-month period starting with Tishri 1, 931 BC, and ending the day before Nisan 1, 930 BC.

(4) For reign lengths, if we know that a certain king started in 925t and reigned ten years, we can express his final year as 925t - 10 = 915t. If we start with a Tishri year, we shall always end up with a Tishri year. This assumes that we know the scribe used accession reckoning. If we know that he used non-accession years, we would calculate the last of the king's "ten" years as follows: 925t - 9 (acc) = 916t, where the optional "acc" in parentheses shows that we have not made a typographical error, but have converted the number to its accession equivalent to do the subtraction.

With these conventions, we shall be able to avoid ladder charts and brick walls. The proper use of "chronology arithmetic" will also make visible any of the half-year or full-year inaccuracies that can be hidden in the customary diagrams.⁶

III. THE CHRONOLOGY OF EZEKIEL

The three biblical sources used in calculating the date of the fall of Jerusalem are the last two chapters of 2 Kings and the books of Ezekiel and Jeremiah.⁷ We shall examine each of these sources in turn, without making any assumption that the counting methods used in one source must necessarily be used in the other sources.

Ezekiel was carried captive to Babylon with king Jehoiachin. The prophet showed a genuine concern to date the significant events he lived through, and he measured these dates in terms of the captivity (לְגָלוּת) of Jehoiachin. The time that Jehoiachin was initially taken captive can be dated exactly, from the Babylonian Chronicle, to Adar 2, 597 BC.⁸ Adar was the month before Nisan, so by Nisan reckoning the final year of Jehoiachin would be 598n. By Tishri reckoning it would be 598t. There is, however, a question about whether Ezekiel reckoned the beginning of the captivity to be measured from Adar 597, when Jehoiachin was made a prisoner, or from some time a month or so later, after Nisan 1, when he may have begun the trip to Babylon, in which case the years of captivity would start with 597n for Nisan reckoning, but still 598t for Tishri reckoning. We shall not make any presuppositions about this, but shall put it into a decision table along with two other possible hypotheses: whether Ezekiel used Tishri or Nisan years, and whether the city fell in 587 BC or 586 BC. These hypotheses will be tested by

 $^{^{6}}$ An example of such an inaccuracy is the contradiction between the brick wall diagram in *Mysterious Numbers* 101, which has both Ahaziah and Athaliah starting in 841t, as contrasted with Thiele's statement on page 104 that Athaliah ended a six-year (accession) reign in 835n/835t. This would place her starting year as 836t + 6 = 842t.

 $^{^{7}}$ The verses relating to this issue in the last chapter of 2 Chronicles are consistent with the last chapters of 2 Kings and will not be treated separately.

⁸ Thiele, Mysterious Numbers 186.

the data found in Ezek 40:1, which synchronizes the twenty-fifth year of captivity with the fourteenth year after the city was conquered. In this verse, the Hebrew preposition ל, representing "of" in the phrase "of the captivity," implies non-accession reckoning.⁹ That אָהָר representing the "after" in "after the city was taken," implies accession reckoning can be shown by comparing the "after" of Gen 9:28 with Gen 7:11, 8:13, and 9:29.

Possible interpretation of dates in Ezek 40:1	1	2	3	4
Does Ezekiel use Tishri or Nisan years?	Т	Т	Т	Т
Captivity started before or after Nisan 1, 597?	before	before	after	after
City fell in (BC)	587	586	587	586
A. 25th year of captivity (implies non-acc. reckoning) B. 14 years <i>after</i> city fell (implies acc. reckoning) C. Overlap of A and B	598t - 24 = 574t = 574t = 574t = 574t = 574t = 574t	598t - 24 = 574t 587t - 14 = 573t none	598t - 24 = 574t = 574t = 574t = 574t = 574t = 574t	598t - 24 = 574t 587t - 14 = 573t none

Table 1a. Options for Ezek 40:1 assuming Tishri years

Possible interpretation of dates in Ezek 40:1	5	6	7	8
Does Ezekiel use Tishri or Nisan years?	Ν	Ν	Ν	Ν
Captivity started before or after Nisan 1, 597?	before	before	after	after
City fell in (BC)	587	586	587	586
A. 25th year <i>of</i> captivity (implies non-acc. reckoning)	598n - 24 = 574n	598n - 24 = 574n	597n - 24 $= 573n$	597n – 24 = 573n
B. 14 years <i>after</i> city fell (implies acc. reckoning)	587n – 14 = 573n	586n – 14 = 572n	$\begin{array}{l} 587n-14\\ = 573n \end{array}$	586n – 14 = 572n
C. Overlap of A and B	none	none	573n	none

Table 1b. Options for Ezek 40:1 assuming Nisan years

To use these tables, start at the top of one of the columns (also called rules) numbered 1 through 8. Read down through the three assumptions in the left part of the table. The values for those assumptions will be in the top part of the column, and their consequences will be in the lower part, below

⁹ Young, "When Did Solomon Die?" 602.

the heavy line. For the present table, row C must show an overlap if the assumptions in the column are to be tentatively accepted.

No scenario (set of hypotheses) works which assumes that the city fell in 586 BC. Scenarios which work assuming the city fell in 587 BC are Rules (columns) 1 and 3 (Tishri years, captivity began before or after Nisan 1, 597) and Rule 7 (Nisan years, the captivity beginning after Nisan 1, 597).¹⁰

The next step is to examine the three remaining scenarios in the light of Ezek 33:21. Ezekiel received news of the fall of the city in the twelfth year of exile, in the tenth month. Is this information in harmony with each of the three rules?

Rule 1. The twelfth year of captivity was 598t - 11 (acc) = 587t. The tenth month of 587t (month numbers are always measured from Nisan) was Tebeth (approximately January) 586, which was six months after the fall of the city in the fourth month (Tammuz/July) of 587, according to the hypotheses of Rule 1. This was a reasonable time for the news to reach Babylon.

Rule 3. The twelfth year of captivity was again 587t, which yields the same six months until January 586 as for Rule 1.

Rule 7. The twelfth year of captivity was 597n - 11 (acc) = 586n. The tenth month of that year would be January, 585. According to the 587 BC date for the fall of the city under Rule 7, this would be eighteen months before the news reached the exiles in Babylon, which is not reasonable. We therefore reject the hypotheses of Rule 7, and with them the last chance for the idea that Ezekiel used Nisan reckoning for the years of captivity.

So the starting place for all of Ezekiel's references to the years of the captivity must be taken as 598t, and he used Tishri years. The synchronisms from Ezekiel, a contemporary of the events described, establish that Jerusalem fell in the summer of 587 BC. The following paragraph will demonstrate that the remaining chronological data in Ezekiel is consistent with these conclusions.

In a companion article,¹¹ it was shown that the Talmud recorded the tradition that the sixteenth Jubilee year was in the eighteenth year of Josiah (*b. Meg.* 14b), and the seventeenth and last Jubilee was announced on the Day of Atonement specified in Ezek 40:1 (*b. Arak.* 12a). The eighteenth of Josiah, as measured from his starting year of 641t (see later in this article), began in Tishri of 623 BC. Forty-nine years later¹² was Tishri, 574, the date

 10 Thiele assumed that Ezekiel used Nisan years, that the captivity was measured from Nisan of 597, and that the city fell in 586 BC (*Mysterious Numbers* 187). This corresponds to Rule 8 of Table 1b. He was not careful to state either when the "fourteen years after" or the "twenty-fifth year of" ended; if he had written this out carefully in some fashion similar to that of the chronology arithmetic used in this article he would have seen that for his hypotheses these two synchronisms contradict each other.

¹¹ Young, "When Did Solomon Die?" 600.

¹² The Jubilee cycle was forty-nine years, not fifty years as is often assumed, because the fiftieth or Jubilee year was counted as the first year of the next cycle. This kept the seven-year sabbath cycles in phase with the Jubilees. The cycle length was taken as forty-nine years in the apocalyptic *Book of Jubilees*, which is usually dated to the second century BC. The Samaritans observed the Jubilees as a forty-nine year cycle—see A. Neubauer, *Chronique Samairitaine* (1873) 3, 8 ff., cited in *Encyclopedia Judaica* (Jerusalem: Keter, 1972) 14.579.

we have established above for Ezek 40:1, showing that this date is in agreement with the Talmud's remembrance of when the seventeenth Jubilee was announced. Consistent with this is the phrase "thirtieth year" in Ezek 1:1, meaning the thirtieth year from the beginning of the sixteenth Jubilee cycle that was announced in Tishri of 623 BC. The date is 623t - 29 (acc) = 594t, which is the fifth year of the exile of Jehoiachin, as specified in Ezek 1:2.

This concludes the study of synchronisms in Ezekiel. It has been shown that the chronology of Ezekiel is internally consistent, and it is consistent with two references external to the Bible which are independent of each other, namely the Talmud and the Babylonian Tablets in the British Museum that provide the date when Jehoiachin was taken captive. The data itself, as taken from Ezekiel and tied to the anchor-date for Jehoiachin deduced from the Babylonian Tablets, has driven all the conclusions established to this point, namely that Ezekiel used Tishri years for reckoning and that Jerusalem fell in 587 BC.¹³ The harmony of this scheme with all the other chronological data in Ezekiel is shown in Table 2.

Table 2.	All synchronisms in Ezekiel, showing that his use of Tishri
years and	l his measuring from the beginning of captivity in 598t is in
harmon	y with dates for all events internal to or external to Ezekiel

Ezekiel chapter & verse	First event	Synchronized with	Overlap of columns 2 and 3
1:1–2	5th year of exile = 598t – 4 (acc) = 594t; 4th month is Tammuz/July 593 BC	30th year of a Jubilee cycle announced in 623t, 18th of Josiah, according to Talmud; 623t – 29 (acc) = 594t	Tammuz/July 593 BC
24:1-2	9th year = 598t - 8 (acc) = 590t; 10th month = Tebeth/January 589 BC	Beginning of siege of Jerusalem—see also Jer 39:1	Tebeth/January 589 BC
33:21	12th year = 598t - 11 (acc) = 587t; 10th month = Tebeth/January 586 BC	Man arrives reporting destruction of Jerusalem six months earlier	Tebeth/January 586 BC
40:1	25th year = 598t - 24 (acc) = 574t; "beginning of year" (<i>rosh</i> <i>hashanah</i>), 10th day = Day of Atonement, Tishri/October 574 BC	14th year after city fell; 588t - 14 = 574t; also acc. to Talmud beginning of 17th Jubilee; seen to be 623t - 49 = 574t compared to 18th of Josiah (623t)	Day of Atonement, Tishri/October 574 BC

¹³ In contrast to this method of letting the data test our hypotheses is any approach that starts with presuppositions that the data is not allowed to contradict. A fairly recent example of such an approach is Jeremy Hughes's study of OT chronology (Hughes, *Secrets*). Hughes's central thesis was that the numbers given in Kings and Chronicles resulted from an artificial imposition of certain numerical schemes into the text. In Hughes's view, the chronological data of the Masoretic

IV. THE CHRONOLOGY OF 2 KINGS 24 AND 25

We can establish the kind of dating used in the last two chapters of 2 Kings by looking at a pair of crucial synchronisms in 2 Kings 25. These two synchronisms will be measured against two dates derived from the Ezekiel data. The first date is taken from Ezek 24:1, where it is said that the final siege of Jerusalem began in the tenth month of the "ninth year." Here, as everywhere else in Ezekiel, years are measured from the 598t official beginning date for the captivity of Jehoiachin, and the years are Tishri years, yielding 598t - 8 (acc) = 590t for the year the siege began. The tenth month of that year corresponds roughly to January 589 BC. The second date from Ezekiel is the familiar 587n/587t for the fall of Jerusalem, as derived from Ezek 40:1.

Now compare these fixed dates with the dates for the same events as given in 2 Kings 25. We are not bringing any presuppositions to the Kings data regarding whether the author there used Nisan or Tishri years, accession or non-accession reckoning. If the data is found to be internally consistent in 2 Kings, and if it harmonizes with the data given by Jeremiah and Ezekiel, it will not be because any author, ancient or modern, imposed his scheme on the data and was clever enough to make that scheme harmonize in all biblical books involved. If harmony is demonstrated without altering the received text, it will only be because the original data is authentic in all the biblical authors concerned, and because the Masoretic and prior scribal traditions correctly transmitted to us the authentic synchronisms and reign lengths.

Let us construct a decision table which shows the various options that might be employed in 2 Kings 25. The options are Nisan or Tishri years, and accession or non-accession years for synchronisms. The texts to be used are 2 Kgs 25:1, which says that the final siege of Jerusalem began in the ninth year, tenth month of Zedekiah, and 2 Kgs 25:2–3, which says that the city

text is incongruous with whatever the "real" chronology was for the period, and he attempted to reconstruct this "real" chronology by imposing patterns on the biblical text that were first laid out by Julius Wellhausen before the advent of modern archaeology. Wellhausen thought that the 480 years of 1 Kgs 6:1 measuring the time from the exodus to the start of Solomon's Temple was an artificial number. He then tried to fit reign lengths from the foundation of the Temple to the destruction of Jerusalem into a 430-year period by not allowing any coregencies for the kings of Judah, even though more modern research has shown the actual time lapse to be 380 years. To these artificial 430 years he added a supposed fifty years of Babylonian captivity to come up with another 480-year figure, thus proving to his own satisfaction that all Judean reign lengths were artificially manipulated to fit into a 480-year pattern. It is somewhat surprising that Hughes (Secrets 48) accepts this presupposition of Wellhausen, and with it the discarding of all coregencies, even those that are explicitly mentioned in Scripture such as that of David with Solomon and Uzziah with Jotham. It should be expected that anyone so heavily laden with the necessity of maintaining ideas brought forth by Julius Wellhausen some 125 years ago would not be very diligent in making sense of the biblical data as it exists. Although each of us has our own philosophical presuppositions, we need to be careful about forcing preconceived prejudices on the data; by doing so we end up producing our own brand of biblical numerology.

fell in his eleventh year, fourth month. The different ways these events might be measured will be checked against the dates derived above from Ezekiel for the two events, which are 590t/589n and 587n/587t, respectively. Unfortunately there is one other complication, which increases the number of possibilities from four to eight. That complication is whether the source used in 2 Kings considered the reign of Zedekiah to start in Adar or Nisan of 597. Normally we would assume that the reign of Jehoiachin ended when he was captured on Adar 2, 597, and Zedekiah's reign would begin then, making Zedekiah's first official year 598n instead of the 597n for Nisan reckoning if he began in Nisan of 597. The main reason we need to consider the possibility of starting Zedekiah in Nisan is because it was advocated by Thiele, even though part of his justification was a wrong interpretation of Ezek 40:1. The table then will have three variables in the top part, making for eight columns that we shall split into two tables.¹⁴

Table 3a.	Determining a	reckoning	method	used	in
2 Kgs	25:1-2; Zedek	riah starts	Adar 5 S	97	

Table to determine measuring method of author in 2 Kings 25	1	2	3	4
Did Zedekiah start in Adar or Nisan of 597?	Adar	Adar	Adar	Adar
Did author use Tishri or Nisan years?	Т	Т	Ν	Ν
Did he use accession or non- accession counting?	acc.	non-acc.	acc.	non-acc.
A. 9th year of Zedekiah, from 2 Kgs 25:1	598t – 9 = 589t	598t – 8 = 590t	598n – 9 = 589n	598n – 8 = 590n
B. 11th year of Zedekiah, from 2 Kgs 25:2–3	598t – 11 = 587t	598t - 10 = 588t	598n – 11 = 587n	598n – 10 = 588n
C. Overlap of A with 590t/ 589n, the time for the start of the siege from Ezek 24:1	none	590t/ 589n	none	590t/ 589n
D. Overlap of B with 587n/ 587t, date of fall of Jerusalem derived from Ezek 40:1	none	587n/ 587t	587n/ 587t	none

The only sets of conditions which allow an overlap in both Row C and Row D are the sets specified by Rules 2 and 6. Both these rules use Tishri reckoning, so that the question whether Zedekiah began in Adar or Nisan of 597 will not affect the numbering of years in 2 Kings. The conclusion is that

 14 A reader familiar with Decision Analysis might observe that there is a way to simplify the tables, but it is easier to present all eight columns than it is to explain the simplification.

Table to determine				
measuring method of author in 2 Kings 25	5	6	7	8
Did Zedekiah start in Adar or Nisan of 597?	Nisan	Nisan	Nisan	Nisan
Did author use Tishri or Nisan years?	Т	Т	Ν	Ν
Did he use accession or non- accession counting?	acc.	non-acc.	acc.	non-acc.
A. 9th year of Zedekiah, from	598t - 9	598t – 8	597n – 9	597n – 8
2 Kgs 25:1	= 589t	= 590t	= 588n	= 589n
B. 11th year of Zedekiah,	598t - 11	598t - 10	597n - 11	597n - 10
from 2 Kgs 25:2–3	= 587t	= 588t	= 586n	= 587n
C. Overlap of A with 590t/	none	590t/	none	none
589n, the time for the start of		589n		
the siege from Ezek 24:1				
D. Overlap of B with 587n/	none	587n/	none	587n/
587t, date of fall of Jerusalem derived from Ezek 40:1		587t		587t

Table 3b. Determining reckoning method used in 2 Kgs 25:1–2;Zedekiah starts Nisan 597

2 Kgs 25:1–2 uses Tishri years and non-accession counting for the reign of Zedekiah, and his first official year was 598t. Let us apply this information to the other synchronisms in the final two chapters of 2 Kings to see if these texts are consistent with this method.

In 2 Kgs 25:8, the fifth month of 587 BC is said to be in the nineteenth year of Nebuchadnezzar. Nebuchadnezzar's accession year was 605n,¹⁵ or 606t for Tishri reckoning, and the fifth month of 587 BC can only be in his nineteenth year if the nineteen years represent a non-accession span of time. Are Tishri or Nisan years employed? Either one works with non-accession counting. By Tishri years, Nebuchadnezzar's nineteenth year was 606t - 18 (acc) = 588t, and by Nisan years it was 605n - 18 (acc) = 587n, both of which contain the fifth month of 587 BC. To resolve this issue of Nisan versus Tishri we examine 2 Kgs 24:12, where it is stated that Jehoiachin was taken captive in the eighth year of the reign of Nebuchadnezzar's BC. By Nisan/non-accession reckoning, the eighth year of Nebuchadnezzar's

¹⁵ Thiele, Mysterious Numbers 185.

¹⁶ The phrase "took him captive" (וַיָּקָת אָתוֹ) referring to the capture of Jehoiachin in Nebuchadnezzar's eighth year, is more literally translated simply "and took him." This cannot refer to any departure for Babylon after Nisan 1 of 597, because that would be in the ninth (non-accession) year of Nebuchadnezzar by either Tishri or Nisan reckoning.

reign would be 605n - 7 (acc) = 598n, which contains Adar of 597. By Tishri/ non-accession reckoning, Nebuchadnezzar's eighth year was 606t - 7 (acc) = 599t, which is too early to contain Adar 597. We conclude that, for Nebuchadnezzar, the texts of 2 Kings 24 and 25 use Nisan years and non-accession reckoning.¹⁷

The final synchronism in these chapters is 2 Kgs 25:27, which says that Jehoiachin, in the thirty-seventh year of his captivity, was released from prison by Evil-Merodach in the twelfth month of the year that he became king. The Babylonian Tablets establish this date as April 2, 561, shortly before Evil-Merodach's first full year that began in Nisan of 561. The thirty-seventh year of Jehoiachin's exile was 598t - 36 (acc) = 562t, which is consistent with the date given in the Babylonian Tablets.

synchronisms are in harmony with the author's Tishri/non-accession method for Judah and Nisan/non-accession method for Babylon 2Kings chapter Overlap of and verse First event. Synchronized with columns 2 and 3

Table 4. Explanation of synchronisms in 2 Kings 24–25, showing that all

2 Kings chapter and verse	First event	Synchronized with	Overlap of columns 2 and 3
24:12	End of reign of Jehoiachin, Adar 597 by Babylonian Chronicles = 598t/597n	Eighth year of Nebuchadnezzar = 605n - 7 (acc) = 598n	598t/597n (Adar 597)
25:1	Final siege of Jerusalem began in 9th of Zedekiah, 598t – 8 (acc) = 590t; 10th month = Tebeth/January 589 BC	In Ezek 24:1–2, siege began in 9th year of captivity: 598t – 8 (acc) = 590t; 10th month = Tebeth/ January 589 BC	Tebeth/January 589 BC
25:2–3	City fell in 11th year of Zedekiah, 4th month = 598t - 10 (acc) = 588t; 4th month = Tammuz/ July 587 BC	As determined from Ezek 40:1, this was Tammuz 587 BC	Tammuz/July 587 вс
25:8–9	Temple burned in 11th year of Zedekiah, 5th month = Ab/August 587 BC	19th of Nebuchadnezzar = 605n – 18 (acc) = 587n	Ab/August 587 BC
25:27	37th of exile of Jehoiachin = 598t - 36 (acc) = 562t. 12th month, 27th day = April 2, 561 BC	Year that Evil-Merodach became king = 562n	Аргіl 2, 561 вс

 17 The practice of imposing the counting method used for the kings of Judah on the reign lengths of another kingdom while recognizing the starting month of the other kingdom is identical to what Thiele assumed happened during the early years of the divided monarchy (*Mysterious Numbers* 25).

V. THE CHRONOLOGY OF JEREMIAH

As with the investigation of chronological references in Ezekiel and 2 Kings, we shall not approach the study of Jeremiah with any presuppositions about Nisan versus Tishri years or accession versus non-accession reckoning. We might expect that Jeremiah used Tishri years and non-accession reckoning for the last years of the Judean monarchy, consistent with 2 Kings and Ezekiel. Nevertheless, such a presupposition will not be allowed to determine the results. The data itself will be used to decide what method Jeremiah used in recording the events that he lived through.

Let us examine Jeremiah's synchronisms to see what the data tells us. Two texts will be used for the initial sifting. The first is Jer 1:3, which says that the inhabitants of Jerusalem were taken to Babylon in the fifth month of the eleventh year of Zedekiah. If this is to be consistent with 2 Kings and Ezekiel, this date must come out to be in 587n/587t. The second reference is Jer 46:2, which says that the Battle of Carchemish occurred in the fourth year of Jehoiakim. From the Babylonian Chronicles, it is known that Jehoiakim was installed by Necho in Tishri of 609, and the Battle of Carchemish occurred in the 605n/605t time frame.¹⁸

Table to determine measuring method of				
Jeremiah in Jer 1:3 and 46:2	1	2	3	4
Did Jeremiah use Tishri or Nisan years?	Т	Т	Ν	Ν
Accession or non-accession reckoning?	acc.	non-acc.	acc.	non-acc.
A. 11th year of Zedekiah— fall of city (Jer 1:3)	598t - 11 = 587t	598t - 10 = 588t	598n – 11 = 587n	598n - 10 = 588n
B. Fourth year of Jehoiakim, according to Jer 46:2—Battle of Carchemish	609t - 4 $= 605t$	609t – 3 = 606t	609n – 4 = 605n	609n - 3 = 606n
C. Overlap of A with 587n/ 587t, fall of Jerusalem according to Ezekiel and 2 Kings	none	587n/ 587t	587n/ 587t	none
D. Overlap of B with Battle of Carchemish, 605n/605t from Babylonian Chronicle	none	605n/ 605t	605n/ 605t	none

Table 5. Determining reckoning method used in Jer 1:3 and 46:2

¹⁸ Thiele, Mysterious Numbers 182, 184–85.

This simple table demonstrates that there are two reckoning methods that are consistent with the synchronisms in Jer 1:3 and 46:2. Rule 2 assumes Tishri years and non-accession reckoning. Rule 3 assumes Nisan years and accession reckoning. We can use another text to decide between these two rules. That text is Jer 32:1, which says that an event in the tenth year of Zedekiah was also in the eighteenth year of Nebuchadnezzar. By Rule 3 (Nisan, accession years), the tenth of Zedekiah was 598n - 10 = 588n. The eighteenth of Nebuchadnezzar, by the same Nisan/accession reckoning, was 605n - 18 = 587n, which has no overlap with 588n. We would have to ascribe non-accession reckoning or Tishri years to Nebuchadnezzar's reign in order to get these figures to harmonize, and Jeremiah would not use nonaccession reckoning or Tishri years for Babylon if he used accession reckoning and Nisan years for Judah (Babylonian scribes used accession years starting in Nisan). On this basis we reject Rule 3. (Note: if a similar table were constructed using Thiele's Nisan 597 starting month for Zedekiah, it would show that the only valid option is for Tishri, non-accession years, similar to the results deduced from Table 5.)

By Rule 2, the tenth of Zedekiah was 598t - 9 (acc) = 589t. If accession years are used for Nebuchadnezzar, this has no overlap with that king's eighteenth year for Tishri (606t - 18 = 588t) or Nisan (605n - 18 = 587n) starting months. If non-accession years are used for Nebuchadnezzar, then there is an overlap with the required 589t by either Tishri (606t - 17 [acc] = 589t) or Nisan (605n - 17 [acc] = 588n) reckoning. The same result will be found if we examine the synchronism of Nebuchadnezzar with Jehoiachin (see below). Both Tishri and Nisan years work satisfactorily for Nebuchadnezzar, but only non-accession counting is acceptable. Although we do not have enough information to decide between Nisan and Tishri years, we might prefer to think that Jeremiah used Nisan for Nebuchadnezzar, as is done in 2 Kings.

Having established the methods used by the prophet for these verses, this information will be applied to the remaining synchronisms in Jeremiah to see if there are any inconsistencies.

In Jer 25:1, the fourth year of Jehoiakim coincided with the "first year" (הְשָׁנָה הָראשׁנִית) of Nebuchadnezzar. Thiele, following Tadmor,¹⁹ pointed out that הַשָּׁנָה הָראשׁנִית refers not to Nebuchadnezzar's first full year, but to his accession year, in keeping with standard Babylonian accession-year counting. This was 605n by Nisan reckoning or 606t by Tishri reckoning, either of which overlaps with the fourth year of Jeremiah's Tishri, non-accession method for Jehoiakim, namely 609t - 3 (acc) = 606t. The only objection that might be raised to this synchronism is that Jeremiah, in keeping with his non-accession treatment of Nebuchadnezzar's reign in 32:1, should have written the year as something like הַשָּׁנָה אָהָת אָהָת ("in the first year") as in Dan 9:1. Jeremiah could have recorded the date in that way, but the way he chose is plain enough, and it is questionable what other method he could

¹⁹ Ibid. 162.

have used to refer unambiguously to the year in which Nebuchadnezzar came to the throne.

In Jer 25:3, the prophet counted twenty-three years from the thirteenth year of Josiah to the fourth year of Jehoiakim, 606t. The cardinal number twenty-three is given without any preposition or modifier and must be taken in an absolute (accession) sense; this puts the thirteenth year of Josiah in 606t + 23 = 629t. By Jeremiah's non-accession reckoning, Josiah's beginning year can be calculated as 629t + 12 (acc) = 641t. This date for the accession of Josiah provides the means of determining if the thirty-one years for his reign given in 2 Kgs 22:1 is an accession or non-accession figure. The Babylonian Chronicles allow the date of his death to be calculated as the fourth month of 609 BC, which was in the year 610t. This was thirty-one years after the beginning of Josiah's reign in 641t, so the reign length as given in 2 Kgs 22:1 is by accession reckoning, showing, incidentally, that somewhere between 2 Kgs 22:1 and 24:1 the counting system changed from accession to non-accession.

The phrases "In the beginning of the reign of . . ." in Jer 26:1, 27:1, and 28:1 might indicate that Jeremiah was using the technical phrase for an accession year in these places, thus conflicting with his non-accession method elsewhere. However, the actual form of the phrase used, בְּרֵאשִׁית מַמְלֶטְכוּת, does not necessarily imply recognition of an accession year as distinct from a (non-accession) first year, according to Hughes.²⁰ It is interesting, albeit somewhat puzzling, that the phrase is used in apposition to the fourth year of Zedekiah in 28:1.

A comparison of Jer 28:1 with 28:17 might suggest a problem with the idea that Jeremiah always used Tishri reckoning for Judah, but closer examination will explain the difficulty. The false prophet Hananiah had broken the yoke from Jeremiah's neck. Some time later, the Lord instructed Jeremiah to tell Hananiah, "This year you are going to die, because you have counseled rebellion against the Lord" (Jer 28:16 NASB). The next verse says that Hananiah died "in the same year in the seventh month." This might appear to be a problem for the following reason: the conflict with Hananiah began in the fifth month of the fourth year of Zedekiah (Jer 28:1). Months are always numbered as starting from Nisan, so the seventh month was Tishri. Tishri would bring in the fifth year of Zedekiah, so we could argue that Jeremiah should have said, "In the next year, the fifth of Zedekiah, in the seventh month, the prophet Hananiah died." Technically this would be correct, but it would also be very misleading, unless everyone understood that fourteen months had not passed from the fifth month of Zedekiah's fourth year to the seventh month of his fifth year, but only two months, both in 594 BC. To later readers it would look like a failed prophecy, because the death of Hananiah would appear to happen more than a year after the prophecy. Jeremiah, to avoid any misunderstanding regarding the shortness of time between the giving of the prophecy and its accomplishment, declared that the

²⁰ Hughes, Secrets 180.

accomplishment was in the same year—not the same year as measured by Zedekiah's regnal year, but the same year as measured from the giving of the prophecy. To state it otherwise would have opened the door for misunderstanding and doubt that God accomplished what he said he would do.

In Jer 39:1, the final siege of Jerusalem is said to begin in the ninth year of Zedekiah, in the tenth month. This is 598t - 8 (acc) = 590t, and the tenth month would be approximately January 589, which is in agreement with the beginning of the siege as previously determined from Ezek 24:1.

In Jer 46:2, the Battle of Carchemish is dated in the fourth year of Jehoiakim, 609t - 3 (acc) = 606t. The battle occurred in 605n/605t, which is in the latter half of the year given by Jeremiah.

The writings of Jeremiah end with chapter 51 (Jer 51:64), so his methods of dating are not automatically applicable to the contents of chapter 52. The contents of that chapter, except for verses 28 through 30, are all parallel to passages in the last two chapters of 2 Kings, so the methods already determined for these chapters in 2 Kings (Tishri, non-accession reckoning) can be applied to the corresponding verses in Jeremiah 52. Verses 28 through 30 are independent of the Book of Kings and are interesting enough to require special consideration.

Jer 52:28–30 gives the number of captives taken by Nebuchadnezzar in his seventh, eighteenth, and twenty-third years. There is one thing certain about the counting of captives—the captives themselves are in no position to do it. Every king and pharaoh must have had an official assigned to this task, so that the number of those vanguished could be recorded on a stela or in the annals glorifying the king's exploits. Thus the list of captives in Jer 52:28-30 could not have originated in a Judean record—it came from the official records of Nebuchadnezzar. The years of the monarch would therefore be the Nisan, accession years used in Babylon. This is an independent verification of the use of non-accession years when Jeremiah and the author of the last two chapters of 2 Kings referred to Nebuchadnezzar: the seventh (accession) year of Jer 52:28 corresponds to the eighth (non-accession) year of 2 Kgs 24:12, and the eighteenth (accession) year of Jer 52:29 corresponds to the nineteenth (non-accession) year of 2 Kgs 25:8. These are not mistakes, as some have assumed. They are a valuable clue that the synchronisms to Nebuchadnezzar in 2 Kings were to be taken in a non-accession sense, and this conclusion could have been reached from these texts alone without going through the more thorough analysis of the present article.

It has been shown that no synchronisms in the book of Jeremiah contradict a usage of Tishri years and non-accession reckoning for the kings of Judah throughout the prophet's writing. By determining from the data the method that the prophet actually used we have also shown that the dates given for the events in Jeremiah agree with the dates given for the same events in Ezekiel, 2 Kings, and the Babylonian Chronicle. This cannot be because we forced our system on the data; it can only be because (1) we have found the system used by Jeremiah; (2) Jeremiah used that system consistently; and (3) the Masoretes and others in the textual tradition of the received text have transmitted to us correctly all dates and reign lengths which are necessary for constructing the proper chronology of the period. If these dates and reign lengths had not been authentic, we would have expected to find a conflict within these three sources (Kings, Jeremiah, and Ezekiel) that could not be reconciled, no matter what combination of Nisan versus Tishri or accession versus non-accession was assumed.

The consistency of data in Jeremiah is shown in Table 6. The 52nd chapter is not included because it is not from the pen of Jeremiah (Jer 51:64).²¹

Table 6. All synchronisms in the writings of Jeremiah, showing thatthe Tishri/non-accession method he used for kings of Judah, and thenon-accession method for Nebuchadnezzar, are in harmony with datesfor all events internal to or external to Jeremiah

Jeremiah chapter & verse	First event	Synchronized with	Overlap of columns 2 and 3
1:3, 39:2	Zedekiah's 11th year, 598t – 10 (acc) = 588t; 4th month = Tammuz/ July 587	Fall of Jerusalem: calculated from Ezek 40:1 as Tammuz 587	Tammuz/July 587
25:1	4th of Jehoiakim = 609t - 3 (acc) = 606t	First (accession) of Nebuchadnezzar, 605n/ 605t	605n/605t
25:3	4th of Jehoiakim (606t)	23 years from 13th of Josiah = $641t - 12(acc) - 23 = 606t$	606t
32:1	10th of Zedekiah = 598t - 9 (acc) = 589t	$\begin{array}{l} 18th \ of \ Nebuchadnezzar \\ = 606t - 17 \ (acc) = 589t \\ or \ 605n - 17 \ (acc) = 588n \end{array}$	589t or 588n/ 588t
39:1	9th of Zedekiah = 598t - 8 (acc) = 590t; 10th month = Jan. 589	Final siege begins; Jan. 589 (from Ezek 24:1)	Jan. 589
46:2	4th of Jehoiakim (606t)	Battle of Carchemish, 605n/605t from Babylonian Chronicle	605n/605t

VI. CONCLUSION

This study has examined all texts in Jeremiah, Ezekiel, and 2 Kings that bear on the question, "When did Jerusalem fall?" Many side issues needed to be addressed to answer the question satisfactorily. A technique called Decision Analysis was used to ensure that all combinations of hypotheses were considered and that any hidden assumptions were brought out into the open. The analysis allowed us to rule out many presuppositions that were accepted in former studies and to replace them with presuppositions that do

 21 See the treatment of Jeremiah 52 in the text above.

not contradict the data (the received text). The conclusions from the analysis are as follows.

- (1) Jerusalem fell in the fourth month (Tammuz) of 587 BC. All sources which bear on the question—Jeremiah, Ezekiel, and 2 Kings—are consistent in dating the event in that year.
- (2) Ezekiel consistently dated events from the time that Jehoiachin was taken captive in early 597 BC. He used Tishri years in all his reckoning.
- (3) Similarly, 2 Kings 24–25 consistently used Tishri years and non-accession reckoning for Judean kings. For Nebuchadnezzar, non-accession years, starting in Nisan, were used.
- (4) In the writings of Jeremiah (which excludes the fifty-second chapter), Jeremiah consistently used Tishri years for Judah, as did Ezekiel and the source for the last chapters of 2 Kings. This is in harmony with the usage of Judah throughout the monarchic period, in contrast to Thiele's assumption that Jeremiah and Ezekiel used Nisan reckoning for Judah.²² Jeremiah used non-accession years for the kings of Judah and for Nebuchadnezzar. There is not enough information to determine if he started the years for Nebuchadnezzar in Tishri or Nisan; both assumptions fit the data.
- (5) All three sources are internally consistent and consistent with each other. There are no texts which bear on the question of the chronology of the last years of the Judean monarchy and the fall of Jerusalem which do not fit the methods described here regarding how the biblical authors treated the history of their times.
- (6) None of these conclusions was arrived at by forcing presuppositions on the data found in the scriptural text received from the Masoretes, except perhaps the presupposition that when the data conflicted with one of our hypotheses, then any reasonable set of hypotheses which did not conflict with the data was to be preferred over the set which produced conflict. This approach may be contrasted with an approach which says that when a favorite set of hypotheses conflicts with the data, the data will be declared in error and no further effort will be expended to see if another set of hypotheses offers a better explanation.
- (7) The use of Decision Tables reveals that previous studies have overlooked many possibilities that were entirely consistent with the ideas of the author of the study, but which were not explored simply because they were never thought of. This failure to explore all the possibilities has been a major problem in the studies of OT chronology, and one that has led to significant confusion in the chronologies produced. It is to be hoped that future studies will not declare that some new solution is to be preferred, or the text needs to be emended, until it is demonstrated that there are no other sets of hypotheses that better explain the data. Ignoring this practice will reduce the credibility of the study.

²² Thiele, Mysterious Numbers 180.