

Part 2: Chronological symbolism in the plates of Mormon: The Book of Mormon

2.1 Beginning the book

This first detailed examination of chronological symbolism in the plates of Mormon starts with the last major division, which is entitled “The Book of Mormon”. This examination would be incomplete, however, if it analyzed only the text of this major division. The concluding year-term and narrative-link placement patterns in these plates begin in 4 Nephi 1:48. The last number-term placement pattern commences in 4 Nephi 1:40. The final time-term placement pattern in these plates starts in 3 Nephi 2:8. Each of these patterns is an integral part of the chronological structure of these plates, which ends with the temporal-expression in Mormon 8:6. Thus, while the conclusion of the temporal-expressions in the Book of Mormon is certain, the elements of those temporal-expressions are linked structurally to elements that appear in the text before the start of the Book of Mormon. These links to the preceding books have crucial implications for the chronological symbolism associated with the personal record of Mormon₂.¹

Nevertheless, the beginning text of the Book of Mormon separates a certain group of temporal-expressions from all prior temporal-expressions in these plates. Between the title, “The Book of Mormon”, and Mormon₂’s final “Amen”, the text of his personal record includes 33 temporal-expressions. Moroni₂’s later supplements to his father’s book include a 34th temporal-expression that he appears to have been commanded by Mormon₂ to add to the record. This separation of the first 33 temporal-expressions from the much later addition of a 34th also has crucial implications for the proposed symbolism. Consequently, the beginning text of the Book of Mormon is the point where this analysis begins. The certainty of the meaning of this text is vital to the following examination.

2.1.1 A standard beginning text

When Mormon₂ composed his personal record, he apparently followed a standard pattern for identifying the start of a major division of the text. This pattern is not expressed in bullet points or a special font as a standard pattern might be identified in a modern text. Instead, the pattern is implied by the beginning texts of the complete books in the *Book of Mormon*.² The beginning texts of Mormon₂’s first two books (Lehi and Mosiah) have been lost,³ but the beginning texts of all his other major divisions are complete. Each complete major division begins with at least three of the four elements that appear to constitute the standard pattern: title, title appositive, chapter designation, and introductory declaration that includes a content synopsis, contextual statement of chronology, societal description, and verification. Only the title appositive appears to be optional, but the other elements may be woven into the text in a variety of ways.

In the printer’s manuscript text of Mormon₂’s personal record,⁴ the words most closely associated with the three existing elements of the standard pattern may be identified as follows.

¹ Mormon₂ was “a descendant of Nephi” (Mormon 1:5), an elite lineage among the Nephites. He was also “a pure descendant of Lehi” (3 Nephi 5:19), a statement that may suggest he had at least one progenitor in his ancestry who descended from one of Lehi’s other children.

² See Division 10, Part 3, “Identifying major divisions in the plates”, Section 3.5 and Table 3.M.

³ See Division 1, Part 1, Section 1.7.1.

⁴ Skousen, ed., *The Printer’s Manuscript of the Book of Mormon, Part Two*, 877 (manuscript page 413).

1. *Title*: “the Book of Mormon”
2. *Title appositive*: (none appears in the text)
3. *Chapter designation*: “Chapter – I”
4. *Introductory declaration*:
 - Content synopsis*: “a record of the things which I have both seen & heard”
 - Contextual statement of chronology*: “abot [sic] the time that Ammoron hid up the records unto the Lord ... I being about ten years of age”
 - Societal description*: “the manner of the learning of my People”
 - Verification*: “I Mormon make”

Chapter designations in the manuscripts and first (1830) printed edition of the *Book of Mormon* appear in the text after the title of each major division and elsewhere in the longer books. However, the noun *chapter* does not appear to be part of the vocabulary of any *Book of Mormon* writer. The word *chapter* seems to be an insertion in the text during the preparation of the manuscripts. According to Royal Skousen, the source of the word *chapter* in the original manuscript appears to have been Joseph Smith, who “would from time to time perceive breaks within the text. At those points ... he would tell the scribe to put the word *chapter* into the manuscript but without any numerical specification (the chapter numbers were added later, sometimes months later)”. In Skousen’s reconstruction of the earliest text of the *Book of Mormon* (the “Yale text”), these assumed “breaks within the text” are indicated by a special symbol, rather than the word *chapter*.⁵ This method of reproducing the text suggests that each of the assumed “breaks within the text” may have been a special symbol rather than a “break”.

2.1.2 The copied text of the original manuscript

The reason for relying above on the diction of the printer’s manuscript is that the original manuscript text of the title, chapter designation, and introductory declaration has been lost. The extant original manuscript includes only “about 25 percent of the current text” of the *Book of Mormon*. The remainder of the original manuscript was destroyed by water and mold between 1841 and 1882, while the manuscript sat in the cornerstone of the Nauvoo House, a hotel in Nauvoo, Illinois. Based on the compositor’s marks on the extant portions of the original manuscript, he used it rather than the printer’s manuscript to typeset this portion of the 1830 edition.⁶ Thus, the original manuscript text for these beginning textual elements of the book may be inferred from two extant copies: the printer’s manuscript and the 1830 edition. The diction of the temporal-expressions examined in this Part is identical in both extant copies.

When “scribe 2” (an unknown scribe) started to copy the original manuscript text of this book into the printer’s manuscript, he began with the designation “Chapter – I” followed by the sentence, “And now I Mormon make a record of the things which I have both seen & heard & call it the book of Mormon”.⁷ No title appeared before the chapter designation. However, scribe 2 copied a large portion of the original manuscript (Helaman 13:17 to Mormon 9:37) into the printer’s manuscript and, when Oliver Cowdery later proofread this work, 116 corrections were

⁵ Skousen, ed., “Editor’s Preface”, in *The Book of Mormon: The Earliest Text*, xl; Skousen, *Analysis of Textual Variants of the Book of Mormon, Part One*, 43-44.

⁶ Skousen, ed., *The Original Manuscript of the Book of Mormon*, 6-7, 37; idem, “Editor’s Preface”, in *The Book of Mormon: The Earliest Text*, xxix.

⁷ Skousen, ed., *The Printer’s Manuscript of the Book of Mormon, Part Two*, 877.

made. These corrections included writing problems, spelling issues, and inadvertent duplications, in addition to 81 instances where the printer’s manuscript seems to have been modified to agree with the original manuscript. “Although the original manuscript is, for the most part, not extant for this portion of the text, the 1830 edition is here a first-hand copy of the original manuscript, and in each of these 81 cases Oliver’s correction [in the printer’s manuscript] agrees with the 1830 reading”.⁸ In the beginning text of Mormon₂’s personal record in the printer’s manuscript, Cowdery inserted the title (“the Book of Mormon”) above and before “Chapter – I”, apparently to match the text of the original manuscript.

The text typeset by the compositor of the 1830 edition began with a shortened title in capital letters: “BOOK OF MORMON”.⁹ The compositor seems to have mistakenly dropped the article *the* from the title in the original manuscript.¹⁰ An inserted chapter designation in the 1830 edition, “CHAPTER I”, follows the title in apparent conformity with the original and printer’s manuscripts. In Mormon₂’s previous complete books, the compositor followed the chapter designation with a part of the text that he set in italic type. Each of such italicized parts of the text has come to be called a “preface”.¹¹ According to the *Oxford English Dictionary*, a *preface* introduces “a literary work, usually containing some explanation of its subject, purpose, and scope, and of the method of treatment”.¹² When parts of the introductory declarations were italicized by the compositor, he introduced a literary form into the text that camouflaged the complete form of the introductory declaration. Apparently as a consequence of this foreign literary form, Skousen noted that “Mormon never wrote a preface to his own book of Mormon, nor did Moroni write a preface to the book of Ether or to his own book of Moroni. It would appear that all other books except for the small books at the end of the small plates (Enos, Jarom, and Omni), plus the Words of Mormon, originally had book prefaces”.¹³ This note is accurate insofar as it deals with the compositor’s italicized “prefaces” in the 1830 edition. However, Mormon₂’s personal book, and Moroni₂’s, and even the books of Enos, Jarom, and Omni, together with the Words of Mormon, all have introductory declarations.

To avoid confusion with the compositor’s prefaces, the noun *preface* is not used in this study to describe an introductory declaration. However, since the compositor’s prefaces continue to be separated from the rest of the text and are often still printed in italics (even in the Yale text), references to information contained in a compositor’s preface (including an italicized temporal-expression in the beginning text of Third Nephi) are referenced to the compositor’s preface of the appropriate book.

2.1.3 The contextual statement of chronology

The “about ... about” diction of the contextual statement of chronology in the Book of Mormon may seem vague.¹⁴ Nonetheless, Mormon₂ was certain about the Nephite Christian or

⁸ Skousen designated this unknown writer as “scribe 2”. Skousen, ed., *The Printer’s Manuscript of the Book of Mormon, Part One*, 3-4, 14; idem, “Editor’s Preface”, in *The Book of Mormon: The Earliest Text*, xxix.

⁹ Smith, *The Book of Mormon* (1830), 518.

¹⁰ The compositor also shortened the title of the next major division, “BOOK OF ETHER”. Smith, *The Book of Mormon* (1830), 538.

¹¹ For example: “The lack of a preface for the book of Mosiah ... is probably because the text takes up the Mosiah account some time after its original beginning”. John A. Tvetnes, “Colophons in the Book of Mormon”, in John L. Sorenson and Melvin J. Thorne, eds., *Rediscovering the Book of Mormon* (Salt Lake City: Deseret Book and Provo, Utah: FARMS, 1991), 33.

¹² *The Compact Edition of the Oxford English Dictionary*, II: 2276 (preface).

¹³ Skousen, *Analysis of Textual Variants of the Book of Mormon, Part Six*, 3715.

¹⁴ Mormon 1:2.

NC calendar year when the visit occurred because, just a few lines before the beginning text of his personal record, Mormon₂ noted that “Ammaron being constrained by the Holy Ghost did hide up the records” when the 320th NC calendar year had passed away. He also noted that “the end of the record of Ammaron” occurred when the sacred records had included the events of the 320th NC calendar year. Ammaron then hid all the records in the 321st NC calendar year. These statements occur in the last two verses of Fourth Nephi, immediately before the title of the Book of Mormon.¹⁵ The preposition *about* in the initial phrase of Mormon₂’s contextual statement of chronology, “about the time that Ammaron hid up the records”, means “[n]ear to in *time*”.¹⁶ Thus, following, but near to, the time in the 321st year when Ammaron had “deposited unto the Lord all the sacred engravings concerning this people”, the official Nephite record keeper came to visit Mormon₂.¹⁷ By using the initial phrase about Ammaron’s hiding of the records in Mormon 1:2, the use of a number-term as large as 321 was avoided at the beginning of this book.

While Mormon₂ made the NC era context clear by referencing the 321st NC calendar year, he also listed his approximate age in the latter part of the contextual statement of chronology. Mormon₂ was “about ten years of age” when Ammaron buried the accumulated Nephite records and then chose the young boy to be their next guardian. As part of Mormon₂’s apparent invitation to understand this initial chronology of his life, he later duplicated the link between his age and a specific year in the NC era context. The narrative in Mormon 2:1 states that “in that same year there began to be a war again between the Nephites and the Lamanites. And notwithstanding I being young was large in stature; therefore the people of Nephi appointed me that I should be their leader, or the leader of their armies.” The number-term “that same” in Mormon 2:1 refers to the number-term in Mormon 1:15, where Mormon₂ states “I being fifteen years of age”. Thus, when he was appointed “the leader of their armies”, he seems to have been big, strong, and just 15 years old.¹⁸ Mormon₂ then restates his age in the beginning of Mormon 2:2: “Therefore it came to pass that in my sixteenth year I did go forth at the head of an army of the Nephites against the Lamanites”. During his 16th year, he was still just 15 years of age and he survived that first contact “against the Lamanites”. Then, Mormon₂ connects his personal history to NC calendar years again. “Therefore [meaning that he was 15 years old, officially appointed, and surviving at the forefront of a Nephite army] three hundred and twenty and six years had passed away”. The arithmetic is simple ($10+5 = 15$ and $321+5 = 326$). The chronological statements are precise: Mormon₂ was “about ten” sometime in the 321st NC calendar year when he was visited by Ammaron and he was definitely 15 years old in the 326th NC calendar year when he first went into battle. Thus, his birth “about ten years” before the 321st NC calendar year seems to have occurred in the 310th or 311th NC calendar year.

At the time of his writing, Mormon₂ likely had a number of ways to describe his exact age at the time of Ammaron’s visit. However, as the analysis of symbolism in this Part will suggest, he may have been certain he wanted to include the cardinal number “ten” in his initial number-term. And as the analysis of time-term symbolism in this Part will propose, the report of his age probably could have been made in one of at least three separate calendars. The participial phrase “being about ten years of age” is consistent with a report of an elite man’s birth date in a Mesoamerican Classic period context (250-900 CE).¹⁹

¹⁵ 4 Nephi 1:48-49. See also Division 3, Part 1, Section 1.7.

¹⁶ Webster, *An American Dictionary of the English Language*, I: [95] (about), italics in the original.

¹⁷ Mormon 1:3.

¹⁸ Some Nephite leaders apparently wanted the young official record keeper in the forefront of a battle with the Lamanites.

¹⁹ See Sections 2.3.4 and 2.4.7 herein.

Finally, by duplicating the use of “about” in his personal book’s contextual statement of chronology, Mormon₂ may have been inviting chronological inquiry. His more subtle message may have been, “If you want to know about me, my personal record, and the manner of the learning of my people, study my temporal-expressions.”

2.1.4 Symbolic numbering of temporal-expressions

The contextual statement of chronology appears to have a symbolic numerical context within the *Book of Mormon*. Three books (Third Nephi, Fourth Nephi, and Mormon) all relate to the NC era and its era context. Third Nephi records the beginning narratives associated with the NC era, including: the events of the 92nd Judges calendar year in which the prophesied sign of the mortal Messiah’s birth occurred;²⁰ the events of the 101st Judges calendar year in which the NC era was officially inaugurated and reckoned from “the coming of Christ”;²¹ and the events of the 34th NC calendar year in which the prophesied sign of the Messiah’s death occurred and the prophesied visit of the risen Lord to his New World believers was accomplished.²² Fourth Nephi reports that following the Lord’s visit to these believers, they had formed “a church of Christ in all the lands round about” by the end of the 35th NC calendar year.²³ The following narratives of Fourth Nephi summarize later events until the 321st NC calendar year, when Ammaron buried the Nephite sacred records.

The contextual statement of chronology that begins Mormon₂’s personal record includes the first of 33 temporal-expressions that Mormon₂ placed in his book.²⁴ The number 33 is unquestionably symbolic; it is the prophesied number of NC calendar years completed before the final few days of the mortal life of Christ, as recorded in Third Nephi.²⁵ Moreover, in Fourth Nephi, Mormon₂ placed 35 temporal-expressions, which may be sorted as 33 with express number-terms and two with omitted number-terms, or as 33 with omitted time-terms and two with express time-terms.²⁶ These numbers and alternative adjectival groupings are not coincidental. The symbolic number 33 repeats with each sorting, as does the number two, which apparently symbolizes the two NC calendar years (the 34th and 35th) that are mentioned in the first verse of Fourth Nephi and which included the mortal Messiah’s atonement and death, the preparation of his New World believers for his visit to them as risen Lord, and the believers’ formation of “a church of Christ in all the lands round about”. Mormon₂’s symbolic message seems to be, “Pay attention to my temporal-expressions. They both state and symbolize crucial intervals of Nephite Christian history.”

Mormon₂’s personal record was completed after he had died at the hands of his enemies. Moroni₂ fulfilled his father’s command to add a 34th temporal-expression to the book.²⁷ This 34th temporal-expression apparently symbolizes the 34th NC calendar year, the one in which the sign of the mortal Messiah’s death at the hands of his enemies occurred and the risen “Lord and

²⁰ 3 Nephi 1:1-21.

²¹ 3 Nephi 2:5-8.

²² 3 Nephi 8-26.

²³ 4 Nephi 1:1.

²⁴ See Division 3, Part 1, Table 1.A.

²⁵ Helaman 14; 3 Nephi 8.

²⁶ See Division 3, Part 1, Table 1.A.

²⁷ Mormon 8:1-13.

Savior” visited his New World believers.²⁸ Mormon₂ may have even prescribed the diction of the final temporal-expression in the plates of Mormon because it contains the word “Savior”, a clear reference to Nephi₁’s ancient report of the Messianic prophecy of Lehi₁.²⁹ With this proposed symbolism, Mormon₂ may be inviting his readers, “Pay attention to what my temporal-expressions represent because they are as vital to your life as they have been to mine.”

2.1.5 Narratives and their meanings

To conclude this brief introduction of narratives, temporal-expression numbers, and simple symbolism, the analytical policy of this study regarding *Book of Mormon* narratives may be noted again. Among many hundreds of such narratives, there are 363 temporal-expressions within year-related narratives in the plates of Mormon. A reader need not believe any year-related narrative is based on ancient reality. Whatever one’s beliefs, the ink designs in the extant portions of the original and printer’s manuscripts and in the 1830 edition of the *Book of Mormon* (when interpreted as words in the English language) declare things that may be studied as textual facts and understood apart from the reader’s feelings or beliefs.

With that being said, the policy of this source book is to present narrative details in the way the *Book of Mormon* gives them, as descriptions involving ancient people and events. This policy is simple, clear and textually verifiable. No attempt has been made to create a supposedly objective version of each narrative and the reader is not burdened with wading through what otherwise could be idiosyncratic and possibly misleading stories. Furthermore, whether or not a narrative describes perceptions of an ancient reality is irrelevant to the analysis presented in this study. The definitions, data and statistics are based on the physical text of the *Book of Mormon* and on English linguistics, not on whether one accepts or rejects a belief in the ancient reality of narrated events.

The ink designs, when interpreted as English words, phrases, and sentences, identify three basic groups of text called “plates”. The ink designs provide narratives that include temporal-expressions. The diction, placement, and numbers of temporal-expressions are additional textual facts. Table 1.C of Division 1 of this source book lists the three sets of plates, names their major divisions and principal writers, provides a general guide in Western calendrical terms as to when the text indicates that the plates initially began to be engraved, and lists the extant numbers of temporal-expressions in each major division. In this Part 2 of Division 3, the meanings of the ink designs interpreted as temporal-expressions and their positions and numbers in the text of the Book of Mormon are analyzed. The question under investigation is: What do the temporal-expressions (individually or sorted into rationally-related groups) mean? This study suggests potential meanings that may be identified through a close examination of the text.

Manuscript pages and their ink designs exist. The diction and placement of ink designs that this study has called temporal-expressions exist. The existence of the text, by itself, raises the question of meaning or symbolism. The noun *symbolism* means “[t]he practice of representing things by symbols, or ... the systematic use of symbols”.³⁰ The unquestionably systematic use of specific diction to form temporal-expressions, and the interwoven, typological, and structural placement patterns depicted in Table 1.A of this Division all suggest that the writer’s intended meaning is more than just trolling for a blasé “Isn’t that interesting ...” or a troubled “This is so

²⁸ Mormon 8:6.

²⁹ 1 Nephi 10:1-4.

³⁰ *The Compact Edition of the Oxford English Dictionary*, II: 3206 (symbolism).

complex!” The numbers and patterns invite the careful reader to understand the intended symbols. The number 33 appears to be a symbol of the mortal prophet and Messiah foretold by Lehi₁.³¹ The number 34 seems to be a symbol of the death, resurrection, and visit of the risen Messiah and Savior of the world foretold by Lehi₁, Nephi₁, and other prophets.³² The numbers 34 and 35 together appear to be symbols of the great work undertaken by the 12 Nephite disciples chosen by the risen Lord to lead and organize his New World believers “in all the lands round about”, which, given the work involved and the limited time and means of travel, appears to have been a relatively confined geographical area.

The noun *symbol* means “[s]omething that stands for, represents, or denotes something else”. The dictionary notes that an “exact resemblance” is not required; rather, “some accidental or conventional relation” or even a “vague suggestion” may be understood. Often, “a material object” represents or is “taken to represent something immaterial or abstract, as a being, idea, quality, or condition”.³³ Thus, the basic questions asked in this analysis of the symbolism of each placement pattern, each structural category, each analytical type, and the diction of each word or phrase include: What “conventional relation”, if any, creates potential meanings for these ink designs? What “vague suggestion”, if any, may have been intended by the writer? The purpose of this Part 2 is to seek answers to these questions in the diction, language typology, structural categories, placement patterns, and numbers of temporal-expression ink designs and their associated narratives in Mormon₂’s personal record and in other rationally-related texts.³⁴

2.1.6 Language typology of the first temporal-expression

The first temporal-expression of the Book of Mormon appears in the contextual statement of chronology and begins with a participial narrative-link (*being*) followed by a stated cardinal number-term (*about ten*), an express plural year-term (*years*), and a personalized time-term (*of age*). In Division 1 and Part 1 of this Division 3, the ink designs representing this temporal-expression and the other 33 temporal-expressions in the Book of Mormon were related to each other through an examination of their diction, a sorting of their words into various analytical types and structural categories, and a detailed analysis of the placement of such types and categories in the text. That examination, sorting, and analysis suggested that orderly choices had been made by Mormon₂ (and Moroni₂ at his father’s command) to compose the 34 year-related expressions in this book and to connect them with their associated narratives. Based on the analysis summarized in Tables 1.A and 2.A of this Division, the first temporal-expression in the Book of Mormon may be described with the following statements.

1. The participial or T narrative-link (*being*) is one of four T narrative-links in Mormon₂’s personal book. This narrative-link makes up the first of the four (T) letter-sets in this book and it is the sixth of nine T narrative-links in the extant text of the plates of Mormon: four occur in the extant Book of Mosiah, one in the complete Book of Alma, and the remaining four in the complete Book of Mormon. This T narrative-link is an element of the second temporal-expression in the final appended expression or (*J*) letter-set in the proposed, balanced, non-reversible, letter pattern of mortal-time structural categories in the plates of

³¹ 1 Nephi 10:4.

³² E.g., 1 Nephi 19:7-12; 2 Nephi 25:19.

³³ *The Compact Edition of the Oxford English Dictionary*, II: 3206 (symbol).

³⁴ Mormon₂’s typological and structural placement patterns sometimes begin before the text of the Book of Mormon.

Mormon: (HJH) // (JHJ[L]JHJ). In this depiction of the letter pattern, this (J) letter-set is underlined to clearly indicate the final connection of this temporal-expression to all that Mormon₂ had previously written and implied regarding mortal-time expressions in these plates.

2. The stated cardinal or L number-term (*about ten*) is the first of 13 L number-terms in the Book of Mormon and one of 60 such number-terms in these plates. This L number-term originates the second (L) letter-set (underlined) in the proposed, balanced, non-reversible, letter pattern of number-term structural categories (LKL)(MLM)(KLKLK[M]KLKLK)(MKM)(LKL) that extends from 4 Nephi 1:40 through Mormon₂'s L number-term in Mormon 6:5 and his son's final (commanded) L number-term in these plates at Mormon 8:6. This number-term letter pattern in the plates of Mormon begins when "the more wicked part of the people did wax strong and became exceeding more numerous than were the people of God" and ends with Moroni₂'s report of the total destruction of the Nephite people.

3. The express plural or B year-term (*years*) is one of 13 B year-terms in the Book of Mormon and one of 81 such extant year-terms in these plates. This B year-term originates the first (B) letter-set (underlined) in the alternating, balanced, and reversible letter-group of year-term analytical types and structural categories in the Book of Mormon: (BABABAB[A]BABABAB). This placement pattern initially may appear to organize Mormon₂'s official life of some 64 years with a simple, unified structure. The first (B) letter-set is composed of three B year-terms that begin to associate the NC era context with the age of Mormon₂ and his appointment by Ammaron as the next official Nephite record keeper. The central [A] letter-set in this letter-group includes five A year-terms associated with the middle portion of Mormon₂'s life, when he was about 35 to 40 years of age, and with a period of devastating battles for the control of Nephite lands. The interval concludes with a high point of his military success and a treaty between Nephites and Lamanites that began a decade of peace. The final (B) letter-set is composed of two B year-terms that associate the NC era context with Mormon₂'s transfer of plates and guardianship to his son, followed by Moroni₂'s report of his father's death and the destruction of his people by their enemies.

4. The personalized or G time-term (*of age*) is the first of four G time-terms in the Book of Mormon and one of 25 G time-terms in these plates. This one initiates the second (G) letter-set (underlined) in the alternating, balanced, and reversible (FDG[D]GDF) letter-group of time-term structural categories that extends from the altered name or F time-term in 3 Nephi 2:8 (when the NC era was formally inaugurated) through the F time-term in Mormon 8:6 (when the end of the NC era in the plates of Mormon was recorded by Moroni₂). The official name or [D] central time-term letter-set in this letter-group is composed of two time-terms in temporal-expressions that mark the beginning and end of the fourth generation of Nephite record keepers, a generation in which the prospects of the Nephite people turned toward their prophesied destruction.³⁵

³⁵ 4 Nephi 1:21, 48; 1 Nephi 12:11-19.

Similar statements may be made about the diction and placement of each of the other 33 temporal-expressions in the Book of Mormon. They all appear to be part of organized placement patterns created by the use of various analytical types of year-, time-, and number-terms, narrative-links, temporal-expressions, and their related structural categories. But why would such diction and placement patterns be created? They clearly point the reader to dates, intervals, and events, but do they also symbolize vital aspects of the writers' culture? The numbers and categories of temporal expressions in Fourth Nephi and Mormon, briefly noted in Section 2.1.4 above, suggest that both purposes may be accomplished by the temporal-expressions. Are there other aspects of Mormon₂'s life and the culture of his people that have been symbolized by the temporal-expressions?

2.2 Year-term symbolism

The detailed analysis of chronological symbolism in the plates of Mormon begins with the year-terms. In Part 1 of this Division, the two analytical types of year-terms used in the Book of Mormon were identified as express singular or A year-terms and express plural or B year-terms. While Mormon₂ had used implied singular or C year-terms elsewhere in his plates, no C year-term appears in this major division. The diction of the 34 temporal-expressions in Mormon₂'s personal record and these two types of year-terms (considered as structural categories) produce 15 letter-sets that may be viewed as a simple, alternating, balanced, and reversible letter-group: (BABABAB[A]BABABAB). These 15 letter-sets possibly symbolize Mormon₂'s age when he "was visited of the Lord", forbidden "to preach unto this people", "appointed" to be "the leader of their armies", and "did go forth at the head of an army of the Nephites against the Lamanites".³⁶ However, in three temporal-expressions, Mormon₂ expressly noted that he was 15 years of age when these events occurred; so, a year-term symbol created solely to emphasize his 16th year is questionable. What else may be at work here?

2.2.1 Honoring the legacy of Nephi₁

The single year-term letter-group presented above is not the only way to organize Mormon₂'s autobiography or to subdivide his year-term letter pattern. Indeed, a letter pattern composed only of year-terms within the Book of Mormon may be incomplete. As proposed in Part 2 of Division 1 and in Part 1 of this Division, the final alternating year-term letter pattern in the plates of Mormon seems to begin with the A year-term that ends Fourth Nephi. The complete year-term letter pattern may be 16 (A) and (B) letter-sets, or eight repetitions of an (AB) letter-group, or a single (ABABABABABABAB) letter-group.³⁷

This concluding year-term letter-group in the plates of Mormon evokes the three repetitions of an (AB) letter-group or the single (ABABAB) letter-group created by Nephi₁ for year-terms in the small plates. Both year-term structural patterns cross the boundaries of major divisions. Nephi₁'s pattern and its associated year-related diction and narratives suggest two, alternatively delimited, overlapping, symbolic letter-groups: (AB[A]BA) in his first two books and (BA[B]AB) in his second book, with the final (B) letter-set extending throughout the other major divisions of the small plates. Nephi₁ apparently commanded future writers in the small plates only to use express plural year-terms. These alternative letter-groups in Nephi₁'s writings

³⁶ Mormon 1:15-2:2.

³⁷ See Division 1, Part 2, Section 2.5.3; Division 3, Part 1, Section 1.2.1.

provided a clear symbolic contrast between royal and prophetic power.³⁸ Hence, the 16 (A) and (B) letter-sets that cross the boundary between Fourth Nephi and the Book of Mormon may suggest a distinctive way for Mormon₂ to honor his ancestor, Nephi₁, and to emphasize the ancient prophecies that Nephi₁ recorded in the small plates, which had been fulfilled or were about to be fulfilled in Mormon₂'s lifetime.

The words of Lehi₁'s 600-year prophecy of the birth of a prophet, Messiah, and Savior of the world³⁹ have been referenced in Section 2.1.4 above. The fulfillment of the prophecy apparently was planned to be recorded with the last temporal-expression (including a B year-term) in the small plates of Nephi. Mormon₂ carried out that plan for the small plates with the temporal-expression and associated narrative he recorded in the Words of Mormon.⁴⁰ Nephi₁'s prophecy of the destruction of his people came in a vision in which "three generations did pass away in righteousness" following the appearance of the risen "Lamb of God" to them, and also "many of the fourth generation ... did pass away in righteousness". But then Nephi₁ envisioned "the people of the seed of my brethren [whom the Nephites referred to as "Lamanites"] had overcome my seed".⁴¹ As noted in Section 2.1.6 above, Mormon₂'s central [D] time-term letter-set in the (FDG[D]GDF) structural placement pattern marked the beginning and end of the fourth generation of Nephite record keepers (two brothers, Amos₂ and Ammaron), the generation that immediately preceded Mormon₂'s appointment as the fifth generation record keeper of the Nephite people.⁴² In Mormon₂'s lifetime, the fulfillment of Nephi₁'s prophecy of destruction seemed to grow more likely with each battle of the Nephites against their many enemies because his people refused to repent.

Of course, Mormon₂'s year-terms do not suggest the same symbolic contrast of royal and prophetic power at the end of the Nephite epic as Nephi₁'s year-terms created at the beginning of the epic. An identical contrast between the ancient Jewish royal chronological system and the chronological system of transplanted Messianic prophets and their followers in the New World should not be expected. There had been no reason for Lehi₁ or his descendants to keep recording the regnal years of the Jewish king who helped to bring about the Babylonian destruction of the kingdom of Judah. When Mormon₂'s abridged personal record was created near the end of his life, Nephite culture had been removed from Jewish royal chronology for some nine centuries.

Nevertheless, prophetic and societal connections between the Nephite epic's early and late narratives do exist. Nephi₁'s writings in the small plates begin with a narrative context in which Jewish prophets had been warning for many years about the destruction of Jerusalem if the kings and their people did not repent.⁴³ Mormon₂'s writings at the end of the plates of Mormon also involve a narrative context in which prophets had been warning since the days of Nephi₁ about Nephite destruction if the leaders and their people did not repent. By the time of Ammaron's inspired burial of the sacred Nephite records, and by the day of his appointment of Mormon₂ as the fifth generation of official record keepers since the coming of Christ,⁴⁴ the unrepentant Nephites had created social conditions in which the destruction prophesied by Nephi₁ hundreds

³⁸ See Division 2, Part 2, Sections 2.3.2; 2.3.3.

³⁹ 1 Nephi 10:4.

⁴⁰ See Division 2, Part 2, Sections 2.3.2; 2.3.3.

⁴¹ 1 Nephi 12:11-19; see also Jacob 1:13-14; 4 Nephi 1:20, 35-39.

⁴² 4 Nephi 1:21-49.

⁴³ 1 Nephi 1:4; see also, e.g., Deuteronomy 28:45-68; 1 Kings 6:12-13; 9:1-9; 2 Chronicles 36:11-16; Isaiah 1; 3; 5; Jeremiah 7; 26; Micah 1; 3.

⁴⁴ 4 Nephi 1:45-Mormon 1:14.

of years earlier had grown ripe for realization.⁴⁵ Most likely, Mormon₂ was not oblivious to the social conditions in which Nephi₁'s life began at Jerusalem and his own life would end at Cumorah in fulfillment of Nephi₁'s ancient prophecy.

The honoring of Nephi₁'s prophetic and record keeping legacy in the concluding text composed by Mormon₂ is not limited to the recognition of similar social conditions and prophetic fulfillment. The plates on which Mormon₂'s personal book was recorded were not blank "plates of Nephi" that he inherited from Ammaron.⁴⁶ Mormon₂ made new plates "with [his] own hands", following the ancient example of his forefather Nephi₁,⁴⁷ who created the first set of plates "with [his] own hands" and apparently prescribed the metalsmithing process, composition, and dimensions for making additional "plates of Nephi".⁴⁸ Mormon₂'s physical act of creating plates may have not only venerated his ancestor's legacy, but replaced some of the blank "plates of Nephi" that he had inherited from Ammaron and used for the record he added to the official plates of Nephi.⁴⁹

When Mormon₂ composed the Book of Mormon, he abridged the record of his life and times from the more complete history he had recorded previously, at least part of which had been engraved on blank "plates of Nephi" that Ammaron had left for him.⁵⁰ Mormon₂'s abridgement of his personal record begins with a title, "The Book of Mormon", and apparently continues through his final temporal-expression and report that he had given these plates to his son Moroni₂ before the last great battle of the Nephite people.⁵¹ At about that time, Mormon₂ expressed hope that his son would survive the battle and add a final historical report and testament of Christ to the Book of Mormon. This expression of hope appears in the Words of Mormon on the small plates of Nephi and uses a year-term that completes Nephi₁'s final (B) letter-set.⁵² At the time of the battle, Mormon₂'s composition on his own plates apparently ended with his note in Mormon 6:6 about "these few plates [apparently meaning the plates of Mormon and the attached small plates of Nephi⁵³] which I gave unto my son Moroni". Presumably, Mormon₂ and his son carefully hid the attached sets of plates where they could be retrieved safely if either of them survived the Lamanite onslaught.

During the battle, Mormon₂ "fell wounded in the midst" and the Lamanite horde "passed by [him], that they did not put an end to [his] life". Moroni₂ and a few others also survived. As they hid together for a time, "these few plates" were retrieved. Mormon₂ then recorded his own report of the battle and a final testament of Christ on the plates of Mormon. His last recorded word is "Amen".⁵⁴ At that point, he delivered "these few plates" into the guardianship of Moroni₂ for the final time. Then, the combined plates of Mormon and small plates of Nephi were hidden again. All of this activity to create the abridged record on the plates of Mormon also evokes Nephi₁'s creation of the small plates, which contained his own abridged record from the official plates of

⁴⁵ E.g., Mormon 2:10-15, 27; 3:1-3; 3:8-16.

⁴⁶ Mormon 1:2-5; 2:16-18; 4:23; 6:6.

⁴⁷ 3 Nephi 5:11.

⁴⁸ 1 Nephi 1:3, 17.

⁴⁹ Mormon 1:3; 2:16-18.

⁵⁰ Words of Mormon 1:1-9; 3 Nephi 5:9-20; Mormon 2:16-18.

⁵¹ Mormon 6:5-6.

⁵² Words of Mormon 1:1-2.

⁵³ Words of Mormon 1:1-9.

⁵⁴ Mormon 6:7-7:10.

Nephi and ended his writings with an extensive testimony of Christ. Nephi₁'s last recorded word also is "Amen".⁵⁵

Nephi₁ and Mormon₂ both chose to describe the passing of years solely with express singular and plural year-terms in their final writings. Nephi₁'s ABABAB letter pattern suggested two, alternatively delimited, overlapping letter-groups that implied a symbolic contrast between royal and prophetic power. Hence, Mormon₂'s apparent honoring of his ancestor's legacy may suggest that Mormon₂ created similar, alternatively delimited, letter-groups: an (ABABABA[B] ABABABA) letter-group bridging between his last two books and a (BABABAB[A] BABABAB) letter-group just in the Book of Mormon. These possible structures bear some similarity to the symbolic structure of Nephi₁'s writings, but they are much longer and involve many more year-related narratives.

2.2.2 Narratives associated with two, alternatively delimited, potential letter-groups

Table 2.B of this Division lists the final 35 year-terms in the plates of Mormon.⁵⁶ These 35 year-terms constitute the last year-term letter pattern in the plates of Mormon, a pattern consisting of only alternating express singular (A) and express plural (B) year-term letter-sets. These regular capital letters and quotations of secondary narrative language associated with each year-term are included in the table. The potential (ABABABA[B]ABABABA) letter-group is identified in the table as the "[B]-centered" group. The narratives related to the beginning and ending (A) letter-sets have their A year-terms placed in single lined boxes, and the narratives associated with the central [B] letter-set have their B year-terms placed in a double lined box. These key narratives (beginning, central, and ending) may be summarized as follows.

- (A) Ammaron completes the Nephite sacred record through the end of the 320th NC calendar year and then hides all the records in the hill Shim during the 321st NC calendar year
- [B] Nephite forces led by Mormon₂ defeat a larger Lamanite army led by king Aaron, but Nephite wickedness continues and thousands are slain over the following 14-year period
- (A) Lamanite forces drive the Nephites to the land of Cumorah in the 380th NC calendar year; the Lamanite king agrees to Mormon₂'s request for a respite from war to allow them all to prepare for a final great battle

If Nephi₁'s overlapping, symbolically contrasting, year-term structure suggested the structure for Mormon₂'s 35 concluding year-terms, then the foregoing potential narrative pattern may be compared with the narrative pattern of an alternatively delimited (BABABAB[A] BABABAB) letter-group. In Table 2.B, this other letter-group is identified as the "[A]-centered" group. The narratives related to the beginning and ending (B) letter-sets have their B year-terms placed in single lined boxes and the narratives associated with the central [A] letter-set have their A year-terms placed in a double lined box. The key narratives (beginning, central, and ending) in this potential year-term letter-group may be summarized as follows.

- (B) Ammaron appoints Mormon₂ to be his successor guardian of the Nephite sacred treasure; he commands the boy regarding his record keeping duties, including the

⁵⁵ 2 Nephi 33:15.

⁵⁶ 4 Nephi 1:48-Mormon 8:6.

retrieval and engraving of blank “plates of Nephi” when Mormon₂ is about 24 years of age; Mormon₂’s father carries him to the land of Zarahemla

- [A] In two separate years, Lamanite forces pursue, hunt, and drive the Nephites until Mormon₂ rallies his armies and defeats the Lamanites; over the next three years, Mormon₂’s armies retake all the lands previously lost to the Lamanites; however, in an attempt to create peace, the Nephites enter into a treaty relinquishing some of their former lands (including Zarahemla) to the Lamanites
- (B) During four years of peace, Nephites who will gather to Cumorah do so; Mormon₂ engraves his seven abridged books on the plates of Mormon and hides all the other Nephite records in the hill Cumorah; after engraving his Words of Mormon on the small plates of Nephi, he attaches those plates to the plates of Mormon; he appoints Moroni₂ to be the guardian of the attached sets of plates; in the 385th year, Nephites and Lamanites gather for a final battle; Mormon₂ is wounded, but he survives to add his report of the battle to the plates of Mormon; Moroni₂ also survives the battle; 15 years later, Moroni₂ reports that his father was killed by Lamanites and he fulfills his father’s commands regarding the final text to be placed in the plates of Mormon

While there appear to be narrative parallels in the beginning and ending letter-sets of the potential [A]-centered group, the only narrative parallels in the beginning and ending letter-sets of the potential [B]-centered group seem to be their use as antecedents of later events. The central letter-set in each group merely seems to be related to Nephite military history. One must also question whether the seeming parallels are anything other than a consequence of the narrative sequences in a life that began, matured, and ended. Thus, each lengthy structure itself and the key associated narratives do not appear to justify the conclusion that the 35 year-terms that end the plates of Mormon are to be understood as two, alternatively delimited, overlapping letter-groups. With that being said, Mormon₂’s apparent veneration of Nephi₁’s legacy does suggest another related, but quite different, potential structure for the 35 year-terms and their associated narratives.

2.2.3 Narratives associated with three consecutive letter-groups

The following proposed year-term placement pattern suggests another symbolic connection between Nephi₁’s ancient writings and Mormon₂’s personal record. Nephi₁’s complete year-term letter pattern in the small plates of Nephi consists of six alternating (A) and (B) letter-sets. The final letter pattern in the plates of Mormon consists of 16 alternating (A) and (B) letter-sets, ten more than Nephi₁’s letter pattern. Each of Nephi₁’s alternatively delimited, overlapping, symbolic letter-groups consists of five letter-sets: (AB[A]BA) in First and Second Nephi; and (BA[B]AB) in Second Nephi and extending to the end of the small plates. To replicate Nephi₁’s express and symbolic letter-groups, Mormon₂ apparently organized his own 16 letter-sets in a closely related way.

First, Mormon₂’s final year-term placement pattern begins with an (AB[A]BA) letter-group in Fourth Nephi and Mormon that is identical in form to Nephi₁’s (AB[A] BA) letter-group in First and Second Nephi.

Last, Mormon₂ completed his final year-term placement pattern with a (BA[B]AB) letter-group that begins in the Book of Mormon, extends to the end of the plates of Mormon, and is identical in form to Nephi₁’s (BA[B]AB) letter-group that begins in Second Nephi and extends to the end of the small plates.

Between Mormon’s five-part letter-groups that replicate the forms of Nephi₁’s symbolic letter-groups, Mormon₂ inserted a central (BABABA) letter-group that replicates the number of letter-sets in Nephi₁’s express (ABABAB) letter-group; however, Mormon₂ reversed the order of the letter-sets. Nephi₁’s personal writings began the small plates; Mormon’s personal writings concluded the plates of Mormon.

Table 2.C presents this proposal for the likely structure of Mormon₂’s concluding year-term placement pattern. The beginning letter-group is identical in its year-term structure to Nephi₁’s first, alternatively delimited, symbolic letter-group: (AB[A]BA). In the plates of Mormon, this letter-group and its ten year-terms and five letter-sets are associated with the beginning portion of Mormon₂’s life. When Mormon₂ was born in the 310th or 311th NC calendar year, Ammaron had been the official Nephite record keeper for five or six years.⁵⁷ The narratives related to the beginning and ending letter-sets of this proposed letter-group have their A year-terms placed in single lined boxes, and the narratives associated with the central [A] letter-set have their A year-terms placed in a double lined box. The narratives in this proposed year-term letter-group may be summarized as follows.

- (A) Ammaron completes the Nephite sacred record through the end of the 320th NC calendar year and then hides all the records in the hill Shim during the 321st NC calendar year
- (B) Ammaron appoints Mormon₂ to be his successor guardian of the Nephite sacred treasure; he commands the boy regarding his record keeping duties, including the retrieval and engraving of blank “plates of Nephi” when Mormon₂ is about 24 years of age; Mormon₂’s father carries him to the land of Zarahemla
- [A] Lamanite and Nephite armies engage in several battles; Nephites are victorious
- (B) Nephites enjoy peace for about four years, but they do not repent of their evils; Mormon₂ is visited of the Lord; he attempts to preach, but is forbidden
- (A) War with the Lamanites returns; Mormon₂ is appointed to be the leader of the Nephite armies; he leads a Nephite army against the Lamanites

All these narratives have a common narrative basis; they describe events and circumstances during Mormon₂’s youthful formative years. When he goes to war at the forefront of a Nephite army, those years come to an end.

The proposed concluding year-term letter-group of Mormon₂ is identical in form to Nephi₁’s second, alternatively delimited, symbolic letter-group: (BA[B]AB). In the Book of Mormon, this letter-group and its 14 year-terms and five letter-sets are associated with the last approximately 24 years of Mormon₂’s life. The parallel to his first 24 years of life, before he began to record his early memories as commanded by Ammaron, seems to have been intended. Even though he was an active Nephite commander in the wars with the Lamanites, he fulfilled his calling as the official record keeper of his people.⁵⁸ In Table 2.C, the narratives related to the letter-sets of this concluding letter-group have their beginning and ending B year-terms placed in single lined boxes. The narratives associated with the central [B] letter-set have their B year-terms placed in a double lined box. All the narratives in this proposed letter-group are summarized as follows.

⁵⁷ 4 Nephi 1:47.

⁵⁸ Mormon 2:16-18.

- (B) The end of a treaty of peace and a related interval of ten NC calendar years is noted; the Nephites prepare for war with the Lamanites
- (A) Lamanites attack the Nephites in the 361st NC calendar year, but they are beaten and return to their own lands; Lamanites attack in the 362nd year and are beaten again; Nephites decide to attack the Lamanites; Mormon₂ refuses to lead the Nephite offensive of the 363rd year, which fails; the war continues in see-saw fashion in the 364th, 365th, and 366th years, with thousands slain on both sides; in the 367th year, after a Lamanite slaughter of Nephite women and children, the Nephites drive the Lamanites out of Nephite lands; the Lamanites do not attack again until the 375th year; then, with immense numbers, the Lamanites begin the final Nephite genocide
- [B] Nephites flee the Lamanite advance; towns, villages, and cities are destroyed by fire
- (A) Lamanite forces drive the Nephites to the land of Cumorah in the 380th NC calendar year; the Lamanite king agrees to Mormon₂'s request for a respite from war to allow them all to prepare for a final great battle
- (B) During four years of peace, Nephites who will gather to Cumorah do so; Mormon₂ engraves his seven abridged books on the plates of Mormon and hides all the other Nephite records in the hill Cumorah; after engraving his Words of Mormon on the small plates of Nephi, he attaches those plates to the plates of Mormon; he appoints Moroni₂ to be the guardian of the attached sets of plates; in the 385th year, Nephites and Lamanites gather for a final battle; Mormon₂ is wounded, but he survives to add his report of the battle to the plates of Mormon; Moroni₂ also survives the battle; 15 years later, Moroni₂ reports that his father was killed by Lamanites and he fulfills his father's commands regarding the final text to be placed in the plates of Mormon

All these narratives also have a common narrative basis; they describe events and circumstances during Mormon₂'s latter (approximately 24) years. When the treaty of peace that had lasted for ten years collapses, these final years commence.

Between the proposed beginning and concluding letter-groups, Mormon₂ placed 11 year-terms in six alternating letter-sets similar to Nephi₁'s six alternating letter-sets in First and Second Nephi. As noted above, Mormon₂ reversed Nephi₁'s placement pattern: a (BABABA) letter-group instead of an (ABABAB) letter-group. While Mormon₂ apparently intended his (BABABA) letter-group to be understood in relation to Nephi₁'s (ABABAB) letter-group, Mormon₂ created a contrast by reversing the placement pattern. Nephi₁'s letter-groups began the Nephite epic; Mormon₂'s letter-groups ended the epic.

The placement of the proposed concluding (AB[A]BA)(BABABA)(BA[B]AB) year-term letter-groups also must be examined. In the combined set of plates that Mormon₂ delivered to Moroni₂, Nephi₁'s writings in the small plates immediately followed Mormon₂'s personal book. Thus, because the two sets of plates were attached to each other, Mormon₂'s three, concluding, consecutive (AB[A]BA)(BABABA)(BA[B]AB) year-term letter-groups immediately preceded Nephi₁'s explicit (ABABAB) letter-group and its overlapping, alternatively delimited, symbolic (AB[A]BA) and (BA[B]AB) year-term letter-groups. In effect, Mormon₂'s three consecutive letter-groups seem designed to teach his readers "after the manner of the learning of [his] people", so that they can readily identify the chronological structure and understand the symbolic contrast created by Nephi₁ centuries earlier. Thus, Mormon₂'s concluding year-term letter pattern expressly organizes three consecutive periods of his life, but simultaneously operates as a

teaching instrument, a deconstruction, that illustrates Nephi₁'s placement of year-terms and, thereby, identifies Nephi₁'s symbolic contrast of royal and prophetic power. Mormon₂ had no need to contrast royal and prophetic power. In his final years, the prophetic power of his ancestors Lehi₁ and Nephi₁ had proven to be entirely reliable. That certainty also was worthy of Mormon₂'s honor and became an integral part of his ultimate year-term symbolism.

2.2.4 Time- and number-terms related to the proposed year-term letter-groups

The textual evidence for the proposed structure of Mormon₂'s concluding 35 year-terms is not limited to the year-terms, their associated narratives, and Nephi₁'s following organization of year-terms. Time- and number-terms also corroborate the proposed letter pattern. The A year-term that initiates Mormon₂'s beginning (AB[A]BA) letter-group and the B year-term that initiates his concluding (BA[B]AB) letter-group are set apart by the diction and placement of their identical, official time-terms: "from the coming of Christ". In addition, four time-terms ("of age" twice and "old" twice) and a possessive pronoun ("my") in the last number-term of the (AB[A]BA) letter-group, all show that this letter-group is to be understood as a complete unit expressly concerned with the early years of Mormon₂. In addition, the number-terms in this letter-group all describe quantities of years measured from his date of birth: "about ten", "about twenty and four", "eleven", "fifteen", and "my sixteenth". Mormon₂'s beginning (AB[A]BA) letter-group clearly exists as a distinct textual unit within the plates of Mormon.

Only with the first B year-term of the central (BABABA) letter-group does Mormon₂ begin to specify years by using number-terms in the NC era context, rather than years of his age. None of the 11 year-terms in the central (BABABA) letter-group is qualified by an express time-term; so, the number-terms indicate the NC era context. While the lack of time-term evidence is not proof that Mormon₂'s (BABABA) letter-group is to be viewed as a distinct textual unit, that uniform textual fact is consistent with the central letter-group being identified as different from Mormon₂'s (AB[A]BA) letter-group, which includes five temporal-expressions with express time-terms, and from his (BA[B]AB) letter-group, which begins and ends with express time-terms referring to the Messiah's birth date.

The 14 year-terms in Mormon₂'s concluding (BA[B]AB) letter-group begin with a temporal-expression that has an official era name as its time-term: "from the coming of Christ". The 14 year-terms conclude with a temporal-expression that has another express time-term: "since the coming of our Lord and Savior". This final time-term in the plates of Mormon has been categorized in Division 1 as an altered era name.⁵⁹ The other 12 year-terms in the ending (BA[B]AB) letter-group have no time-terms, but the related number-terms clearly suggest years measured and numbered within the NC era context. Thus, Mormon₂'s concluding (BA[B]AB) letter-group also appears to be a distinct textual unit within the plates of Mormon. These associations of year-terms with their express or omitted time-terms and their express number-terms suggest that these adjectival components of the year-related expressions in the Book of Mormon also should be examined carefully for their potential symbolism. This detailed examination of the adjectives begins with time-terms.

⁵⁹ See Division 1, Part 3, Section 3.3.2.

2.3 Time-term symbolism

In Part 1 of this Division, the six analytical types and three structural categories of time-terms apparently used in the *Book of Mormon* were identified.⁶⁰ Four of the analytical types (E, F, G, and H) and all three structural categories (D, F, and G) appear in Mormon₂'s personal record. The diction of the six time-terms in the Book of Mormon ranges from two single G words (each “old”), to two simple G phrases (“of age”), to an official or short name for the NC era (“from the coming of Christ”), to the more lengthy altered name for the era (“since the coming of our Lord and Savior”). As noted in Section 2.1.6 above, the time-term structural categories in the *Book of Mormon* appear to create a seven-part, balanced, and reversible (FDG[D]GDF) letter-group that begins with the (F) time-term letter-set in 3 Nephi 2:8, when the NC era was formally inaugurated. This letter-group extends through the (F) time-term letter-set in Mormon 8:6, when the end of the NC era in the plates of Mormon was recorded by Moroni₂. Third Nephi contains four temporal-expressions that produce the initial FDG letter pattern and Fourth Nephi includes two temporal-expressions that generate the central [D] letter-set of this letter-group. Thus, the variable sequence GDF letter pattern in the Book of Mormon completes the balanced and reversible (FDG[D]GDF) letter-group associated with the official recognition of the NC era by the Nephite people. In this view of time-term structural categories, Mormon₂ disregarded all omitted time-terms.

2.3.1 Personalized time-terms related to age

The personalized or G time-terms that Mormon₂ recorded in connection with the (FDG[D]GDF) letter-group suggest a number of symbolic connections. This structural category includes a simple word (“old”) and a basic phrase (“of age”). They each appear twice in the Book of Mormon and all four of these time-terms compose the second (G) letter-set in this letter-group. The temporal-expressions and associated narratives relate to the early years of Mormon₂.⁶¹ The latter of the two G time-terms in Third Nephi, which is also “old”, completes the first (G) letter-set in this letter-group. This personalized time-term relates to the old age of the risen Lord's 12 Nephite disciples, whom he had appointed to lead his church in the New World.⁶² Nine of those disciples were blessed by the Lord to live at least until they were “seventy and two years old” and then to “come unto me in my kingdom, and with me ... find rest”.⁶³ He blessed the other three disciples for desiring:

the thing which John my beloved, which was with me in my ministry before that I was lifted up by the Jews, desired of me. Therefore ... ye shall never taste of death, but ye shall live to behold all the doings of the Father unto the children of men, even until all things shall be fulfilled according to the will of the Father when I shall come in my glory with the powers of heaven. But when I shall come in my glory, ye shall be changed ... from mortality to immortality. And then shall ye be blessed in the kingdom of my Father.⁶⁴

⁶⁰ See Division 3, Part 1, Section 1.2.2.

⁶¹ Mormon 1:2-3, 6, 15.

⁶² 3 Nephi 11: preface-12:1; 26:17-28:23; Moroni 2:1-3.

⁶³ 3 Nephi 28:1-3.

⁶⁴ 3 Nephi 28:4-8.

Hundreds of years later, Mormon₂ wrote about the three transfigured disciples, “I have seen them, and they have ministered unto me”.⁶⁵ Moroni₂ confirmed his father’s statement nearly two decades later: “my father and I have seen them, and they have ministered unto us”.⁶⁶

These simple G time-terms related to the youth and old age of the Lord’s disciples may be contrasted with the G time-term that initiates the (G) letter-set in Third Nephi. This time-term is the phrase, “since the more part of the people had turned from their righteousness”.⁶⁷ These people are contrasted with some of the most righteous followers of Christ. Mormon₂ used this lengthy phrase to describe the condition of the majority of the Nephites when their government by judges was overthrown by rebellious elites. Many other tribal leaders opposed the rebellion, drove the rebellious away, and asserted their own authority over their various tribes. In Third Nephi, the two G time-terms not only contrast with each other physically (12 words vs. one word), but symbolically. The first is associated with wicked Nephites and their rebellious elites. The second is associated with nine of the Nephites’ most virtuous, unifying leaders. Hence, Mormon₂’s first use of a G time-term “old” in the Book of Mormon, to describe his age when he was called to be the Nephites’ official record keeper, clearly symbolizes which side of the moral and spiritual divide Ammaron commanded Mormon₂ to choose for his own life and, in particular, to be protected by the Lord as he fulfilled all the work yet to be required of him by his unique calling.

2.3.2 Personalized time-terms related to the official record keeper

The official name or (D) time-term letter-set in the Book of Mormon is composed of a single short era name, “from the coming of Christ”.⁶⁸ The central [D] letter-set in the (FDG[D]GDF) letter-group includes the two short era names in Fourth Nephi, which together identify the beginning and end of the record keeping work of the two fourth generation record keepers, Amos₂ and his brother Ammaron.⁶⁹ As discussed in Section 2.2.4 above with respect to the use of such time-terms, the last D time-term in Fourth Nephi and the only D time-term in the Book of Mormon were carefully placed to emphasize the didactic purpose and structure of Mormon₂’s final year-term letter pattern and to help Mormon₂ honor his prophetic, record keeping ancestors. The first (D) letter-set in the (FDG[D]GDF) letter-group occurs in Third Nephi and may be interpreted as including just a single temporal-expression with a short era name for the NC era.⁷⁰ For structural purposes, this conclusion is sufficient, but for the symbolic purposes to be discussed later in this Division 3, the altered name or F time-term that begins the (FDG[D]GDF) letter-group in Third Nephi may be deemed to be paired with a fifth short era name. That short era name may be viewed alternatively as a component of the F time-term or as a distinct D time-term that initiates the (D) letter-set in Third Nephi.⁷¹

The symbolic connections of the five expressions that use official time-term diction all relate to the work of Nephite record keepers. In 3 Nephi 2:8, the official time-term is associated with

⁶⁵ 3 Nephi 28:26.

⁶⁶ Mormon 8:11.

⁶⁷ 3 Nephi 7:8.

⁶⁸ Mormon 3:4.

⁶⁹ 4 Nephi 1:21, 48.

⁷⁰ 3 Nephi 3:1.

⁷¹ 3 Nephi 2:8.

the labors of the priesthood “to reckon their time” accurately.⁷² The second official time-term in Third Nephi is linked to narratives about the Nephite governor, Lachoneus₁, receiving “an epistle” from the leader of the Gaddianton robbers and sending “a proclamation among all the people”.⁷³ These narratives suggest that the record keepers’ work included scribal duties beyond recording history and protecting the plates.

In 4 Nephi 1:21, the official time-term identifies a time when Amos₁, the third generation official Nephite record keeper, died and his son, Amos₂, began to keep “the record in his stead. And he also kept it upon the plates of Nephi; and it was also written in the book of Nephi, which is this book”. In other words, neither Amos₁ nor Amos₂ appear to have created books named for themselves, but they included their reports in the official version of “The Book of Nephi[₄], which is the son of Nephi[₃], one of the disciples of Jesus Christ”. The related narratives suggest that the official record keepers’ lives were preserved for many years. Amos₁ “kept [the records] eighty and four years” and Amos₂ may have kept the record for 111 years, although the transition from Amos₂ to “his brother Ammaron” may not be entirely clear.⁷⁴

These narratives also suggest that the official record keepers were deeply aware of the “fourth generation” prophecy of Nephi₁ (a version of which seems to have been referred to by the Lord) and they seem to have done whatever they could to create and maintain extremely long official generations.⁷⁵ During the “fourth generation” official tenures of Amos₂ and Ammaron, the threat of Nephite apostasy began to be realized and, eventually, Ammaron was inspired to preserve the records by burying them in the earth and placing the responsibility for them on the boy Mormon₂.

The final D time-term in the (FDG[D]GDF) letter-group occurs in Mormon 3:4. When the 360th NC calendar year had ended, “the king of the Lamanites sent an epistle” to Mormon₂. The scribal aspect of the record keepers’ duties again is suggested and Mormon₂’s response to the threat in the epistle is similar to that of Lachoneus₁. He unified his people in a single location and “did fortify against [the Lamanites] with all our force”. Presumably, some sort of written proclamation also may have been involved in bringing about the unity of the people and their “armies” at “a city which was in the borders by the narrow pass which led into the land southward”.⁷⁶ Clearly, Mormon₂ organized the last four official time-terms in a balanced (1/2/1) number pattern with symbolic implications (scribal duties, generational and record keeping duties, scribal duties) that suggest some of the more important labors and concerns of the Nephite priesthood. The distinctive use of all five D time-terms in the (FDG[D]GDF) letter-group with respect to the record keeping labors of the priesthood appears to have been carefully planned for Mormon₂’s symbolic purposes.

2.3.3 Altered name time-terms related to the NC era

The diction of the two altered name or F time-terms in the (FDG[D]GDF) letter-group helps to identify the NC era that is implied in the plates of Mormon. A unique F time-term appears in Third Nephi and, because Moroni₂’s life was preserved and he obeyed his father’s commands, another unique F time-term appears at the end of the Book of Mormon. Both of these time-terms,

⁷² Compare 3 Nephi 8:1-2; Division 7, “Jesus’ Death and Resurrection at Jerusalem”.

⁷³ 3 Nephi 3:1, 13.

⁷⁴ 4 Nephi 1:20-21, 47.

⁷⁵ See Division 10, “Nephi Prophesies the Destruction of His People”.

⁷⁶ Mormon 3:4-6.

their temporal-expressions, and their associated narratives, suggest details about the NC era context.

The temporal-expression in 3 Nephi 2:8 has been described in this study as “the pivotal temporal-expression in the *Book of Mormon*”.⁷⁷ The time-term in that verse immediately follows the longest time-term in the *Book of Mormon*, “from the time which the sign was given which was spoken of by the prophets that Christ should come into the world”. Untold ages of prophetic Messianic expectation are expressed in these 22 words. Fully 600 faithfully measured and counted years of such expectation after the departure of Lehi₁ from Jerusalem are expressed in these 22 words. Then, at this crucial point in the record, the altered name or F time-term in 3 Nephi 2:8 appears with equally symbolic diction and a unique position within its year-related expression. In all the *Book of Mormon*, no other time-term occurs before its year-term. All of Nephite chronology moves toward, then pivots, and moves away from the time described in 3 Nephi 2:8: “from this period which the sign was given, or from the coming of Christ”.

The diction of this uniquely placed time-term, when its conjoined parts are viewed as a unified whole, includes both declarations regarding the *sign* and *coming* of the Messiah as the proposed long name for the NC era: “since the *sign* was given of the *coming* of Christ”.⁷⁸ However, Mormon₂ does not use the official long era name for this first distinctive reference to the new Nephite chronological system. Instead, he brings together a symbolic phrase referring to the “period” of the sign being given to the Nephites and a standard short era name for the NC era. The vital significance of the night without darkness, which had been prophesied to appear as a sign before the day of the Messiah’s birth, is not to be overlooked or ignored. The diction, placement, and symbolism related to this time-term have been introduced in Division 1, Part 3, and are analyzed thoroughly in Part 3 of this Division.

The precise diction, placement, and significance of the altered name or F time-term in 3 Nephi 2:8 suggest that the final temporal-expression in the plates of Mormon also may have been carefully composed by Mormon₂. His personal record originally seems to have ended just before the last great Nephite battle, when he noted that 384 NC calendar years had passed away and he had given the plates of Mormon and the attached small plates of Nephi to his son Moroni₂.⁷⁹ Most likely, Mormon₂ and his son carefully hid these sets of plates where they could be retrieved safely and without endangering the official plates of Nephi and brass plates if either of them survived the Lamanite assault. Mormon₂ was wounded and fell, but the Lamanite armies “passed by [him], that they did not put an end to [his] life”.⁸⁰ Moroni₂ and several others also survived and may have hidden together for a time. Presumably, Moroni₂ retrieved the attached sets of plates for his father and Mormon₂ recorded his report of the battle and his final testament of Christ on the plates of Mormon.⁸¹ Then he delivered the attached sets of plates into the guardianship of Moroni₂ for the last time and these plates were hidden again for their safety. Moroni₂’s later writings on the plates of Mormon indicate that his father “commanded” him to survive through the end of the 400th NC calendar year and then to record his own report concerning the end of the Nephite people and his faith in Christ, together with a temporal-expression recording the end of 400 NC calendar years. Some 15 years after the battle, Moroni₂

⁷⁷ See Division 1, Part 3, Section 3.7.

⁷⁸ Moroni 10:1, italics added.

⁷⁹ Mormon 6:5-6; Words of Mormon 1:1-8.

⁸⁰ Mormon 6:10.

⁸¹ Mormon 6:7-7:10.

wrote: “I ... do finish the record of my father” and “I have but few things to write, which things I have been commanded of my father”. The “few things” that were “commanded” by Mormon₂ filled up the small remaining space on the plates of Mormon.⁸²

The final F time-term in Mormon 8:6 is “since the coming of our Lord and Savior”. This time-term seems to be based on the short era name, “from the coming of Christ”; however, that name has been altered by two substitutions. First, the preposition *since* has been substituted for the preposition *from*. This substitution, simple as it seems, uses the same preposition that begins the short name of the Lehi era and the long name of the NC era. This alteration links the last time-term in the plates of Mormon with the beginning of the narrative of the Nephite people when “Lehi left Jerusalem” and with the extraordinary sign of a night without darkness by which the converted Nephites and Lamanites identified the following day as the Messiah’s birth date. Moroni₂’s engraving of this F time-term formally and symbolically concluded the years associated with Lehi₁ and his followers and the multitudes of their descendants and converts who became believers in the Savior prophesied by Lehi₁.⁸³

The second alteration to the short era name substitutes the noun phrase *our Lord and Savior* for the proper noun *Christ*. The phrase *our Lord and Savior* not only distinguishes this final time-term in the plates of Mormon from the short era name Mormon₂ had used five times previously in the books of Third Nephi, Fourth Nephi, and Mormon, but it also provides a formal part of Moroni₂’s witness of his faith in Christ.

The temporal-expression recorded by Moroni₂ seems likely to have been composed by Mormon₂, but it could have been composed by Moroni₂ to honor his father’s legacy. The phrase *our Lord and Savior* occurs just one other time in the *Book of Mormon*, in one of Mormon₂’s brief comments about the failure of the Nephite people to repent, a failure that, as the Lord explained to him, would result in their destruction.

And when they had sworn by all that had been forbidden them by *our Lord and Savior* Jesus Christ that they would go up unto their enemies to battle and avenge themselves of the blood of their brethren, behold, the voice of the Lord came unto me, saying: Vengeance is mine, and I will repay. And because this people repented not after that I had delivered them, behold, they shall be cut off from the face of the earth”.⁸⁴

The phrase *our Lord and Savior* is not only part of Mormon₂’s vocabulary, but it connects the final F time-term in the plates of Mormon to Lehi₁’s prophecy of the mortal birth of a “prophet”, “Messiah”, and “Savior of the world” and to Nephi₁’s discourse on the baptism of “your Lord and Savior”, both of which appear in the small plates of Nephi.⁸⁵ Finally, by employing the phrase *our Lord and Savior*, which Mormon₂ had used previously with the name *Jesus Christ*, Moroni₂ also associated the temporal-expression in Mormon 8:6 with Nephi₁’s vision of an angel who referred to the expected Messiah as “Jesus Christ, which is the Lamb of God” and then showed Nephi₁ the dreadful vision of the eventual destruction of his people.⁸⁶ These links to the prophecies of Lehi₁ and Nephi₁ are consistent with Mormon₂’s other efforts to explain and honor the writings of Nephi₁, which Mormon₂ attached immediately after the

⁸² Mormon 8:1-13.

⁸³ 1 Nephi 10:4.

⁸⁴ Mormon 3:14-15, italics added; see also Mormon 3:9-13.

⁸⁵ 1 Nephi 10:4; 2 Nephi 31:13.

⁸⁶ 1 Nephi 12:18-21.

symbol-laden time-term in Mormon 8:6. Thus, with what appears to be a time-term more likely to have been composed by Mormon₂ rather than his son, Moroni₂ complied with his father's commands and recorded the last temporal-expression in the plates of Mormon.

The organized structure of the balanced and reversible (FDG[D]GDF) time-term letter-group and the precise and symbolic diction of its associated time-terms combine to report the official beginning and 400-year preservation of the NC era. The NC era context recorded in the plates of Mormon ranges from the rising of the sun on a day that ended the sign of a night without darkness to the day when Moroni₂ faithfully engraved the temporal-expression commanded by his father.

2.3.4 Remembered birth dates

The proposed year-term and time-term connections discussed above between the writings of Mormon₂ and Nephi₁ are consistent with another apparent connection. This one relates to their seemingly different use of omitted or H time-terms. In the plates of Mormon, the proposed time-term structural categories and the (FDG[D]GDF) time-term letter-group disregard all omitted time-terms. This method of time-term organization differs from the one used by Nephi₁, Jacob₂, and Jacob₂'s descendants in the small plates of Nephi. For them, H time-terms were structurally and symbolically significant.⁸⁷ Is it possible that the Book of Mormon, with its other links to the diction, structure, and symbolism of the small plates of Nephi, also was organized to view omitted time-terms as structurally and symbolically significant? The answer appears to be yes and the resulting placement pattern within this major division suggests its own symbolism.

When the Book of Mormon time-terms are categorized by all their analytical types, a variable sequence, non-balanced, and non-reversible GHGHEHF letter pattern appears. The four G time-terms establish Mormon₂'s age in various narratives and, thus, they all relate to his birth date.⁸⁸ Three H time-terms, if they are not disregarded, separate the two (G) letter-sets.⁸⁹ Hence, by using Nephi₁'s method for dealing with H time-terms, Mormon₂'s personal record may be understood as beginning with a balanced and reversible (GHG) time-term letter-group. This letter-group is followed by 13 more consecutive H time-terms, which may be considered to create and fill a central [H] letter-set.⁹⁰ The years associated with this [H] letter-set range from the war year in which Mormon₂ first served as a Nephite military leader to the last year that passed at the end of a ten-year treaty of peace between Nephites and Lamanites.

Following the central [H] letter-set, a standard short name or E time-term analytical type appears in the text: "from the coming of Christ".⁹¹ This time-term appears in the first temporal-expression of Mormon₂'s (BA[B]AB) year-term letter-group with which he concluded his book; so, it has a placement function and symbolic purpose at that point in the text. The E time-term is followed by 12 more H time-terms, which create and fill the final (H) letter-set in the Book of Mormon.⁹² The last time-term in the book is the one Mormon₂ apparently commanded his son to record, an altered name or F time-term: "since the coming of our Lord and Savior". This time-term appears in the last temporal-expression of the final (B) letter-set of Mormon₂'s concluding

⁸⁷ See Division 2.

⁸⁸ Mormon 1:2-3, 6, 15.

⁸⁹ Mormon 1:8, 11-12.

⁹⁰ Mormon 2:1-3:4.

⁹¹ Mormon 3:4.

⁹² Mormon 3:7-6:5.

(BA[B]AB) year-term letter-group. These two time-terms appear in temporal-expressions that relate the passing of 360 and 400 NC calendar years from the Messiah's birth date.

Thus, all six express time-terms in the Book of Mormon indicate the measurement of years from the birth date of a mortal child. Mormon₂ and Jesus were mortal beings, born of mortal mothers hundreds of years apart on different, but specific days. The four G time-terms express the measurement of years from the birth date of Mormon₂ and the E and F time-terms express the measurement of years from the birth date of Jesus. If a regular capital letter V were used to represent each of these birth related time-terms and if Nephi₁'s method for treating H time-terms were used to comprehend the structure and meanings of time-terms in the Book of Mormon, then the resulting seven-part placement pattern in the book would be an alternating, balanced, and reversible (VHV[H]VHV) letter-group. In the first (VHV) letter-group, the V time-terms occur in temporal-expressions that appear to measure years from Mormon₂'s exact birth date because, in Mormon 1:2 and 6, the difference between "about ten" and "eleven" years of age is expressed. In the second (VHV) letter-group, the V time-terms appear in temporal-expressions that measure years from the exact birth date of Jesus, "the day that the Lord should be born, because of the sign which had been given" or the day of his "coming".⁹³ NC calendar years measured from the birth date of Jesus also may imply NC calendar years measured from Mormon₂'s birth date. Moreover, Mormon₂'s diction and placement of express and omitted time-terms in the Book of Mormon may suggest that the birth date of Jesus was as familiar to him as his own.

In the books of Alma and Third Nephi, Mormon₂ gives the dates of other events in terms of the associated Judges or NC calendar years, numbered months within such years, and numbered days within the specified months.⁹⁴ The exact date of the Lamanite destruction of the rebellious Nephite city of Ammonihah is even given twice. Two other exact dates are described when unusual natural destruction and darkness begin and end the prophesied signs of Christ's death.⁹⁵ The Lehi and Judges calendars both were maintained by the Nephite priesthood on the birth date of Jesus.⁹⁶ The record keepers also could specify when nine years in each of those calendars had elapsed after his birth date and they recorded the ends of those years in their proper order.⁹⁷ Thus, it seems likely that the exact birth date of Jesus was recorded in those two calendars, at least, and was available to Mormon₂ in the official plates of Nephi.

Does Mormon₂ symbolize his birth date in the Book of Mormon? Does he also symbolize the birth date of Jesus? These questions cannot yet be analyzed because the temporal-expressions in Third Nephi have not been considered. The chronological symbolism in that book is addressed in later Parts of this Division. Nevertheless, the birth date questions are raised here because they are suggested by the alternative (VHV[H]VHV) letter-group. They are recognized here because of Mormon₂'s possible, alternative, adoption of Nephi₁'s method for treating H time-terms. Furthermore, the questions will arise again because of Mormon₂'s possible, alternative, adoption of Nephi₁'s method for organizing the narrative-links in the Book of Mormon.

⁹³ 3 Nephi 1:19; 2:8.

⁹⁴ Neither the number of months in a year nor the number of days in a month in these two eras is necessarily the same.

⁹⁵ Alma 10:6; 14:23; 16:1; 49:1; 52:1; 56:1, 42; 3 Nephi 8:5; 10:9.

⁹⁶ 3 Nephi 1:1.

⁹⁷ 3 Nephi 2:5-6; see also Division 1, Part 3, Section 3.7.5.

2.4 Narrative-link symbolism

Five linguistic types of narrative-links were used in the *Book of Mormon*: prepositions, verbs, conjunctions, participles, and adverbs.⁹⁸ The conclusion in Division 1, Part 5, was that narrative-links (whether considered by themselves or as five analytical types that could be combined with the analytical types of year-, time-, and number-terms) seemed to lack organized patterns within the plates of Mormon and Moroni. This seeming lack of systemization initially appears to characterize the three linguistic types of narrative-links that appear in the Book of Mormon: 19 prepositional or Q narrative-links, *in* (17), *of* (1), and *until* (1); 11 verbal or R narrative-links: *are* (1), *had passed* (8), *have passed* (1), and *passed* (1); and four participial or T narrative links: *being* (3) and *making* (1). A 20th Q narrative-link (*until*) appears in the final temporal-expression of Fourth Nephi.

2.4.1 Number pattern narrative symbolism

The purpose of a narrative-link is to connect a year-term to its associated narrative. Indeed, eight non-numbered or *H* expressions in the plates of Mormon only consist of a prepositional narrative-link and a year-term: *from year* (2); *in years* (1); *of years* (3); *to year* (2).⁹⁹ None of these expressions occur in Mormon₂'s concluding letter-groups. However, the numbers of narrative-links related to his concluding letter-groups create number patterns that may suggest additional narrative symbolism. Like the narrative symbolism of the numbers 33, 34, and 35 that were noted above in connection with Mormon₂'s concluding temporal-expressions,¹⁰⁰ the narrative-link numbers 19 or 20 (Q narrative-links), 11 (R narrative-links), and 4 (T narrative-links) appear to have had important meanings for the Nephites and converted Lamanites during the 35 years apparently symbolized by the temporal-expression number pattern.

In the 19th NC calendar year, Giddianhi, the governor of the Gaddianton robbers, commanded his armies to attack the unified forces of Nephites and converted Lamanites. "And great and terrible was the battle thereof; yea, great and terrible was the slaughter thereof, insomuch that there never was known so great a slaughter among all the people of Lehi since he left Jerusalem". The defenders finally prevailed and pursued the Gaddianton armies "to the borders of the wilderness". "Giddianhi, who had stood and fought with boldness, was pursued as he fled. And being weary because of his much fighting, was overtaken and slain". The robbers "did not come again to battle ... in the twentieth year".¹⁰¹

Over the following 11 years, the unity of the people of Nephi collapsed. In the 30th NC calendar year (19+11 = 30), the Nephites "were in a state of awful wickedness", which included the murder of "many" Christian preachers and the chief judge, and the attempt by some of the murderous elite Nephites to replace the chief judge with an anti-Christian king. The coup failed, but "the church was broken up in all the land save it were among a few of the Lamanites which were converted unto the true faith; and they would not depart from it".¹⁰² Based on this historical number pattern symbolism, the following four years (30+4 = 34) may be symbolized by the four

⁹⁸ See Division 1, Part 5.

⁹⁹ Mosiah 19:15; Alma 13:7, 9; 16:1; 3 Nephi 1:29; 4 Nephi 1:34. A ninth expression (*in years*) occurs in the small plates at 1 Nephi 18:17.

¹⁰⁰ See Sections 2.1.4 and 2.1.5 herein.

¹⁰¹ 3 Nephi 4:11-15.

¹⁰² 3 Nephi 6:14-7:13.

T narrative-links in the Book of Mormon. This reading moves the symbolism of the Lord's life and that of his New World believers through his death, resurrection, and appearance to the reunified Nephite and Lamanite believers "in the ending" of the 34th NC calendar year.¹⁰³

In the 31st NC calendar year ($20+11 = 31$), the Nephites "were divided into tribes, every man according to his family, kindred, and friends", but Nephi₃ "went forth among them ... and began to testify boldly ... [and] ... did minister with power and with great authority ... [a]nd he did also do many more miracles in the sight of the people, in the name of Jesus".¹⁰⁴ In this view, the following four years of the ministry of Nephi₃ ($31+4 = 35$) may be symbolized by the four T narrative-links in the book. By the time the 35th NC calendar year ended, "the disciples of Jesus [led by Nephi₃] had formed a church of Christ in all the lands round about".¹⁰⁵

Closely related to the foregoing proposals is the perspective that may be provided by the number pattern of Mormon₂'s 35 concluding year-terms. (Every narrative-link has a year-term and vice versa, but adjectival number-terms and time-terms are optional.) The Book of Mormon includes 21 A year-terms and 13 B year-terms. In the concluding year-term letter pattern, there are 22 A year-terms. When these number patterns are applied to the first 35 NC calendar years, the 21st year is one in which a new leader of the Gaddianton people named Zemnariyah ordered his armies "to lay siege round about the people of Nephi". The siege failed "because of [the] much provision which [the unified people of Nephi] had laid up in store, and because of the scantiness of provisions among the robbers". The resulting Nephite victory involved their interception of the Gaddianton retreat toward the wilderness, the taking of "many thousands which did yield themselves up prisoners", and the execution of Zemnariyah. "[T]hey did cast their prisoners into prison and did cause the word of God to be preached unto them. And as many as would repent of their sins and enter into a covenant that they would murder no more were set at liberty." The others "were condemned and punished according to the law", which presumably means they were executed. "And thus had the twenty and second year passed away". While these narratives correspond to the alternative 22 A year-terms, the entire process for separating the prisoners into two groups (the quick and the dead) seems to have taken three more years.¹⁰⁶

The 13 B year-terms possibly could be interpreted as relating to the "wars and contentions throughout all the land" in the 13th NC calendar year. This period of war was caused by "the Gaddianton robbers [who] had become so numerous and did slay so many people and did lay waste to so many cities and did spread so much death and carnage throughout the land" that the Nephites and believing Lamanites had to unify to defend themselves.¹⁰⁷ Alternatively, and in harmony with the interpretation of the narrative-link number pattern, the 13 B year-terms may be construed as the 13 years that followed the 21st or 22nd NC calendar year. In the 34th year ($21+13 = 34$), the great pyroclastic destruction that was considered one of the signs of the Messiah's death included the burial of four cities in the earth (perhaps in the wilderness of the Gaddianton robbers). The names of the cities were Gadiandi, Gadiomnah, Jacob, and Gimgimno.¹⁰⁸ In the 35th year ($22+13 = 35$), "as many as did come unto [the Nephite disciples] and did truly repent of their sins were baptized in the name of Jesus; and they did also receive the

¹⁰³ 3 Nephi 10:18.

¹⁰⁴ 3 Nephi 7:14-20.

¹⁰⁵ 3 Nephi 7:21-8:25; 11; 26:12-28:23; 4 Nephi 1:1.

¹⁰⁶ 3 Nephi 4:16-5:7.

¹⁰⁷ 3 Nephi 2:11-16.

¹⁰⁸ 3 Nephi 9:8.

Holy Ghost.”¹⁰⁹ The first steps of the unifying process were available to all who chose to be taught and truly repent of their sins, including, apparently, surviving Gaddianton robbers.

2.4.2 Narrative-link placement patterns

The 34 narrative-links in the Book of Mormon are combined into 20 letter-sets that comprise a variable sequence, non-balanced, and non-reversible (TRTQTQRQRQRQTQRQRQR) letter-group. The 35 narrative-links associated with the final year-term letter pattern¹¹⁰ are combined into 21 letter-sets that form a variable sequence, non-balanced, and non-reversible (QTRTQTQRQRQRQTQRQRQR) letter-group. The shorter letter-group may be considered to represent three balanced and reversible letter-groups, followed by a single (T) letter-set and a non-balanced and non-reversible letter-group: (TRT)(QTQ)(RQRQRQR)(T)(QRQRQR). Alternatively, the longer letter-group may be thought to represent three balanced and reversible letter-groups interspersed with two variable sequence letter-groups that are the reverse of each other: (QTR)(TQT)(QRQRQRQ)(RTQ)(RQRQR). Neither of these possible readings is particularly attractive or convincing from a structural standpoint and the associated narratives do not seem linked to the potential structural parallels. For example, the potential (QTR) and (RTQ) letter-groups in the second letter pattern may suggest parallelism or antithetical parallelism is at work, but the associated narratives are almost entirely unrelated.

- (Q) Ammaron completes the Nephite sacred record through the end of the 320th NC calendar year and then hides all the records in the hill Shim during the 321st NC calendar year
- (T) At about ten years of age, Mormon₂ is chosen by Ammaron as the fifth generation official Nephite record keeper
- (R) Ammaron commands Mormon₂ regarding his duties, which include the creation of his own record on blank plates of Nephi when he is about 24 years of age

* * *

- (R) Lamanites maintain the treaty of peace for a period of ten years, but after the tenth year has passed, the Lamanite king sends an epistle to Mormon₂ informing him that the Lamanites are preparing for war
- (T) The end of the treaty of peace and an interval of 360 years “from the coming of Christ” are noted; the Nephites prepare for war with the Lamanites
- (Q) Lamanites attack the Nephites in the 361st NC calendar year, but they are beaten and return to their own lands; Lamanites attack in the 362nd year and are beaten again; Nephites decide to attack the Lamanites; Mormon₂ refuses to lead the Nephite offensive of the 363rd year, which fails; the war continues with another Lamanite attack in the 364th year, but they are beaten again

Despite the lack of parallelism or antithetical parallelism in the narratives of the potential (QTR) and (RTQ) letter-groups, the QTRTQTQRQRQRQTQRQRQR letter pattern begins with a Q narrative-link just like Nephi₁’s narrative-link letter pattern. In addition, Mormon₂’s concluding letter pattern ends with a potential letter-group that duplicates the five-part, balanced,

¹⁰⁹ 4 Nephi 1:1.

¹¹⁰ This letter pattern begins in 4 Nephi 1:48.

and reversible (RQRQR) letter-group created by Nephi₁ for narrative-links in the small plates of Nephi. These potential clues to Mormon₂'s use of narrative-links warrant investigation.

Nephi₁'s two consecutive narrative-link letter-groups are (QUQUQ) and (RQRQR). The second of these letter-groups in the small plates of Nephi was completed by Jacob₂'s first verbal or R narrative-link, which apparently had been commanded by Nephi₁. The concluding (R) letter-set of this second letter-group was maintained throughout all the temporal-expressions recorded by Jacob₂'s descendants. Even Mormon₂ used an R narrative-link for his temporal-expression in the Words of Mormon, when he completed the temporal-expressions and filled the last space in the small plates of Nephi. Furthermore, when Mormon₂ apparently composed the final temporal-expression for Moroni₂ to record in the Book of Mormon, the essential narrative-link was a final verbal analytical type. Mormon₂ appears to have been aware of Nephi₁'s narrative-link placement patterns. Mormon₂ clearly understood how to compose a temporal-expression with a verbal or R narrative-link.

Prepositional or Q narrative-links appear in five letter-sets in the small plates of Nephi. In the (QUQUQ) letter-group in First Nephi, adverbial or U narrative-links alternate with Q narrative-links. The (RQRQR) letter-group extends from First Nephi through Second Nephi and into the first temporal-expression of the Book of Jacob and uses verbal or R narrative-links to alternate with Q narrative-links. The use of Q narrative-links in both of Nephi₁'s letter-groups and the separate use of U and R narrative-links with Q narrative-links in the small plates suggests the possibility that Mormon₂ may have done something similar in his personal book.

2.4.3 The legacy of Nephi₁'s narrative-link placement pattern

With year-terms, Mormon₂'s three express and consecutive letter-groups fully depict the symbolic structure of Nephi₁'s alternatively delimited letter-groups. However, with narrative-links, Mormon₂'s proposed way of honoring Nephi₁'s legacy appears to have involved two steps. First, Mormon₂ replicated Nephi₁'s separate use of Q narrative-links with two other types of narrative-links. In Mormon₂'s personal record, the additional types are T and R narrative-links. Second, Mormon₂ replicated the design of Nephi₁'s two express and consecutive (QUQUQ) and (RQRQR) letter-groups by creating two overlapping, alternatively delimited, balanced, and reversible letter-groups: (QTQ[T]QTQ) in Fourth Nephi and the Book of Mormon; and (RQRQRQR[Q]RQRQRQR) only in the Book of Mormon. Thus, Nephi₁'s year-term and narrative-link placement patterns appear to have been used by Mormon₂ to structure his own year-term and narrative-link placement patterns.

The proposed alternatively delimited narrative-link letter-groups of Mormon₂ are the least obvious of his concluding placement patterns. To see them requires both an understanding of Nephi₁'s alternatively delimited, symbolic, year-term letter-groups in First and Second Nephi and an application of Nephi₁'s structural design to the concluding narrative-links of Mormon₂. The textual fact of Mormon₂'s alternatively delimited (QTQ[T]QTQ) and (RQRQRQR[Q]RQRQRQR) letter-groups suggests that they may be as symbolic as Nephi₁'s.

Table 2.D of this Division lists the final 35 narrative-links in the plates of Mormon.¹¹¹ Quotations of secondary narrative language associated with each prepositional, verbal, or participial narrative-link are included in the table. Twenty-four of the 35 narrative-links compose the seven-part (QTQ[T]QTQ) letter-group. This letter-group is identified in the table as the “[T]-

¹¹¹ 4 Nephi 1:48-Mormon 8:6.

centered” group. The narratives related to the beginning and ending (Q) letter-sets have their Q narrative-links placed in single lined boxes, and the narrative associated with the central [T] letter-set has a T narrative-link placed in a double lined box. The number 24 appears to symbolize two intervals of years at the beginning and end of Mormon₂’s life.¹¹²

Thirty of the 35 narrative-links compose the 15-part (RQRQRQR[Q]RQRQRQR) letter-group. This letter-group is identified in the table as the “[Q]-centered” group. The narratives related to the beginning and ending letter-sets of this proposed letter-group have their R narrative-links placed in single lined boxes, and the narrative associated with the central [Q] letter-set has a Q narrative-link placed in a double lined box. The number 30 appears to symbolize an interval of years that starts with Ammaron’s concluding record of events in the 320th NC calendar year. The interval ends with the peace treaty of the 350th year in which the land of Zarahemla was ceded to the Lamanites. For hundreds of years before the time of Mormon₂, the sacred records had been written and guarded in Zarahemla. However, because Ammaron obeyed the prompting of the Holy Spirit, the records had been safely hidden far from Zarahemla for three decades before the land was finally ceded to the Lamanites.¹¹³

Consistent with the overlapping symbolic numbers 24 and 30, the year-related narratives of the [T]-centered letter-group begin with a (Q) letter-set associated with Ammaron’s revelation to finish his record and hide all sacred records. The related narratives end with a (Q) letter-set filled with reports of the devastating battles that began in the 361st NC calendar year and continued intermittently through the 380th year. At that point, the Nephites had lost all their former lands, except for the land of Cumorah. The year-related narrative associated with the central [T] letter-set (astronomically, the sun at zenith or full moon of the lunation¹¹⁴) occurs in Mormon₂’s 16th year, when he “was visited of the Lord” and attempted to preach to his people, but was forbidden (apparently by the Lord who later removed the restriction¹¹⁵).

The year-related narratives of the [Q]-centered letter-group begin with an (R) letter-set related to Ammaron’s instruction that Mormon₂ should go to the hill Shim, take a blank plate of Nephi, and begin to engrave his own record when he was “about twenty and four years old”.¹¹⁶ The associated narratives end with an (R) letter-set related to the times of the final great Nephite battle and the concluding report of Moroni₂. The year-related narrative associated with the central [Q] letter-set, a second crucial point in Mormon₂’s life, occurs in connection with the 350th NC calendar year, when the Nephites attempted to create a lasting treaty with the Lamanites by relinquishing many of their former lands (including Zarahemla) into Lamanite control.¹¹⁷ Mormon₂ then reported that he spent the next ten years employing his people “in preparing their [remaining] lands and their arms against the time of battle”. While doing so, he was commanded by the Lord to “[c]ry unto this people: Repent ye and come unto me and be ye baptized and build up again my church, and ye shall be spared.” He obeyed the commandment, “but it was in vain... [T]hey did harden their hearts against the Lord their God”.¹¹⁸

¹¹² Mormon 1:3; 3:4, 7; 6:5.

¹¹³ 4 Nephi 1:48; Mormon 1:2-5; 2:28-29.

¹¹⁴ See Division 2, Part 2, Section 2.2.

¹¹⁵ Mormon 3:2-3.

¹¹⁶ Mormon 1:3.

¹¹⁷ Mormon 2:28-29.

¹¹⁸ Mormon 3:1-3.

In the year-term placement pattern of the final 35 temporal-expressions in these plates, the narratives of Mormon₂'s life are separated into three distinct periods: his early years (4 Nephi 1:48-Mormon 2:2); his middle years (Mormon 2:2-3:4); and his later years and death (Mormon 3:4-8:13). In the narrative-link placement patterns of these 35 temporal-expressions, the narratives of his life are separated by two crucial events. In the [T]-centered letter-group, the key event is his vision of the Lord, with the following command not to preach to the people: pre-vision events (4 Nephi 1:48-Mormon 1:14); vision and its aftermath (Mormon 1:15-19); events leading up to the battle at Cumorah (Mormon 2:1-6:4). In the [Q]-centered letter-group, the key event is the treaty of peace, with the following command from the Lord to preach to the people: pre-treaty events (Mormon 1:3-2:28); treaty and its aftermath (Mormon 2:28-29; 3:2-3); events leading to the total destruction of the Nephite people (Mormon 3:1-8:13). The year-term and narrative-link placement patterns serve to integrate Mormon₂'s personal record with that of his ancestor, Nephi₁, which immediately followed the Book of Mormon in the attached sets of plates. Mormon₂ again appears to have used a structural element, his narrative-links, to pay homage to the record keeping legacy of Nephi₁ and to teach his readers "after the manner of the learning of [his] people".

2.4.4 Prepositional narrative-link legacy

Centuries before the time of Mormon₂, Nephi₁ used narrative-links to create calendrical symbols.¹¹⁹ Mormon₂ appears to have honored that legacy by using narrative-links to create his own calendrical symbols. Nephi₁ used 12 prepositional or Q narrative-links in the small plates; Mormon₂ placed 20 Q narrative-links in his final 35 temporal-expressions. The placement patterns associated with the analytical or linguistic types of narrative-links in the plates of Mormon are depicted in Tables 1.A and 1.B in Part 1 of this Division. With respect to Mormon₂'s 35 concluding temporal expressions, one of the 20 Q narrative-links appears in Fourth Nephi and thus is textually dissimilar to the 19 Q narrative-links that follow in the Book of Mormon. When the diction and numbers of these 20 narrative-links are analyzed, they appear to create calendrical symbols. The following list itemizes the diction, numbers of identical and consecutive narrative-links, and textual references associated with the sequential placement of Q narrative-links in Mormon₂'s final 35 temporal-expressions.

Preposition	Number	Reference	Comment
<i>until</i> ¹²⁰	1	4 Nephi 1:48	first of 4 beginning prepositions
<i>in</i> ¹²¹	2	Mormon 1:8, 11	central 2 of 4 beginning prepositions
<i>of</i> ¹²²	1	Mormon 1:12	last of 4 beginning prepositions
<i>in</i>	13	Mormon 2:1-3, 16, 20, 22, 28; 3:7, 8; 4:1, 7, 15	central 13 of 20 prepositions
<i>until</i>	1	Mormon 4:16	first of 3 concluding prepositions
<i>in</i>	2	Mormon 4:17; 5:6	last 2 of 3 concluding prepositions

In this list, the 20 narrative-link prepositions (each either *in*, *of*, or *until*) may be thought to form three consecutive diction and number patterns. The diction placements seem to create

¹¹⁹ See Division 2, Part 2, Section 2.5.

¹²⁰ See Division 3, Part 1, Section 1.7.

¹²¹ See Division 2, Part 2, Section 2.5.2; Division 3, Part 1, Section 1.4.

¹²² See Division 3, Part 1, Section 1.5.

“units” somewhat like letter-sets or -groups. The first diction unit is (*until/in/of*), with the */in/* feature consisting of two consecutive and apparently identical narrative-links. The second or central diction unit is merely (*in*), but it consists of 13 consecutive and apparently identical narrative-links. The third or last diction unit is a simple (*until/in*), with the */in/* feature again consisting of two consecutive and apparently identical narrative-links. The *until* prepositions indicate the start of the first and third units, and the unique *of* preposition indicates the end of the first unit. The complete (*until/in/of*)(*in*)(*until/in*) diction pattern is neither balanced nor reversible. The number patterns (1/2/1) and (1/2), or (4) and (3), may be associated with the first and third diction units. The complete number patterns (1/2/1/13/1/2) or (4)(13)(3) also are non-balanced and non-reversible. Alternatively, if the diction units are disregarded and the separate major division placements are considered, the number pattern may be depicted as (1)(2/1/13/1/2), (1)(3/13/3), or (1)(19). In this view of the prepositions, the 19 Q narrative-links in the Book of Mormon appear in balanced and reversible (2/1/13/1/2) or (3/13/3) number patterns.

Like Nephi₁'s prepositional narrative-links, these prepositions appear to symbolize key Nephite calendar measurements; however, Mormon₂'s symbols, apparently composed hundreds of years after the time of Nephi₁, are somewhat different. Nephi₁ appeared to symbolize a 7-day week and a 9-day count within the context of 12 synodic months. Mormon₂'s diction seems to symbolize two identical (*until/in*) units, plus an *of* preposition that ends the first unit. The related number pattern may represent a basic Nephite calendar count (3+1+3 = 7). This number pattern suggests a 7-day week similar, if not identical, to the one revered by some of the Nephites¹²³ and the central or most important position is held by the number 1.

With the central (*in*) diction unit and the central position of 13 in the potential (2/1/13/1/2) and (3/13/3) number patterns in the Book of Mormon, the prepositions appear to symbolize a 13-day count that represents the 13 sacred day numbers of Mesoamerica.¹²⁴ With all 20 Q narrative-links, Mormon₂ appears to symbolize two distinctive 20-day counts. One is a simple count of 20 prepositions that represent the fundamental 20 sacred day names that combine with the 13 sacred day numbers in the 260-day ritual calendar of Mesoamerica.¹²⁵ The other is a Mesoamerican monthly calendar count beginning with the “seating” day of the month (the textually dissimilar Q narrative-link in Fourth Nephi) followed by the 19 numbered days of the month (1 through 19). These are represented by the 19 Q narrative-links within the Book of Mormon. This (“seating” plus 1 through 19) organizational form occurs with each of the 18 20-day calendar months of the Mesoamerican 365-day calendar.¹²⁶ No part of this 7-day, 13-day, and 20-day symbolic introduction to “the manner of the learning” of Mormon₂'s people with regard to calendar counts shows a spontaneous or slip-of-the-graver use of prepositional narrative-links. The textual facts are simple and clear. These narrative-links prepare Mormon₂'s readers for the somewhat different calendrical symbolism to be found in the following, then ancient, record of Nephi₁.

2.4.5 Verbal narrative-link legacy

Eleven verbal or R narrative links appear in the Book of Mormon. The first five of the R narrative-links make possible a seven-part, alternating, balanced, and reversible (RQR[Q]RQR)

¹²³ Jarom 1:5; Mosiah 13:16-19; 18:23.

¹²⁴ See Division 2, Part 3, Section 3.9.2.

¹²⁵ See Division 2, Part 3, Section 3.9.1.

¹²⁶ See Division 2, Part 3, Section 3.10; compare Section 3.11.

letter-group. These seven letter-sets may be a reminder of a Nephite 7-day week. This letter-group begins with Ammaron's command about the time Mormon₂ was to begin recording his memories on blank plates of Nephi. Mormon₂ received this command when he was "about ten years of age". The verbal or R narrative-link in Mormon 1:3 is a simple "are", but the implication is that Mormon₂ would know when he had lived "about [24] years" from his birth date. The second (R) letter-set also is composed of a single R narrative-link ("had passed"). With this second R narrative-link, Mormon₂ placed his appointment and first action as a military leader in an NC era context. He reported after these events that the 326th year came to a close. The third (R) letter-set is composed of two R narrative-links (both "had passed"). Mormon₂ reported his armies' victory over a larger Lamanite force (in the 330th year) and then noted that despite the victory, thousands of his people were "hewn down" over the following 14 years because they failed to repent. The fourth (R) letter-set in the beginning (RQR[Q]RQR) letter-group is composed of another single R narrative-link ("had passed"). The associated narrative reports that Mormon₂'s forces drove Lamanites and Gaddianton robbers from all the Nephite "lands of ... inheritance". The apparent Nephite victories mentioned in connection with the second, third, and fourth (R) letter-sets appear to be events that Mormon₂ would have recorded in accordance with Ammaron's command. The central [Q] letter-set in this beginning letter-group is used with a narrative about the Nephite armies' "retreat towards the north countries" because of the "exceeding great power" of the invading Lamanite armies.¹²⁷

The following six R narrative-links make possible a second, seven-part, alternating, balanced, and reversible (RQR[Q]RQR) letter-group in the Book of Mormon. Again, these seven letter-sets may be a reminder of a Nephite 7-day week. The first of these (R) letter-sets is composed of two R narrative-links (both "had passed"). Mormon₂ used these narrative-links to emphasize that ten years of peace apparently passed after the Nephites' treaty with the Lamanites that divided the Nephite "lands of ... inheritance". Thus, the (R) letter-sets that begin both (RQR[Q]RQR) letter-groups may be related to 10-year intervals of peace in Mormon₂'s life. The second (R) letter-set in the second letter-group has been used with regard to a Lamanite offensive into the northern lands that the treaty had given to the Nephites. After the 366th NC calendar year "had passed", the Lamanites conquered the cities of Desolation and Teancum, and then sacrificed the captured women and children. The third (R) letter-set in this letter-group is composed of another single R narrative-link ("passed"). The associated narrative reports a massive retreat of Nephites, during which "whatsoever lands we had passed by and the inhabitants thereof were not gathered in were destroyed by the Lamanites; and their towns and villages and cities were burned with fire".¹²⁸ The last (R) letter-set in the Book of Mormon is composed of two R narrative-links ("had passed" and "have passed"). These are the narrative-links for the year-related expressions that report the time of the great battle in which the Nephite people were decimated and Moroni₂'s final report of Nephite destruction. The central [Q] letter-set in this second (RQR[Q]RQR) letter-group is used with narratives about Nephite fury "because the Lamanites had sacrificed their women and their children". The Nephite armies, which at that time were not led by Mormon₂, "did go against the Lamanites with exceeding great anger, insomuch that they did beat again the Lamanites and drive them out of their [northern] lands". For eight years, the Lamanites prepared for their next offensive. Then, "they did come down against the Nephites with all their powers, and they were not numbered because of the

¹²⁷ Mormon 2:3.

¹²⁸ Mormon 5:5.

greatness of their number. And from this time forth did the Nephites gain no power over the Lamanites, but began to be swept off by them even as a dew before the sun”.¹²⁹

The Nephite downfall mentioned in connection with the second, third, and fourth (R) letter-sets of the second letter-group contrast with the Nephite victories indicated in the second, third, and fourth (R) letter-sets of the first letter-group. Similarly, the bitter retaking of north countries by Nephite armies in connection with the central [Q] letter-set of the second letter-group contrast with the Nephite retreat northward that Mormon₂'s armies undertook in connection with the central [Q] letter-set of the first letter-group. The antithetical parallelism of the narratives associated with (R) and central [Q] letter-sets in the two, seven-part (RQR[Q]RQR) letter-groups appears to have been carefully planned.

In connection with the Nephite downfall, Mormon₂ noted that “the Nephites repented not of the evil which they had done”, and “every heart was hardened, so that they delighted in the shedding of blood continually”, and “there never had been so great wickedness among all the children of Lehi, nor even among all the house of Israel, according to the words of the Lord, as were among this people”.¹³⁰ Some 15 years after the final battle, Moroni₂ reported that “the Lamanites have hunted my people the Nephites down from city to city and from place to place, even until they are no more. And great has been their fall; yea, great and marvelous is the destruction of my people the Nephites. And behold, it is the hand of the Lord which hath done it. And behold also, the Lamanites are at war one with another; and the whole face of this land is one continual round of murder and bloodshed, and no one knoweth the end of the war”.¹³¹

This descriptive specificity, woven into the record of Nephite destruction and emphasized by the antithetical parallelism associated with the (R) and [Q] letter-sets in the two (RQR[Q]RQR) letter-groups, contrasts with late 19th century CE myths about ancient Mesoamericans that had become “firmly entrenched in both the archaeological and popular literature” by the mid-20th century CE. In these myths, the Classic Maya were “a creative, intellectual people, led by priest-rulers, who somehow escaped the dreadful cycles of conflict so common elsewhere in the world”. Since the decipherment of the Maya script began to bear fruit in the latter half of the 20th century, these myths have been discarded.¹³² The ancient Maya now are seen as “a very violent, warmongering society” engaged in the “subjugation of neighboring city-states ... and capture of prisoners for enslavement and sacrifices”.¹³³ Indeed, “[i]t may well be that vengeful dynastic vendettas, total destruction of cities and the enslavement of whole populations occurred throughout Maya history”.¹³⁴ From Nephi₁'s writings to those of Moroni₂, the *Book of Mormon* is consistent with this more accurate view of ancient Mesoamerica.

2.4.6 Participial narrative-link legacy

Four participial or T narrative-links appear in three separate letter-sets within the Book of Mormon. The first of these (T) letter-sets is composed of two T narrative-links (both “being”).

¹²⁹ Mormon 4:15-18.

¹³⁰ Mormon 4:10-12.

¹³¹ Mormon 8:7-8.

¹³² David Webster, “The Uses and Abuses of the Ancient Maya,” 2-3 (prepared for *The Emergence of the Modern World* Conference, Otzenhausen, Germany, 04/2007), accessed at anth.la.psu.edu/documents/Webster_GermanyMaya.pdf; Aveni, *Empires of Time*, 190; Coe, *Breaking the Maya Code*, 145-258.

¹³³ Christopher Minster, “The Ancient Maya: Warfare”, accessed at thoughtco.com/the-ancient-maya-warfare-2136174.

¹³⁴ Simon Martin, “Under a Deadly Star—Warfare Among the Classic Maya” in Nikolai Grube, ed., *Maya: Divine Kings of the Rain Forest* (Cologne: Konneman, 2000), 176, quoted in Webster, “The Uses and Abuses of the Ancient Maya,” 3.

The temporal-expressions describe Mormon₂'s age: "about ten" when Ammaron visited him, presumably after traveling northward from the Nephite capitol, Zarahemla; and "eleven", when Mormon₂'s father "carried" him "into the land southward, even to the land of Zarahemla". The central [T] letter-set is composed of a single T narrative-link ("being"). The associated narrative reports that Mormon₂, at the age of 15, "was visited of the Lord" and then attempted to preach, but his "mouth was shut". The final (T) letter-set also is composed of a single T narrative-link ("making"). The associated narrative expresses the number of years that had passed "from the coming of Christ". Thus, these T narrative-links all are associated with the Lord or one of his representatives and with year-related expressions that measure, respectively, the passing of time from the birth dates of Mormon₂ and Christ. The analysis would be incomplete, however, if the participial narrative-links were viewed as mere appendages to the proposed birth date symbolism of time-terms in Mormon₂'s personal record. A more accurate view would seem to be that the proposed birth date symbolism of time-terms is an adjunct to the actual birth dates symbolized by Mormon₂'s narrative-links. This topic is addressed in detail after the temporal-expressions associated with the birth date of Jesus have been presented in Part 3 of this Division.

The diction of the participial narrative-links also appears to be symbolic. Mormon 1:2 provides the following narrative: "Ammaron ... came unto me, I being about ten years of age". The year-related expression is "about ten years of age" and it is the object of the present participle *being*, the narrative-link. Together, the participle *being* and its object qualify the pronoun *I*, which refers to the proper noun *Mormon* in the previous verse. The pronoun *I* is part of the secondary language of the associated narrative. The function of the narrative-link "being" is to show the relation of the following year-term with the secondary narrative language. This relation may be depicted as: *I ... being ... years*. Webster's 1828 dictionary defines the participle *being* to mean "[e]xisting in a certain state".¹³⁵ Mormon₂ existed as a human "being", a child from his birth date until "about ten years of age", when Ammaron visited him. As will be proposed later in this Division 3, Ammaron apparently got to know Mormon₂ during that visit and, on a date of astronomical and ritual significance, officially appointed him to be the fifth generation Nephite record keeper and guardian of the sacred records.

Mormon 1:6 supplies the next associated narrative: "I being eleven years old was carried by my father into the land southward, even to the land of Zarahemla". The year-related expression is "eleven years old" and it is the object of the participle *being*, the narrative-link. Together, this participle *being* and its object qualify another pronoun *I*, which refers to *Mormon* in verse 5. Mormon₂ had been appointed to be the Nephites' official record keeper when he was "eleven years old" and "was carried" by his father to the land of Zarahemla. Mormon 1:15 gives the third related narrative: "I being fifteen years of age and being somewhat of a sober mind, therefore I was visited of the Lord". This year-related expression is "fifteen years of age". Together, this participial narrative-link *being* and its object qualify another pronoun *I*, which again refers to *Mormon* in verse 5. Mormon₂ had experienced four years of priesthood training and leadership in Zarahemla by the time he was "fifteen years of age" and "was visited of the Lord".

All three closely placed temporal-expressions and their associated narratives provide a symbolic antecedent to the fourth participial narrative-link (*making*), its year-related expression, and the associated narrative. Mormon 3:4 contains two year-related expressions: "after this tenth year had passed away, making in the whole three hundred and sixty years from the coming of Christ ... the king of the Lamanites sent an epistle unto me". The first year-related expression is

¹³⁵ Webster, *An American Dictionary of the English Language*, I: [248] (being).

“this tenth year” and its narrative-link is the verb *had passed*. This year-related expression is directly followed by the second: “making ... three hundred and sixty years from the coming of Christ”. The preposition *after*, the adverb *away*, and the adverbial phrase *in the whole* are part of the secondary language of the associated narrative. The function of the narrative-link “making” is to show the relation of the following year-term with the secondary narrative language. In this instance, the previous year-term is deemed to be secondary language for the second temporal-expression. This relation may be shown as: year ... *making* ... years. While it is clear that the passing of the tenth year of peace made a total of 360 years from the coming of Christ, the implication of all four participial narrative-links being considered together seems to be that Jesus was a mortal “being”, born of a mother as Mormon₂ had been. Their ages could be measured with the calendars of their fellow mortals. As mortal “beings”, they both were part of “the universe of things material or immaterial”.¹³⁶

When the possibility of a Mesoamerican context is considered, a further implication may be that the measurement of years from Christ’s birth was accomplished with three New World mathematical calendars in addition to the unique Nephite lunar calendars. The first of the mathematical calendars to be considered is the Mesoamerican civil calendar composed of 365-day years, with each of its 18 normal months composed of a “seating” day and 19 following days counted from 1 through 19,¹³⁷ and with a 19th short month composed of a “seating” day and four following days counted from 1 through 4; that is, $(18 \times 20) + 5 = 365$.¹³⁸ An interval of 360 civil calendar years, apparently mentioned with the participial narrative-link in Mormon 3:4, totals 131,400 days. Such a 365-day calendar appears to have been in use and counted carefully by priest-astronomers from at least the 7th century BCE.¹³⁹ Thus, during the time of Mormon₂ (from the 310th or 311th year to the 385th year from the coming of Christ), some kind of a Mesoamerican 365-day civil calendar seems to have been in use for a millennium or more.

The second mathematical calendar that may have been used to record birth dates was the Long Count calendar, in which each 360-day year or *tun* was measured precisely with 18 20-day months; that is, $18 \times 20 = 360$. In the five-part, b’aktun.k’atun.tun.winal.k’ in place notation of the Long Count calendar, an interval of 131,400 days or 365 tun could be depicted (horizontally and with modern numerals) as 0.18.5.0.0.¹⁴⁰ While Munro Edmonson proposed an official inauguration of the Long Count by the Olmec in 355 BCE, “[t]he documented use ... by the Olmec was from the first century B.C. to the thirteenth century A.D. The Yucatecan and Cholan Maya also used it from the third century A.D. until the seventeenth.” Such documented use often indicates that the Long Count, for those that used it, was supplementary to the much earlier Calendar Round composed of the 260-day ritual almanac and 365-day civil year. “[T]he real achievement of the Long Count was the production of complex, sophisticated, and astonishingly accurate astronomical records.”¹⁴¹ The existence and use of the 360-day *tun* also is consistent with the time of Mormon₂ and with his time-term emphasized report that 360 NC calendar years had passed away from the birth date of Jesus.

The third mathematical calendar that may have been used to record birth dates was the 260-day calendar. Mormon₂’s familiarity with such a calendar is indicated in the 13-day and 20-day

¹³⁶ *The Compact Edition of the Oxford English Dictionary*, I: 195 (being).

¹³⁷ See Section 2.4.4 herein.

¹³⁸ See Division 2, Part 3, Section 3.10.

¹³⁹ Edmonson, *The Book of the Year*, 20-21, 97-101.

¹⁴⁰ See Division 2, Part 3, Section 3.11.

¹⁴¹ Edmonson, *The Book of the Year*, 27-28, 100-01, 194-96.

counts symbolized by his 20 prepositional narrative-links discussed above. An interval of 131,400 days is equivalent to 505 260-day counts plus 100 days. The existence and daily use of the 260-day calendar appears to have begun earlier than either of the other two mathematical calendars.¹⁴²

One implication of the special diction and placement given to the passing of 360 NC calendar years may be that the Messiah's birth date was known and tracked in all three mathematical calendars and was understood in terms related to government, astronomy, and ritual, in addition to being recorded in the Lehi and Judges era lunar calendars that were unique to the Nephites.¹⁴³ Thus, the overriding message of the second temporal-expression in Mormon 3:4 may be one implied throughout the small plates of Nephi. The Nephite records of the Messiah's birth date and of the Nephite priest-astronomers' measurement of time up to, and away from, his birth date were detailed and trustworthy.

Later in this Division, when the inauguration of the NC era has been examined in Third Nephi and the yearly calendars associated with Mormon₂'s early years may be proposed, this source book will suggest that four dates are associated with the narrative-links in Mormon₂'s concluding personal record: the birth date of Jesus; the birth date of Mormon₂; the date of Ammaron's official appointment of Mormon₂ to be the Lord's fifth generation record keeping representative; and the date when Mormon₂ commenced his duties in the land of Zarahemla. In the narrative-links, Mormon₂ appears to have personalized his record in a way suggested by the personalization of the small plates of Nephi by Enos₂ and his descendants.¹⁴⁴

2.4.7 Birth dates in ancient Mesoamerica

Before leaving the birth date topics apparently associated with narrative-link and time-term symbolism, the practice of recognizing, remembering, and even recording birth dates in Mesoamerica may be noted. In Divisions 1 and 2 of this source book, proposals have been made regarding potential connections between *Book of Mormon* and Mesoamerican chronology, including the recording of dates that may have been important in Mesoamerican calendrical genealogy.¹⁴⁵ When the temporal issue is the recognition, remembrance, and recording of a birth date, the implied practice of the Nephites also appears to be consistent with the practice of at least some Mesoamericans.

A birthday remembrance or record requires a calendar for specifying the date of birth. Such a calendar, a sacred 260-day ritual almanac, appears to have existed in Mesoamerica for hundreds of years before the time of Mormon₂.¹⁴⁶ In this calendar associated with religion and ritual, "[e]ach day belonged to a god who took a lively interest in his duties" and provided a "strange semblance of predestination". For the Maya, the days themselves "were very gods", whereas for the later Aztecs, the days were "ruled" by gods. In these belief systems, "the luck of the day was a combination of the influences" of 20 sacred day names and 13 sacred day numbers.¹⁴⁷ "There is nothing like the 260-day divinatory cycle anywhere else in the world."

¹⁴² See Division 2, Part 3, Section 3.9.

¹⁴³ 3 Nephi 1:1; 2:6-8.

¹⁴⁴ See Division 2, Part 3, Sections 3.10; 3.12.

¹⁴⁵ See Division 1, Part 1, Section 1.2; Part 6, Section 6.5.3; Division 2, Part 2, Sections 2.5.3; 2.5.8; 2.5.9; 2.6; Part 3, Sections 3.1-3.4; 3.8-3.13; 3.15-16; 3.18.

¹⁴⁶ See Division 2, Part 3, Section 3.9.

¹⁴⁷ Thompson, *Maya Hieroglyphic Writing: Introduction*, 66.

This ritual almanac “is *the* centerpiece of the Maya calendar system, the single most important block of time they ever kept, and still do keep in areas remote from modern influence.”¹⁴⁸

Within the Mesoamerican “concept of eternal time”,¹⁴⁹ conception, pregnancy, birth, and death also seem to have been related to astronomy. “[O]ne of the stars in the sky [comes] back to earth as the soul” of a newborn. Souls of the dead apparently return to be stars in the sky and “the souls of the dead warriors and of women who have died in childbirth” become “stellar deities” with powers they exert on earthly inhabitants.¹⁵⁰ Sun and moon are involved, too. Among the Maya, eclipses “are often associated with crop failure and birth defects. Lunar eclipses are specifically regarded as damaging to fertility”.¹⁵¹ “Throughout the Maya area, eclipses are believed to cause illness and death and to be particularly dangerous to pregnant women”.¹⁵² Eclipses also were associated with infants suffering from “gastrointestinal problems”.¹⁵³ When conception, birth, and infancy are timed to avoid eclipses, detailed eclipse record keeping and prediction by priest-astronomers become crucial parts of priesthood, community, and family life.

The length of the 260-day ritual almanac also seems to have been associated with both human and agricultural fertility, including the duration of human pregnancy (nine synodic months is about 266 days).¹⁵⁴ Mesoamericans congregated to celebrate births, as well as marriages, other religious events, and festivals. For a birth, both a midwife and a priest-astronomer seem to have been involved. A birth ceremony appears to have existed, including a bath for the baby in the sweathouse and a sweatbath for the mother “to restore the ‘heat’ or energy that [she] lost during childbirth”.¹⁵⁵ A day name in the 260-day calendar, the child’s “birth name”, appears to have been given to the baby “presumably to reflect their date of birth or some hoped-for augury that would come from such an association”.¹⁵⁶ Uniform ceremonies, celebrations, name associations, and results of eclipse prediction need not be assumed; the opposite seems more likely. With the ritual almanac itself, Sir Eric Thompson noted that “[t]here is a striking disagreement as to the values of the days in terms of benevolence and malevolence”, even from village to village within a people speaking the same language.¹⁵⁷ A child also could be known by a “childhood” name and an elite child may have obtained a “throne name” at the time of accession.¹⁵⁸

¹⁴⁸ Aveni, *Empires of Time*, 197, italics in original.

¹⁴⁹ Thompson, *Maya Hieroglyphic Writing: Introduction*, 90. Compare 1 Nephi 10:19; Alma 7:20; 37:12.

¹⁵⁰ Thompson, *Maya Hieroglyphic Writing: Introduction*, 84-85.

¹⁵¹ Grofe, “Glyphs G and F: the cycle of nine, the lunar nodes, and the draconic month”, 143.

¹⁵² Susan Milbrath, *Star Gods of the Maya: Astronomy in Art, Folklore, and Calendars* (Austin: University of Texas Press, 1999), 27; Aveni, *Empires of Time*, 201-02.

¹⁵³ William Earl Beck, “Maya Eclipses: Modern Data, the Triple Tritos and the Double Tzolkin” (Electronic Theses and Dissertations, 2007, accessed at stars.library.ucf.edu/etd/3078), 20.

¹⁵⁴ Aveni, *Empires of Time*, 200; Edmonson, *The Book of the Year*, 98; Susan Milbrath, “Maya Astronomical Observations and the Agricultural Cycle”, 497-98; Thompson, *Maya Hieroglyphic Writing: Introduction*, 98.

¹⁵⁵ Mark Alan Wright, “A Study of Classic Maya Rulership” (Dissertation, University of California Riverside, 2011), 245, accessed at academia.edu; John Bierhorst, *The Mythology of Mexico and Central America* (New York: William Morrow, 1990), 30, 108.

¹⁵⁶ Stephen Houston, “‘Chronosophy’ in Classic Maya Thought”, in Kurt A. Raaflaub, ed., *The Adventure of the Human Intellect: Self, Society and the Divine in Ancient World Cultures* (Hoboken, New Jersey: Wiley-Blackwell, 2016), 204, accessed at academia.edu; Thompson, *Maya Hieroglyphic Writing: Introduction*, 66. Aveni, *Empires of Time*, 200.

¹⁵⁷ Thompson, *Maya Hieroglyphic Writing: Introduction*, 88.

¹⁵⁸ Wright, “A Study of Classic Maya Rulership” 54-55.

Some monuments in Mesoamerica provide “historical records of the births, accessions to kingship, conquests, and deaths of major dynastic rulers”.¹⁵⁹ A relatively early Classic period record is one in 397 CE mentioned by Karen Bassie-Sweet; she also noted another in 644 CE and a “third *k’atun* [60th 360-day calendar] anniversary of birth”.¹⁶⁰ Edmonson reported “the accession (or birth) and death of the occupant” of a tomb (426 and 474 CE). He also reported the apparent births, accessions, and deaths of two rulers as occurring, respectively, in 515, 525 (accession at about ten years of age), and 565 CE and in 774, 790 (accession at about 16 years of age), and 838 CE.¹⁶¹ Thus, from village to village, in towns and cities, perhaps particularly among the elite, some Mesoamericans appear to have recognized, remembered, and at times recorded birth dates in the 260-day, 365-day, and/or 360-day calendars. In any of such calendars, the birth date of Nephi₁’s elite descendant named Mormon₂ may have been recognized and recorded, and, depending on the calendar, he may have accurately described his age as “about ten years” when Ammaron’s visit with him began.

2.5 Temporal-expression symbolism

Part 6 of Division 1 introduced the use of a narrative-link as one of two elements of a temporal-expression in a year-related narrative (the other element being a year-related expression). In that analysis of the combined elements, both the structure and meaning of a temporal-expression were considered. Seven formal and nine informal structural categories of temporal expressions were identified. Each of the 16 structural categories fits within one of five organized placement patterns in the plates of Mormon. The numbers five, seven, and nine again appear to be chronologically symbolic. The definitions and placements of these structural categories were analyzed further in Part 1 of this Division. The five placement patterns were identified as: formal within-year expressions; formal year-end expressions; informal mortal-time expressions; informal referred-quantity expressions; and informal stated-quantity expressions. The 16 structural categories and five related letter patterns described in Part 1 are as follows.

Formal within-year: *A* = whole-year; *B* = commencement; *C* = latter-end

(*ABABAB*)(*C*)(*ABAB*[*C*]*BABA*)(*C*)(*BABABA*) // (*BABA*[*C*]*ABAB*) // (*ABABA*[*C*]*ABABA*)

Formal year-end: *D* = pass-away; *E* = thus-ended; *F* = making-in-the-whole; *G* = it-was

(*FE*) // (*D*[*E*]*D*) // (*G*) // (*DE*[*D*]*ED*) // (*G*) // (*D*[*F*]*D*)

Informal mortal-time: *H* = non-numbered; *J* = appended; *L* = explicit-yea

(*H*[*J*]*H*) // (*JHJ*[*L*]*JHJ*)

Informal referred-quantity: *M* = referred-year-relation; *O* = referred-years-relation; *P* = referred-time-event

(*O*[*P*]*O*) // (*MO*[*M*]*OM*) // (*PMPO*[*M*]*OPMP*) // (*OM*[*P*]*MO*) // (*MOM*[*P*]*MOM*)

Informal stated-quantity: *Q* = stated-time-relation; *R* = ordinal-year-event; *T* = cardinal-years-event

(*QT*[*Q*]*TQ*) // (*R*[*Q*]*R*) // (*T*) // (*QR*[*Q*]*RQ*) // (*TQ*[*T*]*QT*) // (*Q*[*R*]*Q*)

¹⁵⁹ Michael John Grofe, “The Serpent Series: Precession in the Maya Dresden Codex” (Dissertation, University of California Davis, 2007), 8, accessed at academia.edu.

¹⁶⁰ Karen Bassie-Sweet, “The Tlaloc Cult at Palenque, Chiapas, Mexico”, 9, 12, 14, accessed at academia.edu. Houston views a *k’atun* anniversary as indicating that “the ruler was between his second unit of 20 years (40) and his third (60)”. Houston, “‘Chronosophy’ in Classic Maya Thought”, 203. See also Coe, *Breaking the Maya Code*, 199.

¹⁶¹ Edmonson, *The Book of the Year*, 33, 35, 39.

Since the temporal-expressions in the Book of Mormon are placed at the end of the plates of Mormon, they necessarily finish these five letter patterns. The temporal-expression placements within the Book of Mormon are summarized below.

Formal within-year expressions

Ten whole-year or *A* expressions conclude the final (*A*) letter-set in the last *ABABA* letter pattern in the plates of Mormon (Mormon 2:3, 16, 22, 28; 3:7, 8; 4:1, 7, 15; 5:6).

Formal year-end expressions

Nine or ten pass-away or *D* expressions and one making-in-the-whole or *F* expression occur as part of the final (*D[F]D*) letter-group (Mormon 2:2, 9, 15, 28; 3:1, 4; 4:10; 5:5; 6:5; 8:6).

Informal mortal-time expressions

Three appended or *J* expressions conclude the final (*J*) letter-set (Mormon 1:2, 6, 15).

Informal referred-quantity expressions

Six referred-year-relation or *M* expressions conclude the final (*M*) letter-set (Mormon 1:8, 11; 2:1, 20; 3:7; 4:17).

Informal stated-quantity expressions

Three stated-time-relation or *Q* expressions, one cardinal-years-event or *T* expression, and possibly one ordinal-year-event or *R* expression occur as part of the final *TQRQ* letter pattern in these plates (Mormon 1:3, 12; 2:2; 3:4; 4:16).

2.5.1 Potential material changes related to ordinal-year-event or *R* expressions

The first temporal-expression in Mormon 3:4 is “this tenth year had passed”. In Part 6 of Division 1, this expression was categorized as an informal, stated-quantity, ordinal-year-event or *R* expression because the determiner *the* in the ordinal number-term of a typical formal, year-end, pass-away or *D* expression had been replaced by the determiner *this*.¹⁶² Two more expressions in the plates of Mormon also were categorized as *R* expressions because of identical replacements: “this thirteenth year had passed” and “this nineteenth year did pass”.¹⁶³ These three expressions specify the conclusions of the 13th and 19th NC calendar years and the last year of a ten-year interval of NC calendar years. Each of these periods is mentioned in an earlier text; so, the determiner *this* is appropriate diction for the three *R* expressions.¹⁶⁴

In Part 1 of this Division, the materiality of the change in diction was questioned because each of these *R* expressions has the four textual facts required to qualify as a *D* expression.¹⁶⁵ If the diction change were deemed to be immaterial, then the expressions would have to be deleted from the *R* category and added to *D* category. The letter pattern of the year-end expressions would not change, but the compositions of three (*D*) letter-sets would change because each would include one more *D* expression. The letter pattern of the stated-quantity expressions would change materially because three (*R*) letter-sets would be eliminated.

¹⁶² See Division 1, Part 6, Section 6.7 and Table 6.N.

¹⁶³ 3 Nephi 2:13; 4:15.

¹⁶⁴ 3 Nephi 2:11; 4:5-6; Mormon 3:1.

¹⁶⁵ See Division 3, Part 1, Section 1.8.2.

If the *R* to *D* change in classification were deemed to occur, then four additional letter patterns for stated-quantity expressions in the plates of Mormon appear to be possible. In each alternative, the pattern that follows or includes the cardinal-years-event or (*T*) letter-set created by the 400-year prophecy of Samuel₂ the Lamanite is modified. In the first alternative, the prophecy occurs in a standalone (*T*) letter-set that is followed by a seven-part letter-group.

(*QT[Q]TQ*) // (*R[Q]R*) // (*T*) // (*QTQ[T]QTQ*)

In the second alternative, the 400-year prophecy's (*T*) letter-set is combined with the following (*Q*) and (*T*) letter-sets in a three-part letter-group that is followed by a five-part letter-group similar to the one that begins the letter pattern.

(*QT[Q]TQ*) // (*R[Q]R*) // (*T[Q]T*) // (*QT[Q]TQ*)

In the third alternative, the (*T*) letter-set created by Samuel₂'s 400-year prophecy is combined with the following (*Q*) and (*T*) letter-sets in a five-part letter-group that is followed by a three-part letter-group.

(*QT[Q]TQ*) // (*R[Q]R*) // (*TQ[T]QT*) // (*Q[T]Q*)

Lastly, the 400-year prophecy's (*T*) letter-set is combined into four consecutive (*TQ*) letter-groups or a single alternating letter-group.

(*QT[Q]TQ*) // (*R[Q]R*) // (*TQ*)(*TQ*)(*TQ*)(*TQ*) or (*TQTQTQTQ*)

2.5.2 Narratives associated with stated-quantity expressions

Five potential letter patterns for the informal stated-quantity expressions are listed above in this Section 2.5. Their differences start with or follow the (*T*) letter-set initiated in Helaman 13:5. In that verse, Samuel₂ the Lamanite prophesies that “four hundred years passeth not away save the sword of justice falleth upon this people ... and nothing can save this people save it be repentance and faith on the Lord Jesus Christ”.¹⁶⁶ The letter patterns end with Mormon 4:16, a verse that includes the last stated-time-relation or *Q* expression in the Book of Mormon. In the 375th NC calendar year, the Lamanites “did come down against the Nephites with all their powers, and they were not numbered because of the greatness of their number. And from this time forth did the Nephites gain no power over the Lamanites, but began to be swept off by them even as a dew before the sun.”¹⁶⁷ The Lamanite's 400-year prophecy of Nephite destruction was approaching its fulfillment.

The narrative connection between the (*T*) letter-set created by the 400-year prophecy and the (*Q*) letter-set that specifies the NC calendar year in which the prophecy's inescapable fulfillment began to occur suggests that all five potential letter patterns should be examined for their internal narrative connections. Specifically, the narratives may be searched for clues that assist in identifying the more likely pattern to have been intended by Mormon₂'s various choices of temporal-expression diction and placement. The examination does not consider all 145 year-related narratives from Helaman 13:5 through Mormon 4:16 because they are not all relevant to the search. The relevant narratives are those associated with the 19 stated-quantity expressions that compose the final (*Q*), (*R*), and (*T*) letter-sets of the five potential letter patterns.

Table 2.E of this Division lists the 19 relevant temporal-expressions, together with quoted language from their associated narratives. The three structural categories of stated-quantity expressions are set forth and identified by italic capital letters: *Q* = stated-time-relation; *R* =

¹⁶⁶ Helaman 13:5-6.

¹⁶⁷ Mormon 4:16-18.

ordinal-year-event; and *T* = cardinal-years-event. A tilde (~) is used in the table to indicate when an *R* expression is removed from a letter pattern because it is categorized as a formal pass-away or *D* expression. The five potential letter patterns are listed in the table as Patterns 1-5. In each Pattern, the standalone (*T*) letter-set and/or the variously composed letter-groups are identified by single lined boxes, except that the potential last (*TQTQTQTQ*) letter-group is depicted only as subdivided by its four (*TQ*) letter-group components.

Ordinal-year-event expressions

In all five of the potential placement patterns, the initial part of each letter pattern is composed of two letter-groups: (*QT[Q]TQ*) // (*R[Q]R*). The second of these letter-groups is started and finished by the first two ordinal-year-event or *R* expressions in the plates of Mormon. These expressions are characterized by ordinal number-terms, express singular year-terms, and verbal narrative-links. Each expression indicates an action, state or event associated with the year quantified by the ordinal number-term. The verbs *is* and *began* occur as the narrative-links: “is the twenty and ninth year” and “the seventy and seventh year began”.¹⁶⁸ The associated narratives both describe times of relative peace when the Nephites were not under threat of attack from the Lamanites.

The plates of Mormon also may include three more ordinal-year-event or *R* expressions. These potential *R* expressions include two in Third Nephi and one in the Book of Mormon. However, just like formal pass-away or *D* expressions, they use the verbs *had passed* (twice) and *did pass* for their narrative-links. In Part 6 of Division 1, these three expressions were classified as *R* expressions because the determiner *the* in the ordinal number-term of a typical *D* expression had been replaced by the determiner *this*.¹⁶⁹ The three associated narratives describe times when the Nephites experienced a threat of attack: “the Nephites were threatened with utter destruction”; “the armies of the Nephites did return again to their place of security” but “the robbers did not come again to battle”; and “they were preparing to come again to battle against us”.¹⁷⁰ Thus, the verbal narrative-links and narratives related to the latter three *R* expressions are entirely different from the verbs and narratives associated with the initial two *R* expressions in the plates of Mormon.

Are the “times of peace” *R* expressions before the prophecies of Samuel₂ the Lamanite antithetical parallels of the “times of threat” *R* expressions after his prophecies? Are the narrative-links based on the verb *pass* clear indications that the replacement of *the* with *this* is immaterial and that the latter three expressions were intended to be categorized as pass-away or *D* expressions? The associated narratives do not appear to provide a decisive reason to choose either of the alternative categories.

Cardinal-years-event expressions

The plates of Mormon include nine cardinal-years-event or *T* expressions. These expressions are characterized by cardinal number-terms, express plural year-terms, and verbal narrative-links. They indicate an action, state, or event associated with the years quantified with a cardinal number. All six extant books in these plates include at least one *T* expression. The narrative-links are the verbs *lived*, *was*, *passeth* [not], *shall* [not] *pass*, *cometh*, *had* [not] *passed*, *are*, *kept*, and

¹⁶⁸ Alma 58:38; Helaman 11:21.

¹⁶⁹ See Division 1, Part 6, Section 6.7 and Table 6.N.

¹⁷⁰ 3 Nephi 2:13; 4:15; Mormon 3:4.

are.¹⁷¹ In the five potential placement patterns listed above, these nine expressions always occur in the same six (*T*) letter-sets. Each expression occurs in a narrative that may be related to the expectation or foreseeability of an event.

Mosiah 6:5. The fact that “king Benjamin lived three years” after enthroning his son may indicate that the enthronement occurred when king Benjamin’s death seemed to be imminent. His survival for another three years may not have been anticipated.¹⁷² The interval involves the mortal life of a Nephite king.

Alma 43:17. Moroni₁ “was appointed chief commander over the armies of the Nephites” when “he was only twenty and five years old”. The selection of such a young chief commander (“only”) may indicate that the appointment was not expected. The interval involves the mortal life of a Nephite military commander.

Helaman 13:5 and 9. The 400-year prophecy of Samuel₂ the Lamanite necessarily involved long-term prospects, but also immediate foreboding or hope, depending on the Nephites’ repentance. He may have been viewed as threatening new Lamanite attacks if Nephite change did not immediately begin to occur.¹⁷³ The interval, mentioned in two expressions, involves the mortal lives of the Nephite people.

Helaman 14:2. Samuel₂’s five-year prophecy of a night without darkness that would signify the night before the birth of Christ also may have angered faithless Nephites.¹⁷⁴ They immediately sought to kill him and later, when questions arose about the length of the five years he had prophesied, they set a date to kill every Nephite who believed in his prophecy.¹⁷⁵ Thus, believers and non-believers may have felt both hope and fear linked to the foreseeability of such a night. The interval involves the mortal lives of the Nephite people preparing for the sign.

3 Nephi 7:8. In the 17th NC calendar year, Nephites and converted Lamanites gathered themselves and their flocks, herds, grain, and other substance into a single land “to defend themselves against their enemies”, the Gaddianton robbers and murderers. As part of their preparation for war, the unified people “did repent of all their sins” and “did put up their prayers unto the Lord their God that he would deliver them”. Their strategy, fortifications, and armies proved effective and, by the end of the 25th NC calendar year, their enemies were either dead or converted.¹⁷⁶ However, after this hard fought victory, “the people of the Nephites did all return to their own lands”, “disputings” commenced, “the people began to be distinguished by ranks”, and “a great unequality in all the land” helped to cause the church to be “broken up ... save it were among a few of the Lamanites which were converted unto the true faith”. Some of the Christian preachers and the chief judge were murdered and the government was destroyed. In these difficult times, the narrative containing the sixth *T* expression notes, “yea, there were but few righteous men among them—and thus six years had not passed away since the more part of the people had turned from their righteousness”.¹⁷⁷ In light of the preceding unity and victory of the

¹⁷¹ Mosiah 6:5; Alma 43:17; Helaman 13:5, 9; 14:2; 3 Nephi 7:8; 28:3; 4 Nephi 1:20; Mormon 1:3.

¹⁷² See also Division 10, “The ‘Wrong King:’ A Textual Study of Mosiah 21:28 and Ether 4:1”.

¹⁷³ See also Division 10, “The 400-year Prophecies of Nephite Destruction and Extinction”.

¹⁷⁴ See also Division 10, “The Five-year Prophecy of Samuel the Lamanite”.

¹⁷⁵ Helaman 16:1-8; 3 Nephi 1:4-9.

¹⁷⁶ 3 Nephi 3:1-5:7.

¹⁷⁷ 3 Nephi 6:1-7:8.

people, Mormon₂'s note suggests that the Nephites' breakneck plunge into iniquity and tribalism in less than six years was unforeseeable. The interval involves the mortal lives of a large portion of the Nephite people.

3 *Nephi 28:3*. The next *T* expression quotes the risen Lord speaking to his 12 leading disciples among the Nephites. "Blessed are ye because ye desire this thing of me. Therefore after that ye are seventy and two years old, ye shall come unto me in my kingdom, and with me ye shall find rest." Their survival into old age, despite all the opposition they would face,¹⁷⁸ was promised. They were blessed with hope, assurance, and courage. The interval involves the mortal lives of a small group of Nephites.

4 *Nephi 1:20*. Amos₁ became the third generation Nephite record keeper from the Messiah's birth date. He "kept [the records] eighty and four years ... [a]nd there was still peace in the land save it were a small part of the people which had revolted from the church and took upon them the name of Lamanites". The prospect of Amos₁ living to such an old age seems to have been unanticipated. The disaffiliation of some from the church and their rejection of its governing power foreshadowed the Nephite problems of the fourth and fifth generations. The interval involves the mortal life of an official Nephite record keeper.

Mormon 1:3. With a final *T* expression, Mormon₂ reported that Ammaron commanded him to "remember" the events of his people and, "when ye are about twenty and four years old", to begin engraving his memories and current reports on blank plates of Nephi. Based on Mormon₂'s faithful performance of his other duties, Ammaron's assurance of Mormon₂'s survival well into adulthood had been foretold. That conditional prophecy of protection may have begun to be challenged by his contemporaries when Mormon₂, at the age of 15, was appointed to lead the Nephite armies into battle.¹⁷⁹ The interval involves the mortal life of another official Nephite record keeper.

The narratives associated with these nine *T* expressions all appear to involve the foretelling, expectation, or foreseeability of events. The first two and last two each relate to an interval in the mortal life of an individual Nephite. The second two (400-year intervals) involve the Nephite people as a whole. The second to last two intervals involve a large wicked portion of the Nephite people and a small group of righteous Nephites. The central *T* expression concerns a five-year interval in which the Nephite people prepared, righteously or wickedly, for the prophesied appearance or prophetic failure of a sign of the Messiah's birth. This balanced, narrative-oriented, nine-expression structure hardly seems accidental. The (*T*) and potential (*R*) letter-sets, however, when considered together, simply form an alternating TRTRTR letter pattern.

Stated-time-relation expressions

The plates of Mormon may include as many as 41 stated-time-relation or *Q* expressions. Unlike the previous two structural categories, these expressions are characterized by ordinal *and* cardinal number-terms, express singular *and* express plural year-terms, and prepositional rather than verbal narrative-links. Because of the prepositional narrative-links, these expressions show the relation of the mentioned year or years with some other secondary word or phrase in the text.

¹⁷⁸ "And they were cast into prison ... [a]nd the prisons could not hold them, for they were rent in twain. And they were cast down into the earth, but they did smite the earth with the word of God, insomuch that by his power they were delivered out of the depths of the earth. And therefore they could not dig pits sufficiently to hold them. And thrice they were cast into a furnace and received no harm. And twice they were cast into a den of wild beasts, and behold, they did play with the beasts as a child with a suckling lamb and received no harm." 3 Nephi 28:19-22.

¹⁷⁹ Mormon 2:1-2.

All six extant books in these plates include at least one *Q* expression. The potential *Q* expressions use six prepositions as narrative-links: *for*, *from*, *in*, *of*, *to*, and *until*. These prepositions are distributed in the temporal-expressions of the plates of Mormon as follows.

Book	<i>for</i>	<i>from</i>	<i>in</i>	<i>of</i>	<i>to</i>	<i>until</i>	Totals
Mosiah	0	0	3	7	0	0	10
Alma	1	1	6	7	1	2	18
Helaman	0	0	1	2	0	0	3
Third Nephi	0	0	1	4	0	0	5
Fourth Nephi	0	0	1	0	0	1	2
Mormon	0	0	1	1	0	1	3
Totals	1	1	13	21	1	4	41

Six of these potential *Q* expressions were identified in Part 1 of this Division as perhaps being misclassified: four in Alma, possibly part of a loosely defined “whole-year(s)” or *A* category; one in Third Nephi, possibly a commencement or *B* expression; and one in Fourth Nephi, possibly another “whole-year(s)” or *A* expression.¹⁸⁰ Assuming that any or all of these six potential *Q* expressions were misclassified, the resulting (*A*) and/or (*B*) letter-sets remain in the same positions in the letter patterns of the plates of Mormon.

The narratives related to the 41 potential *Q* expressions deal with events involving the Nephite people. A prophet, a king, or the Lord may be mentioned; peace, prosperity, or daily activities may be noted; or their numbers or diversity may be expressed. However, there is little indication, if any, of a placement structure associated with these narratives. The potential placement patterns only appear when (*Q*) letter-sets are interwoven with (*T*) and (*R*) letter-sets.

2.5.3 Placement pattern alternatives based on narratives

As many as 35 stated-quantity expressions precede the five potential placement patterns listed in Table 2.E. Only 31 of the 35 expressions appear to be definite stated-quantity expressions; the other four may have been misclassified and perhaps should be treated as whole-year or *A*, or “whole-year(s)” or *A*, expressions.¹⁸¹ The placement pattern of these expressions begins with a five-part, balanced, and reversible (*QT[Q]TQ*) letter-group. The first (*Q*) letter-set is composed of the initial temporal-expression in Mosiah 6:4. The first (*T*) letter-set is likewise composed of a single temporal-expression in Mosiah 6:5. The following central [*Q*] letter-set contains 16 or 20 consecutive *Q* expressions that begin in Mosiah 6:7 and end in Alma 28:10 or 30:4 (depending on whether the temporal-expressions in Alma 1:2, 23; 4:9; and 30:4 are categorized as *Q* or *A* expressions). The second (*T*) letter-set then is composed of the temporal-expression in Alma 43:17. As noted above, both of the *T* expressions in this initial (*QT[Q]TQ*) letter-group relate to an interval in the mentioned individual’s lifetime. The final (*Q*) letter-set is made up of seven consecutive *Q* expressions that begin in Alma 45:10 and end in Alma 52:14. Whether or not the four potentially misclassified expressions in this letter-group are treated as *Q* expressions, the pattern of letter-sets in this (*QT[Q]TQ*) letter-group remains the same.

The following, equally certain placement pattern is a three-part, balanced, and reversible (*R[Q]R*) letter-group. The pattern begins with a letter-set composed of the *R* expression in Alma 58:38. The central [*Q*] letter-set contains the three *Q* expressions in Helaman 3:1, 32, and 4:8.

¹⁸⁰ Alma 1:2, 23; 4:9; 30:4; 3 Nephi 6:17; 4 Nephi 1:24.

¹⁸¹ Alma 1:2, 23; 4:9; 30:4.

The final (*R*) letter-set is composed of a single *R* expression in Helaman 11:21. As noted above, both of these *R* expressions describe times when the Nephites apparently were not under threat of attack from their enemies.

Following these initial (*QT[Q]TQ*) and (*R[Q]R*) letter-groups, the five alternative placement patterns depicted in Table 2.E occur. In Pattern 1, three potential “threat” related (*R*) letter-sets occur in the assumed (*QR[Q]RQ*) and (*Q[R]Q*) letter-groups. These letter-groups respectively appear before and after the assumed (*TQ[T]QT*) letter-group. Is it likely that a *T* expression related to the foreseeability of a rapid Nephite societal disintegration was used in the same letter-group as three *T* expressions associated with the preservation of individual Nephites’ lives? At the least it is questionable, as is the classification of the three potential (*R*) letter-sets in Pattern 1.

Patterns 2-5 in Table 2.E assume that the three “threat” related (*R*) letter-sets in Pattern 1 are misclassified. In these alternative Patterns, the use of the determiner *this*, rather than *the*, in what otherwise would be considered pass-away or *D* expressions is deemed to be immaterial. Hence, the three expressions are categorized as formal year-end expressions instead of informal stated-quantity expressions.

When Patterns 2-5 are examined with regard to the placement of the seven remaining *T* expressions, the associated narratives provide additional clues as to the intended placement pattern. Like the first and second (*T*) letter-sets in Mosiah and Alma, the fifth (*T*) letter-set (composed of two *T* expressions in Third and Fourth Nephi) and the sixth and final (*T*) letter-set (composed of a single *T* expression in Mormon) all relate to intervals in the mentioned, righteous individuals’ lifetimes. Only in Patterns 3 and 5 are these “righteous Nephite’s lifetime” (*T*) letter-sets separated structurally from the *T* expressions that compose the prior (*T*) letter-sets in Patterns 1, 2 and 4. Moreover, in Pattern 3, the “righteous Nephite’s lifetime” (*T*) letter-sets help to create a concluding (*QT[Q]TQ*) letter-group like the initial (*QT[Q]TQ*) letter-group that begins the letter pattern of stated-quantity expressions.

Finally, Pattern 3 also places both of the central two (*T*) letter-sets into the same (*T[Q]T*) letter-group. The first of these (*T*) letter-sets is composed of three *T* expressions prophesying the Nephites’ destruction if they do not repent and have faith in Christ, and attesting to the quickly approaching sign of the Messiah’s birth. The second of these (*T*) letter-sets is composed of a single *T* expression detailing the rapid descent of the Nephites into wickedness and tribalism just a few years before the great destruction and darkness associated with the Messiah’s death and his subsequent glorious appearance to the believing survivors as their risen Lord. The related “wicked-destroyed” or “repentant-saved” narratives fit well in the (*T[Q]T*) letter-group. Hence, for purposes of further symbolic analysis, the proposed placement pattern of stated-quantity expressions in the plates of Mormon is deemed to be depicted by the following letter pattern.

(*QT[Q]TQ*) // (*R[Q]R*) // (*T[Q]T*) // (*QT[Q]TQ*)

As thus proposed, this temporal-expression structural pattern suggests that two more of the temporal-expressions originally categorized as stated-time-relation or *Q* expressions should be categorized as whole-year or *A* expressions. That is, the use of the determiner *this* rather than *the* in their number-terms also appears to be immaterial to the classification. The temporal-expression in Alma 4:9, “in this eighth year of the reign of the judges”, and the temporal-expression in 4 Nephi 1:24, “in this two hundred and first year”, both are considered *A* expressions in the following analysis. In each instance, the determiner *this* in the number-term of an expression that otherwise would be an *A* expression is considered immaterial. The eighth year of the judges mentioned in Alma 4:9 also is mentioned in Alma 4:6. The 201st NC calendar year

mentioned in 4 Nephi 1:24 is implied to be already in existence because the end of the 200th NC calendar year is noted in 4 Nephi 1:22. Hence, the use of *this* as a determiner is appropriate in both of these instances. The foregoing conclusions leave just four potential *Q* expressions with alternative categorizations: Alma 1:2, 23; and 30:4 (possibly *A* expressions) occur before Samuel₂ the Lamanite’s prophecies; and 3 Nephi 6:17 (possibly a *B* expression) occurs after his prophecies. To finalize the analysis of these four remaining potential *Q* expressions, the symbolism associated with number-terms must be studied.

In accordance with the analysis set forth above, the proposed temporal-expression structural patterns associated with the Book of Mormon may be summarized as follows.

Formal within-year expressions

Ten whole-year or *A* expressions conclude the final (*A*) letter-set in the last *ABABA* letter pattern in the plates of Mormon (Mormon 2:3, 16, 22, 28; 3:7, 8; 4:1, 7, 15; 5:6).

Formal year-end expressions

Ten pass-away or *D* expressions and one making-in-the-whole or *F* expression occur as part of the final (*D[F]D*) letter-group (Mormon 2:2, 9, 15, 28; 3:1, 4; 4:10; 5:5; 6:5; 8:6).

Informal mortal-time expressions

Three appended or *J* expressions conclude the final (*J*) letter-set (Mormon 1:2, 6, 15).

Informal referred-quantity expressions

Six referred-year-relation or *M* expressions conclude the final (*M*) letter-set (Mormon 1:8, 11; 2:1, 20; 3:7; 4:17).

Informal stated-quantity expressions

One cardinal-years-event or *T* expression and three stated-time-relation or *Q* expressions conclude the final (*QT[Q]TQ*) letter-group in these plates (Mormon 1:3, 12; 2:2; 4:16).

2.5.4 Number pattern symbolism in the temporal-expressions

The 21 formal expressions within the Book of Mormon include: ten within-year, whole-year, or *A* expressions; ten year-end, pass-away, or *D* expressions; and one year-end, making-in-the-whole, or *F* expression. The ten within-year expressions may be thought to represent Mormon₂’s age when he met with Ammaron and was chosen to be the fifth generation Nephite record keeper.¹⁸² Similarly, the 11 year-end expressions may represent Mormon₂’s age when he was officially appointed by Ammaron and moved to the land of Zarahemla.¹⁸³ The numbers 10 and 11 associated with these formal expressions provide a simple symbolism related to key events at the end of Mormon₂’s childhood.

The numbers 10, 10, and 1 also may be understood as 20 and 1. The number 20 could imply the base-20 or *vigesimal* system of numeration used most often in Mesoamerica. In the 1880s, Ernst Förstemann discovered evidence of this system in the Dresden Codex, one of the few surviving Maya bark paper books, and he “first pointed out how this system was utilized to

¹⁸² Mormon 1:2-5.

¹⁸³ Mormon 1:6-7.

record astronomical and chronological facts”.¹⁸⁴ When Mormon₂ was 11 years old, he was appointed at his childhood home, by Ammaron, to be the Lord’s next sacred guardian of the Nephite plates and history. A little later, but still in his twelfth year, he travelled with his father to the land of Zarahemla and undertook the duties of his crucial record keeping appointment. In that regard, the number 20 would have been particularly relevant.

Furthermore, for ancient Mesoamericans, the number 20 sometimes was identified by words meaning “man” or “one full count”. In either case, the connotation is the 20 fingers and toes of a human being.¹⁸⁵ Naturally, Mormon₂ considered himself to be such a being. But in his book, where time was measured both from his birth date and from the birth date of the Messiah, this number 20 may symbolize the mortal life of the Messiah, too. As part of this symbolic view, the number 1 then connects the mortal lives of Mormon₂ and the Messiah to Mormon₂’s ancestor Lehi₁, who was called to be a prophet of the Lord in the “first” year of the Jewish king Zedekiah. As part of Lehi₁’s vision of the heavenly throne, he saw “one” who descended “out of the midst of heaven” and “stood before [Lehi₁] and gave unto him a book and bade him that he should read”.¹⁸⁶ This “one” in the mortal life of Lehi₁ set in motion the events that brought Mormon₂’s ancestors to the New World and that led to the establishment of the Nephite people.

The 13 informal expressions in the Book of Mormon include: three mortal-time, appended, or *J* expressions; six referred-quantity, referred-year-relation, or *M* expressions; three stated-quantity, stated-time-relation, or *Q* expressions; and one stated-quantity, cardinal-years-event, or *T* expression. These 13 expressions also may be related to Lehi₁’s vision of the heavenly throne and his calling to be a prophet. The single T expression suggests that these expressions may be understood as 12 and 1. When the “one” descended from heaven, he was followed by “twelve others” who “came down and went forth upon the face of the earth”.¹⁸⁷

Mormon₂’s ancestor Nephi₁ was shown his own vision of “twelve others” following the mortal Messiah and an angel identified them as “the apostles of the Lamb”.¹⁸⁸ In Nephi₁’s vision, he also “saw the heavens open and the Lamb of God descending out of heaven” and appearing to “multitudes” of Lehi₁’s descendants. As part of the risen Lord’s ministry to these people, “twelve others ... were ordained of God and chosen” and the angel identified them as “the twelve disciples of the Lamb” and “these twelve ministers” of Lehi₁’s descendants.¹⁸⁹ Hence, the numbers 12 and 1 in a New World context also may symbolize the risen Lord, the first earthly mortal to be resurrected, and the 12 disciples he chose from among Lehi₁’s descendants.

The number 12 is a sum of the numbers 3, 6, and 3 that are associated with three different structural categories of informal expressions. These component numbers may be related to the mortality of the first twelve Nephite disciples who led the Lord’s New World church. During their ministries, the Lord visited and blessed them with regard to their mortal lives. Three of the disciples desired to continue their ministries on the earth until his return. The three mortal-time expressions appear to represent those three, whose mortal-lives were extended indefinitely by the Lord. They were transfigured, to be “changed in the twinkling of an eye from mortality to immortality” when the Savior returns “in [his] glory”. The other nine disciples desired that “after

¹⁸⁴ Morley, *An Introduction to the Study of the Maya Hieroglyphs*, iii; Coe, *Breaking the Maya Code*, 107-108.

¹⁸⁵ Closs, “The Mathematical Notation of the Ancient Maya,” 293; Fagan, *The Aztecs*, 214;

¹⁸⁶ 1 Nephi 1:4-15.

¹⁸⁷ Ibid.

¹⁸⁸ 1 Nephi 11:26-36.

¹⁸⁹ 1 Nephi 12:1-10.

we have lived unto the age of man ... our ministry wherein thou hast called us may have an end, that we may speedily come unto thee in thy kingdom". They were blessed to have their mortal lives preserved until they had reached at least 72 years of age.¹⁹⁰ The nine stated-quantity and referred-quantity expressions appear to represent those nine disciples whose mortal lives were preserved by the Lord for a numerable period of time.

The symbolism of the formal temporal-expressions in the Book of Mormon includes key aspects of Mormon₂'s life and most important mortal role; so, it seems reasonable to assume that the same is true of the symbolism of his informal temporal-expressions. In this regard, the numbers 12 and 1 may symbolize his official position with respect to the leading 12 disciples. The Nephite official record keeper may have been associated with, but separate from, the governing 12. This connection of the 12 and 1 number pattern to a description of Mormon₂'s official position is proposed on three textual grounds.

First, as the initial nine disciples passed away, "there were other disciples ordained in their stead" to govern, sustain, and develop the church.¹⁹¹ Hence, long before the time of Mormon₂, nine of the initial 12 leading disciples had passed away and been replaced. During Mormon₂'s first four years in the land of Zarahemla, the Lord took away the three transfigured disciples from the people of Nephi because "wickedness did prevail upon the face of the whole land".¹⁹² Again, presumably, other disciples were ordained in their stead, so that 12 disciples were present to lead the church during Mormon₂'s lifetime.

Second, Mormon₂'s son Moroni₂ copied two of his father's letters into the Book of Moroni. These letters appear to have been written relatively late in Mormon₂'s life. In one letter, Mormon₂ did "rejoice exceedingly that your Lord Jesus Christ hath been mindful of you and hath called you to his ministry and to his holy work". He also counseled Moroni₂ about prohibiting the baptism of little children and eliminating disputes within the church. In the other letter, Mormon₂ encouraged his son to continue to "labor diligently" with their rebellious people.¹⁹³ These letters suggest that Moroni₂ held a position of leadership within the church and that the ministry of the Lord persisted among the Nephite people until their last great battle.

Third, Mormon₂'s description of the outcome of that battle refers to 23 large groups whose "ten thousand" people had been "hewn down" and "fallen". Just 13 of the group leaders were named by Mormon₂: he and his son Moroni₂, both of whom survived through the end of the battle, and 11 others who had perished during the battle: Gidgiddonah, Lamah, Gilgal, Limhah, Joneum, Cumenihah, Moronihah, Antionum, Shiblom, Shem, and Josh.¹⁹⁴ These 13 individuals may have been named by Mormon₂ because they were the leading disciples of the church: Mormon₂, as the official record keeper, and the 12 who then made up the governing body of ministers. Mormon₂, who had survived at the forefront of many battles with the Lamanites and was then more than 72 years of age, apparently died of his wounds sometime after the final great battle. Then Moroni₂ became the sole surviving Nephite record keeper and, to him, the 12 and 1 informal temporal-expression number pattern may have taken on an even more agonizing symbolic meaning. When he could comply with his father's commands, he wrote, "And I, even I,

¹⁹⁰ 3 Nephi 28:1-23.

¹⁹¹ 4 Nephi 1:14. A similar replacement process apparently occurred for a time with the risen Lord's apostles in Judaea (Acts 1).

¹⁹² Mormon 1:12-14.

¹⁹³ Moroni 8-9.

¹⁹⁴ Mormon 6:10-15.

remaineth alone to write the sad tale of the destruction of my people. But behold, they are gone, and I fulfill the commandment of my father.”¹⁹⁵

This analysis of the temporal-expression number patterns concludes by noting possible calendrical and astronomical links. The calendrical link relates to the first year of the reign of king Zedekiah. The lunar calendar of his kingdom, as elsewhere throughout much of the ancient Near East, probably was composed of 12 synodic months. Because this calendar year was about 11 days shorter than a seasonal year, the king and/or his priests occasionally proclaimed the intercalation of a 13th synodic month at the end of a regular calendar year. This proclamation kept the named months, agricultural activities, and feasts of spring and autumn in their respective seasons. The 12 and 1 number pattern may suggest this calendar, which appears to have been used at Jerusalem during the years of Lehi₁'s life and ministry there.¹⁹⁶ When Lehi₁ and his family left Jerusalem, they left the intercalated calendar behind.

What Lehi₁ and his sons may have found in the New World is an astronomical 1 and 12 number pattern. In Lehi₁'s vision of the throne of God, “one” descended to speak with him whose “luster was above that of the sun at noonday”. He was followed by “twelve others” whose “brightness did exceed that of the stars in the firmament”. They left their places in “the midst of heaven” and “came down and went forth upon the face of the earth”.¹⁹⁷ This imagery suggests images related to the Mesoamerican “sky band”, 13 constellations along the narrow band of the ecliptic. As the sun makes its annual passage along the ecliptic, it travels for about 28 days in each of these constellations (13x28 = 364). Of course, where the sun is positioned each day, the stars disappear in its brilliance. The other 12 Mesoamerican constellations are visible near dusk, during the night, or near dawn. Some, perhaps all, of the 13 Mayan constellations appear to be associated with pictures of animals. The Pleiades seem to be associated with one of the constellations and they may have been tracked as early as Olmec times (900-400 BCE). Some evidence also exists that the moon or a planet, in its separate travels along the ecliptic, could be thought of as being seated on a throne.¹⁹⁸

2.6 Introduction to number-term symbolism in Mormon₂'s concluding record

2.6.1 The analytical types

Six analytical types of number-terms were introduced in Part 4 of Division 1: stated ordinal name or K; stated cardinal name or L; referenced ordinal name or M; referenced cardinal name or N; referenced general name or O; and absent name or P. All six types appear in the small plates of Nephi and the plates of Mormon, but just four types (K, L, M, and O) appear in the plates of Moroni.¹⁹⁹ In the number-term analysis of the small plates of Nephi, the single P number-term was disregarded because, by itself, it provided no quantification.²⁰⁰ In the number-term analysis of the plates of Mormon, eight temporal-expressions with absent number-terms were labeled non-numbered or *H* expressions and were included in the mortal-time structural group of temporal-expressions. When combined with the absent number-term in the small plates

¹⁹⁵ Mormon 8:3.

¹⁹⁶ See Division 1, Part 3, Section 3.9.1; Division 2, Part 2, Sections 2.5.4, 2.5.8, 2.6.

¹⁹⁷ 1 Nephi 1:9-11.

¹⁹⁸ Milbrath, *Star Gods of the Maya*, 248-58.

¹⁹⁹ See Division 1, Part 4, Section 4.8.3.

²⁰⁰ See Division 2, Part 3, Section 3.2.

of Nephi, nine absent number-terms occur in the two attached sets of plates. Moreover, within the mortal-time category, 33 temporal-expressions occur in the combined sets of plates.²⁰¹ The mortal Messiah lived 33 years and a few days before his death.²⁰² Nine of the 12 leading disciples of his New World church lived at least 72 years (a multiple of 9) before they also died, entered their risen Lord's kingdom, and found rest with him.²⁰³ These numbers of temporal-expressions (33 and 9) again may appear to symbolize the mortal lives of the Savior and these nine disciples, to further connect the plates of Mormon with the small plates of Nephi, and to pay homage, in another symbolic way, to the legacy of Mormon₂'s ancestor and exemplar, Nephi₁.

2.6.2 The structural categories

Part 1 of this Division proposed three structural categories for the number-terms in the plates of Mormon: stated ordinal name or K; stated cardinal name or L; and common name or M (a combination of all three referenced number-term analytical types).²⁰⁴ In Mormon₂'s writings within the Book of Mormon, there are 15 K number-terms, 12 L number-terms, and six M number-terms.²⁰⁵ After Mormon₂'s death, his son Moroni₂ added a 13th L number-term as one of the "few things" he had "been commanded of [his] father" to add to these plates.²⁰⁶ The numbers of Mormon₂'s L and M number-terms (12 and 6), together with the additional L number-term added by Moroni₂, may suggest the "lunistellar" calendar of Egypt and "lunisolar" calendar of Judah, both of which were ancient in Lehi₁'s day. Nephi₁ appears to have symbolized them in the small plates²⁰⁷ and, here in the Book of Mormon, they seem to appear again.

The lunistellar calendar of Egypt. Twelve synodic months made up the typical lunar calendar year measured by the priest-astronomers; however, every few years, a 13th synodic month was added to the calendar so that the heliacal rising of Sirius, the brightest fixed star, could be observed in the last month of the year. This chronological system seems to have been maintained primarily on the basis of lunar and stellar observation.

The lunisolar calendar of Judah. As elsewhere in the Middle East, 12 synodic months made up the usual lunar calendar maintained by the priest-astronomers, but every few years, a 13th synodic month was proclaimed for the end of the year if the spring harvest that began the typical six-month festival/agricultural/ equinoctial semester was delayed. This chronological system appears to have been based on climatic, weather, agricultural, religious, and political considerations, in addition to lunar and solar observation.

Mormon₂'s 15 K number-terms may suggest the 15 temporal-expressions in the (BA[B]AB) year-term letter-group in Nephi₁'s writings, which emphasized the B year-terms associated with Lehi₁'s, Nephi₁'s, and other prophets' Messianic prophecies. The 15 K number-terms in the Book of Mormon may further suggest the related (1/6/1/6/1) number pattern of the 15 temporal-expressions in the small plates that Nephi₁ seems to have associated with his related prophecy of

²⁰¹ See Division 1, Part 6, Section 6.5; Division 3, Part 1, Sections 1.3.3 and 1.3.6. A 34th mortal-time expression (also a Nephite symbolic number related to the death and resurrection of the Savior) was added to the *Book of Mormon* in Moroni₂'s abridgment of the Book of Ether (Ether 9:24).

²⁰² 3 Nephi 8:1-10:13.

²⁰³ 3 Nephi 28:3.

²⁰⁴ See Division 3, Part 1, Section 1.2.3.

²⁰⁵ See Division 1, Part 4, Sections 4.8.2 and 4.8.3.

²⁰⁶ Mormon 8:1, 6.

²⁰⁷ See Division 2, Part 2, Sections 2.2.6 and 2.3.3.

the births of 12 apostles who would accompany the Messiah.²⁰⁸ Thus, these numbers (15, 12 or 13, and 6) of the K, L, and M number-terms in the Book of Mormon may reference the mortal lives of the Savior and his 12 apostles, venerate the foresight of Mormon₂'s two ancestors, Lehi₁ and Nephi₁, and introduce part of the ancient calendrical symbolism of the small plates of Nephi into the Book of Mormon.

2.6.3 Analytical proposals

The most basic proposal of the analysis in this Part, as in the analysis of the small plates, is that the diction of a number-term was chosen by the writer with two distinct purposes in mind. The more obvious purpose was to quantify, directly or by reference, a year or interval of years in the lifetime of an individual or in the related Lehi, Judges, or NC era context. The writer's less obvious and symbolic purpose was to use the diction of each quantifiable number-term as an arithmetic contribution to the combined meanings of textually related number-terms. That relatedness appears to be based on the textual features of temporal-expression diction, language typology, expression structure, and expression placement. The various analytical types of year-, time-, and number-terms and narrative-links, and the different structural categories of temporal-expressions—all apparently selected and placed by the writer as intentional textual distinctions—are used to define combinations of related number-terms.

The following number-term analysis also proceeds on the basis of several key assumptions described in Division 2, Part 3, Section 3.1. These assumptions relate to the creation and discussion of number-term combinations or Sets, the identification of their associated Set-sums, and the interpretation of Set-contexts as intervals of natural days. These assumptions and the associated discussions are not repeated here, but they constitute an essential foundation for recognizing the symbolism of Set-contexts proposed in this Part 2.

Furthermore, to comprehend that proposed symbolism, many of the 47 interval lengths set forth in Table 3.A of Part 3 of Division 2 must be understood as additional foundations of the following analysis. Some of such interval lengths are associated only with the peoples of Mesoamerica and all of such interval lengths could have been observed by the priest-astronomers of the Nephite people if Mesoamerica was their New World setting. As in the symbolic analysis of number-terms in the small plates of Nephi, the 47 listed intervals may be compared with the various Set-contexts suggested by the text of the Book of Mormon. In this Division 3, factors of close accords with SESIs and LESIs identified in Table 3.A of Division 2 are not included in the analysis because such intervals are, themselves, factors of planetary sidereal periods. A Set-context (an interval of natural days) implied by a Set-sum is considered to represent a “close” commensuration or accord with one of the 47 listed intervals (or its multiple and/or its half) when the difference in their lengths is less than a single day. A “near” accord or commensuration with a listed interval (or its multiple and/or its half) occurs when the difference is one day or more, but less than two days. These close and near accords relate to the precision of modern astronomical intervals, the vagaries of naked-eye observation, and the variable orbits of the earth, moon, and planets. Moreover, this study at times will note the existence of other commensurations or accords of two days or more. Such accords are not considered Set-contexts, but they may provide additional information for understanding Set-contexts.

²⁰⁸ See Division 2, Part 1, Sections 1.4 and 1.5; Part 2, Section 2.3.3.

2.6.4 Specified single years in the Book of Mormon

A single year is identified by its number-term in 15 of the 34 temporal-expressions in the Book of Mormon. These 15 temporal-expressions have stated ordinal or K number-terms and the time-terms all are omitted. Their diction and positions occur in the following order in this book.

1. The number-term “my sixteenth” is a personalized ordinal statement of age that is unique in the extant plates of Mormon. It is the first K number-term to appear in an informal stated-quantity or *Q* expression.
2. The number-term “the three hundred and twenty and seventh” is the first K number-term to appear in a formal whole-year or *A* expression.
3. The number-term “the three hundred and forty and fifth” is the second K number-term to appear in a formal whole-year or *A* expression.
4. The number-term “the three hundred and forty and sixth” is the third K number-term to appear in a formal whole-year or *A* expression.
5. The number-term “the three hundred and forty and ninth” is the first K number-term to appear in a formal pass-away or *D* expression.
6. The number-term “the three hundred and fiftieth” is the fourth K number-term to appear in a formal whole-year or *A* expression.
7. The number-term “this tenth” is the second K number-term to appear in a formal pass-away or *D* expression.
8. The number-term “the three hundred and sixty and first” is the fifth K number-term to appear in a formal whole-year or *A* expression.
9. The number-term “the three hundred and sixty and second” is the sixth K number-term to appear in a formal whole-year or *A* expression.
10. The number-term “the three hundred and sixty and third” is the seventh K number-term to appear in a formal whole-year or *A* expression.
11. The number-term “the three hundred and sixty and fourth” is the eighth K number-term to appear in a formal whole-year or *A* expression.
12. The number-term “the three hundred and sixty and sixth” is the third K number-term to appear in a formal pass-away or *D* expression.
13. The number-term “the three hundred and sixty and seventh” is the ninth K number-term to appear in a formal whole-year or *A* expression.
14. The number-term “the three hundred and seventy and fifth” is the second K number-term to appear in an informal stated-quantity or *Q* expression.
15. The number-term “the three hundred and eightieth” is the tenth K number-term to appear in a formal whole-year or *A* expression.

Despite the omission of time-terms in all 15 of these temporal-expressions, the year-related narratives, express number-terms, and express time-terms in nearby temporal-expressions make it clear that these 15 years are to be understood as having been measured in the NC era context. Even the year-related expression “my sixteenth year”, which measures time from Mormon₂'s birth date rather than the Messiah's, is followed immediately by a temporal-expression that specifies the end of 326 NC calendar years and connects Mormon₂'s age with the last two

temporal-expressions in Fourth Nephi, the last of which includes number- and time-terms specifying the 320th NC calendar year.²⁰⁹

2.6.5 The proposed NC calendar year

Five chronological issues related to the length and composition of a single NC calendar year have been introduced in previous Parts of this study and are summarized in this Section. The first two of these issues concern the express time-terms in 3 Nephi 2, where Lehi and Judges calendar years are last identified and the NC calendar is formally adopted.²¹⁰

A pivotal change in eras

The last time-terms to refer to the Lehi and Judges eras are not long names for either era. They do not occur in the order that the eras were adopted (Lehi, then Judges), but in the order that their respective calendar years terminated. The end of a Judges calendar year is noted first, with a personalized time-term that does not mention the Nephite judges: “an hundred years had passed away *since the days of Mosiah, which was king over the people of the Nephites*”; then, the end of a Lehi calendar year is noted with a short era name: “six hundred and nine years had passed away *since Lehi left Jerusalem*.”²¹¹ These specified year completions are followed in the next verse by the note that “nine years had passed away”, apparently as measured in both of these eras. The accompanying time-term is personalized to “the prophets” who had testified of a sign in the heavens at least since the time of Nephi₁.²¹² This 22-word time-term is the longest in the *Book of Mormon*: “from the time which the sign was given which was spoken of by the prophets that Christ should come into the world”. The long period of Messianic expectation ended with the sign of a night without darkness, but the measurement of time with both of the proposed Nephite 12-month lunar calendars did not end until nine of their respective calendar years had followed the appearance of the sign.

Then, the year-related narrative in 3 Nephi 2:8 describes the adoption of the NC era and its related calendar. “Now the Nephites began to reckon their time from this period which the sign was given, or from the coming of Christ; therefore nine years had passed away.” The time-term in this verse is the only one in the *Book of Mormon* that precedes its year-term and it is the only one with two temporal phrases connected by the conjunction *or*. By linking the two phrases, Mormon₂ was able to emphasize the life-saving importance of the sign of a night without darkness,²¹³ to state with certainty that it had ended an extensive “period” of Messianic expectation,²¹⁴ and to declare with equal certainty that a crucial new soul-saving time in the existence of mortals had occurred with the coming of the Messiah and the identification of his date of birth. All these unique textual facts in 3 Nephi 2:5-8 suggest that a pivotal event had occurred in Nephite time keeping some nine years after the Messiah’s birth date, when the NC era and its related calendar became the official chronological system of the Nephite people.

²⁰⁹ 4 Nephi 1:48; Mormon 1:2; 2:2; 3:4; 8:6.

²¹⁰ See Division 1, Part 3, Section 3.7.

²¹¹ 3 Nephi 2:5-6, italics added.

²¹² 2 Nephi 17:11-16; 26:3, 8.

²¹³ 3 Nephi 1:4-20.

²¹⁴ In Helaman 8:18, Mormon₂ refers to this period as “a great many thousand years before his coming”.

A new measurement system

The narrative in 3 Nephi 2:8 describes the change in chronological systems by using the verb *reckon*. The transitive verb *reckon* is defined in Webster's 1828 dictionary to mean "[t]o count ... number ... compute [or] calculate."²¹⁵ The use of this verb only occurs in two places in the *Book of Mormon*. The first use is in Alma 11 in connection with king Mosiah₂'s legal imposition of standardized systems for weighing gold and silver and equating the weights with each other and with an apparently well-established system for valuing "a measure of barley" and "a measure of every kind of grain". The reckoned measurement systems are two new ones (gold and silver) and an old one (grain). The only other use of the verb *reckon* in the *Book of Mormon* occurs in 3 Nephi 2 with the official inauguration of the NC era. In that chapter, the reckoned measurement systems are two old ones (the Lehi and Judges lunar eras) and a new one (the NC solar era). In other words, where the verb *reckon* appears in the *Book of Mormon*, the pattern of description is two similar things (new standardized metal weights or old chronological systems) that are counted, numbered, computed, or calculated in comparison with a third dissimilar thing (traditional grain measures or a new chronological system). None of these comparisons and reckonings appears to have been mentioned by accident or described in an unplanned way.

The processes of reckoning metal weights and a new Nephite era both required new naming practices and comparative enumeration. As noted in Part 3 of Division 1, the actions of naming or enumerating separately, while not included in Webster's definition of the verb *reckon*, are included in the first definition of the verb in the *Oxford English Dictionary*: "[t]o enumerate serially or separately; to name or mention one after another or in due order; to go over or through (a series) in this manner".²¹⁶ These definitions are noted to be obsolete; so, Webster may not have been familiar with them.²¹⁷ The noun *enumeration* means both "[t]he action of ascertaining the number of something" and "[t]he action of specifying seriatim, as in a list or catalogue".²¹⁸ These definitions appear to be pertinent to the use of *reckon* in Alma 11 and 3 Nephi 2.

A solar-based chronological system

In Parts 2 and 3 of Division 2, textual data were examined and arguments were made that the Nephites were careful observers of the moon and that the Lehi and Judges calendars were lunar calendars of similar length (12 synodic months). In Third Nephi, these old lunar-based eras apparently were replaced by a new, dissimilar, era measured from the Messiah's birth date. At that time, the Nephites appear to have adopted a solar-based era that would signify and honor the ancient vision of Lehi₁ regarding the Messiah's birth. More than 609 years before the inauguration of the NC era, Lehi₁ "saw one descending out of the midst of heaven ... [whose] luster was above that of the sun at noonday", who "came and stood before [Lehi₁] and gave unto him a book and bade him that he should read". Through this lustrous being's participation in mortality, he became, as Lehi₁ prophesied, the "prophet [whom] the Lord God [would] raise up among the Jews, yea, even a Messiah, or in other words, a Savior of the world".²¹⁹ Lehi₁ compared this heavenly being's appearance to the sun, not to the moon or stars. Thus, to honor

²¹⁵ Webster, *An American Dictionary of the English Language*, II: [429] (*reckon*).

²¹⁶ *The Compact Edition of the Oxford English Dictionary*, II: 2440 (*reckon*).

²¹⁷ In 2009, Skousen noted that "[o]ne of the most remarkable findings of the [Book of Mormon] Critical Text Project is the frequent occurrence of vocabulary from Early Modern English." Skousen, "Editor's Preface" in Skousen, ed., *The Book of Mormon: The Earliest Text*, xxxvii. By 2018, he had concluded that "virtually all the language of the original text of the book dates from the 1530s through the 1730s". Royal Skousen, "Summary" in Royal Skousen with Stanford Carmack, *The History of the Text of the Book of Mormon, Part Three*, iv.

²¹⁸ *The Compact Edition of the Oxford English Dictionary*, I: 879 (*enumeration*).

²¹⁹ 1 Nephi 1:8-9; 10:4.

both Lehi₁'s vision and prophecies of the mortal Messiah's birth, a new era would have been fitting for the Nephite people. This proposal suggests that during the nine years that followed the birth of the Messiah, a detailed reckoning of lunar- and solar-based chronological systems was undertaken by the Nephite priest-astronomers.

Numbering and dividing the new era calendar

The results of the new era's enumeration process may be inferred from the subsequent text in Third Nephi. Days in the NC calendar were numbered in the context of a month and calendar months were numbered within each year.²²⁰ This method of organizing the calendar is similar to that recorded for the Judges calendar,²²¹ which may have adopted its numbering from the Lehi calendar. However, the only reference to numbered intervals other than days within the Lehi era is a reference to an interval of "nine moons".²²² Nothing in the text states or suggests that the birth date of the Messiah occurred on the first day of a Lehi or Judges calendar month, or that it occurred within the first calendar month of a Lehi or Judges calendar year. This lack of evidence is not definitive, but it is consistent with the use of the verb *reckon* and the proposal that the NC calendar enumerated its first day and first month separately from the two previous eras.

Nephi₁'s chronological symbolism suggests that Lehi calendar years were measured with two six-month semesters.²²³ These six-month semesters may have originated with the ancient Near Eastern practice of maintaining an equinoctial, agricultural, and festival semester within each calendar year; so, at least some of the other holy days specified in the brass plates may have been maintained by the Nephites.²²⁴ This division appears to have been carried forward into the Judges calendar, where the year is clearly described with two divisions: a "commencement" and a "latter end".²²⁵ The NC calendar also is described as having "commencement" and "latter end" intervals,²²⁶ although the lengths of such divisions in a solar-based calendar need not have been identical to six synodic months. Indeed, if the new calendar were solar-based, the expectation would be that its divisions were not determined by the counting of synodic months, but by some other method related to a solar-based calendar. Lunar and solar observations could continue in six-month, 12-month, and 18-month intervals related to eclipse recording and prediction, without requiring the official solar-based calendar to include some sort of lunar intercalation.

With both proposed lunar era calendars, time also appears to have been divided, named, and enumerated by a system of 7-day weeks that included an expressly named seventh sacred day, a Sabbath day.²²⁷ This day counting system apparently operated independently from the monthly and yearly lunar counts of time. For hundreds of years before the birth of the Messiah, believing Nephites sought to maintain obedience to Mosaic law recorded in the brass plates (apparently including Sabbath day observance) as part of their religious practice and this continued after his birth date, too.²²⁸ During the period of three days of darkness following the death of the Messiah, he spoke to the survivors of the great natural disasters that had occurred and he commanded them

²²⁰ 3 Nephi 4:7, 11; 8:5; see also Division 1, Part 3, Section 3.9.3.

²²¹ See Division 1, Part 1, Sections 1.3; 1.5; 1.9; Part 3, Section 3.9.2.

²²² Omni 1:21.

²²³ See Division 2, Part 2, Sections 2.3.3; 2.5.4; 2.5.8; Part 3, Sections 3.1.7; 3.3.1-3.3.2; 3.6.3.

²²⁴ E.g., Mosiah 1-6; 11:20-17:20.

²²⁵ See Division 1, Part 6, Sections 6.2.2-6.2.4.

²²⁶ 3 Nephi 2:17; 4:1; 6:17; 7:23.

²²⁷ Jarom 1:5; Mosiah 13:16-19; 18:23, 25; Alma 31:12; 32:11; see also Division 1, Part 1, Section 1.9.4.

²²⁸ 2 Nephi 5:10; Jarom 1:5, 11; Alma 30:3; Helaman 13:1; 3 Nephi 1:24-25.

to “offer up unto me no more the shedding of blood; yea, your sacrifices and your burnt offerings shall be done away, for I will accept none of your sacrifices and your burnt offerings.”²²⁹ While this change may have affected some festivals and religious practices, and while the nouns *week* and *Sabbath* are not used in Mormon₂’s later books nor in the plates of Moroni, there does not appear to be any textual reason for assuming that the commandment of Sabbath day observance was done away or that the length of the Nephites’ 7-day week was changed to some other number of days. The textual fact is that that risen Lord required his New World believers to persevere in keeping his commandments, which implies that a 7-day week continued to be observed after the Lord’s visit to the Nephites.²³⁰

Reckoning a Nephite solar-based calendar

In the analysis of Nephi₁’s number-term symbolism, several of the proposed Set-contexts suggested that he was contrasting an Egyptian 365-day, solar-based, civil calendar (with which the family of Lehi₁ may have been familiar in Judah²³¹) and a Mesoamerican 365-day, solar-based, civil calendar (with its 18 20-day months and 19th 5-day month, its 260-day and 105-day divisions, and its initial or terminal naming alternatives).²³² Moreover, during the lifetime of Enos₂, a nephew of Nephi₁, Nephite priest-astronomers appear to have been familiar with the inauguration of a new, spring era, Mesoamerican civil calendar and with its summer era calendrical precursors.²³³ Such proposed familiarity by Nephi₁ and Enos₂ in the 6th and 5th centuries BCE suggests that Nephite priest-astronomers in the 1st century CE likely were aware of these solar-based measures of time and may have been concerned about the relationships of such measures with the new solar era that the Nephite leaders apparently decided to establish.

In addition to whatever political, ritual, and other societal steps were necessary to establish a new calendar among the Nephites, the reckoning process would seem to have involved at least two separate kinds of comparisons. First, Nephite priest-astronomers in a Mesoamerican context must have synchronized their accounts of the Messiah’s birth date, as recorded in the Lehi and Judges era lunar calendars, with a specific date in at least one of the pre-existing 365-day calendars. Those solar-based calendars appear to have been in use for hundreds of years before the identified birth date, but this synchronization by the priest-astronomers may not have been a straightforward matter. The occurrence of a night without darkness was immediately disputed among the Nephites;²³⁴ so, the design of a new calendar based on the existence of the night without darkness could have introduced a full day’s error into the count of days. The priest-astronomers seem likely to have gathered evidence for and against the miraculous night and, based on that evidence, Nephi₃, the Nephites’ new official record keeper, apparently determined that the night had, in fact, occurred.²³⁵

Second, the priest-astronomers probably felt some constraint to design the new solar-based calendar within the ancient traditions of the pre-existing calendrical systems for accurately predicting, observing, and recording a solar era. Those traditions would have suggested 20 sacred days because the birth involved a baby with 20 fingers and toes like almost all other mortals. The

²²⁹ 3 Nephi 9:18-22.

²³⁰ E.g., 3 Nephi 8:20-23; 9:1, 15-22; 12:46-47; 15:1-10; 18:22-25; 4 Nephi 1:12; Moroni 6:5-6.

²³¹ 1 Nephi 1:1-3; Mosiah 1:1-5.

²³² See Division 2, Part 3, Sections 3.2.10; 3.2.17; 3.2.20; 3.3.7; 3.3.10-3.3.11; 3.3.13; 3.3.15; 3.4.12; 3.4.14; 3.4.23.

²³³ For discussions regarding the components and development of this calendar, and the symbolism apparently created by Enos₂, see Division 2, Part 3, Sections 3.10; 3.12.

²³⁴ 3 Nephi 1:16-22.

²³⁵ 3 Nephi 8:1-2.

year would include 18 20-day months. The number 18 is a multiple of nine, perhaps suggesting the nine lords of the night and the underworld; so, the baby would not be an immortal, but would be subject to death. However, having descended directly from heaven in accordance with Lehi₁'s vision, the baby would have or have access to the power to overcome death, be resurrected, and appear again within a five-day period, as prophesied by prophets Nephi₁ found recorded in the brass plates: Zenoch, Neum, and Zenos.²³⁶ Thus, a new solar-based calendar could be composed of 18 20-day months, together with a 19th month of five days, and could be *entirely* symbolic of the Messiah's descent out of heaven, mortality, death, and resurrected return to heaven.

The traditional Mesoamerican system of solar-based calendars included two calendars that had reached significant milestones in 1-2 CE, which likely preceded the inauguration of the NC calendar, and two calendars that reached significant milestones in 5 CE, which may have followed the inauguration of the NC calendar. Three of these calendars were terminally named, summer era calendars and the fourth was an initially named spring era calendar. The first to be inaugurated was provisionally named the "Cuicuilco" calendar by Edmonson. The date of its proposed inauguration was the summer solstice in 739 BCE.²³⁷ Its New Year was Type I (Sun, Death, Monkey, or Owl?), but because it was terminally named, the year bearers were Type V (Serpent, Foot, Eagle, or Lord). The second to be inaugurated was provisionally named the "Olmec" calendar and its proposed inauguration date was 40 days before the summer solstice in 656 BCE.²³⁸ Its New Year also was Type I and its year bearers were Type V. The third summer era calendar was provisionally named the "Izapa" calendar. It appears to have been inaugurated on 1 May 520 BCE and its first summer solstice occurred 52 days later.²³⁹ Its New Year was Type II (Wind, Deer, Jaw, or Quake) and, because it was also terminally named, the year bearers were Type I (Sun, Death, Monkey, or Owl?).

The Cuicuilco calendar's 743-year summer era may have been confirmed by observation on the summer solstice in 5 CE, the day when an even 180-day misalignment had occurred between the calendar count of 743 365-day years (271195 days) and 743 tropical years (271374.9457 days). From the summer solstice inauguration date of the Cuicuilco calendar [6 Sun (1451684) Figure 3.4 in Division 2] to the summer solstice of 5 CE [6 Owl? (1723059) Figure 2.1 of this Part 2], a total of 271375 days had elapsed.

The Olmec calendar's 661-year summer era may have been confirmed by observation on the summer solstice in 6 CE, the day when an even 160-day misalignment had occurred between the calendar count of 661 365-day years (241265 days) and 661 tropical years (241425.0863 days). From the first summer solstice following the inauguration date of the Olmec calendar [5 Owl? (1481999) Figure 3.6 in Division 2] to the summer solstice of 6 CE [7 Sun (1723424) Figure 2.2 of this Part 2], a total of 241425 days had elapsed.

Similarly, the Izapa calendar's 520-year summer era may have been confirmed by observation on the summer solstice in 1 CE, the day when a 126-day misalignment had occurred between the calendar count of 520 365-day years (189800 days) and 520 tropical years (189925.9378 days). From the first summer solstice following the inauguration date of the Izapa calendar [5 Water (1531672) Figure 3.7 in Division 2] to the summer solstice of 1 CE [1 Eagle (1721598) Figure 2.3 of this Part 2], a total of 189926 days had elapsed.

²³⁶ 1 Nephi 19:6-21.

²³⁷ See Division 2, Part 3, Section 3.10.3-3.10.4.

²³⁸ See Division 2, Part 3, Section 3.10.5.

²³⁹ See Division 2, Part 3, Section 3.10.6.

The spring-era calendar was provisionally named the “Kaminaljuyu” calendar and it appears to have been inaugurated on the spring equinox in 433 BCE.²⁴⁰ Because it was an initially named calendar, its New Year and year bearers all were Type II (Wind, Deer, Jaw, or Quake). The Kaminaljuyu calendar’s 434-year spring era may have been confirmed by observation on the spring equinox in 2 CE, a day when the crucial 105-day misalignment had occurred between the calendar count of 434 365-day years (158410 days) and 434 tropical years (158515.1096 days). From the spring equinox inauguration date of the Kaminaljuyu calendar [7 Jaw (1563355) Figure 3.9 in Division 2] to the spring equinox of 2 CE [13 Deer (1721870) Figure 2.4 of this Part 2], a total of 158515 days had elapsed.

The statements in this Part 2 regarding specific spring equinox and summer solstice dates initially were based on the consistent dates used by Edmonson: 21 March 433 BCE and 395 CE; and 22 June 739 BCE and 177 CE.²⁴¹ These consistent dates may suggest that over the many centuries of solar observation, calendar maintenance, and record keeping, the dates of the equinoxes and solstices had become primarily a function of calendar maintenance and perhaps ritual, and secondarily a function of confirmatory sunrise and sunset observations.

Two other sources that estimate the time when solar events occurred in the past have since been consulted and compared. The first source was the 1963 volume prepared by William D. Stahlman and Owen G. Gingerich, *Solar and Planetary Longitudes for Years -2500 to +2000*, which was based on a computerized “set of approximation tables derived by P.V. Neugebauer” that he apparently published between 1914 and 1935.²⁴² From this source, rough one- or two-day approximations of the timing of astronomical equinoxes and solstices were compiled. The second source was the online computation program for the years 1000 BCE to 9999 CE provided by the Goddard Institute for Space Studies (“GISS”) on the NASA website.²⁴³ GISS expressly notes “two large sources of error” in its presumably more accurate calculations. First, given the parameters assumed in the program, “the error in the orbital events” may be as much as 2 hours and 52.8 minutes. Second, a “few” minutes of additional inaccuracy may be introduced because the program ignores “the existence of the Moon”.

Based on comparisons of these additional sources, this study identified the potential dates of astronomical equinoxes and solstices occurring within certain proposed Nephite calendar years mentioned in the *Book of Mormon*. Where there were uncertainties or disagreements between the two sources, the GISS calculations were adopted. In a Gregorian proleptic calendar year, the usual occurrences of the solar events (in Greenwich Mean Time or GMT) are 20 or 21 March and 22 or 23 September (equinoxes) and 22 or 23 June and 20 or 21 December (solstices).

Of course, the calculated occurrence of a solar event on a particular day in Greenwich Mean Time does not mean that it occurred on that same day in Mesoamerica. Approximately six hours separate the time recognized in most of Mesoamerica from Greenwich Mean Time. For example, the calculations used in the Stahlman and Gingerich volume suggest that the astronomical spring equinox in 2 CE may have occurred on 20 or 21 March²⁴⁴ and the GISS calculation tool suggests that the equinox may have occurred at 19:08 GMT or 1:08 pm CST on 20 March 2 CE. The 434-year measurement of the Kaminaljuyu calendar, however, required the spring equinox to be

²⁴⁰ See Division 2, Part 3, Section 3.10.7.

²⁴¹ Edmonson, *The Book of the Year*, 115, 118, 126, 128.

²⁴² Stahlman and Gingerich, *Solar and Planetary Longitudes for Years -2500 to +2000*, xv-xxx.

²⁴³ This calculation tool was accessed at data.giss.nasa.gov/modelE/ar5plots/srvemal.html.

²⁴⁴ Stahlman and Gingerich, *Solar and Planetary Longitudes for Years -2500 to +2000*, 307.

observed on 21 March 2 CE, the date when priest-astronomers may have confirmed by sunrise or sunset observations that the equinox had occurred as had been predicted. As another example, both calculation sources suggest that an astronomical summer solstice could have occurred during 22 June 5 CE, the date which the 743-year measurement of the Cuicuilco calendar required for the summer solstice that year. The GISS calculation tool computes the astronomical summer solstice to have occurred at 11:29 am GMT or 5:29 am CST on that date. This suggests that the priest-astronomers may have confirmed by sunrise or sunset observations that the solstice had occurred as had been predicted. These examples suggest further that long before the inauguration of the Cuicuilco calendar and for more than seven centuries after that inauguration, the sunrise and sunset positions of the sun each year had been determined sufficiently to confirm the precise calendar date on which an equinox or solstice was expected to occur and be recorded.

This brief discussion of the reckoning that may have been involved in creating a new solar-based calendar for measuring the NC era is preliminary. Additional issues suggested in Third Nephi will be taken up later in this Division. At this point, however, it is sufficient to propose that the NC calendar was a solar-based, 365-day calendar that may have been compared and/or connected in some manner with a Cuicuilco, Olmec, Izapa, and/or Kaminaljuyu calendar. The accuracy of the solar era predictions of these four calendars could have been proven to the Nephite priest-astronomers by such calendars' predictions and measurements of interrelated long term portions of Mesoamerican 1507-year solar eras. Such predictions and measurements also could have proven to them that the night without darkness had, in fact, occurred, and been observed and recorded accurately.

2.6.6 Specified intervals of years in the Book of Mormon

Intervals of more than one year are identified by their number-terms in 13 of the 34 temporal-expressions in the Book of Mormon. These 13 temporal-expressions all have stated cardinal or L number-terms and express plural or B year-terms. Their diction and positions occur in the following order. Their apparent intervals of days are based on the proposed use of a 365-day calendar and comparisons with the 47 interval lengths set forth in Table 3.A of Division 2.

1. The number-term “about ten” is the first L number-term to appear in an informal appended or *J* expression. The related time-term is personalized. The phrase “about ten”, by itself, could be construed as “close to” ten or possibly nine or eleven, but the uncertainty disappears when the NC era context is taken into account. Mormon₂ was ten years old during at least part of the 321st NC calendar year.²⁴⁵ He chose to express his approximate age by using the number 10. Ten NC calendar years would be 3650 days. That interval suggests close accords with the lengths of 41.5 mean sidereal periods of the planet Mercury (about 3650.7297 days) and 31.5 mean synodic periods of Mercury (about 3650.1425 days).
2. The number-term “about twenty and four” is the only L number-term in the Book of Mormon to appear in a cardinal-years-event or (*T*) letter-set. The related time-term is personalized. The phrase is quoted from Ammaron’s instructions to Mormon₂; so, Ammaron apparently chose the number 24. This is the only projected or future time mentioned in a temporal-expression in this book. Twenty-four NC calendar years would be 8760 days. This interval suggests a close accord

²⁴⁵ 4 Nephi 1:48; Mormon 1:2; 2:2.

with the length of 438 20-day cycles and a near accord with the length 15 mean synodic periods of the planet Venus (about 8758.8249 days). Furthermore, 8760 days is just two days less than a near accord with the length of 39 mean sidereal periods of Venus (about 8763.3452 days).

3. The number-term “eleven” is the second L number-term to appear in an informal appended or *J* expression in this book. The related time-term is personalized. Eleven NC calendar years would be 4015 days. That interval suggests near accords with the lengths of 136 mean synodic months (about 4016.1602 days), 147 mean sidereal months (about 4016.2840 days), and 147.5 mean draconic months (about 4013.8025 days).
4. The number-term “about four” is the first and only L number-term in this book to create a stated-time-relation or (*Q*) letter-set. The related time-term is omitted. The phrase “about four”, by itself, could be construed as “close to” four or possibly three or five, but the uncertainty disappears when Mormon₂'s age is taken into account. Between his ages 11 and 15, approximately four years of peace occurred.²⁴⁶ Four NC calendar years would be 1460 days. This interval suggests close accords with the lengths of 73 20-day cycles, four tropical years (about 1460.9688 days), 2.5 mean synodic periods of Venus (about 1459.8042 days), and 6.5 mean sidereal periods of Venus (about 1460.5575 days). This interval also suggests near accords with the lengths of 49.5 mean synodic months (about 1461.7642 days), 53.5 mean sidereal months (about 1461.7088 days), and four sidereal years (about 1461.0255 days).
5. The number-term “fifteen” is the third L number-term to appear in an informal appended or *J* expression in Mormon₂'s personal record. The related time-term is personalized. Fifteen 365-day years is 5475 days, an interval with no near or close accord with the length of any other interval listed in Table 3.A of Division 2.
6. The number-term “three hundred and twenty and six” is the first and only L number-term in this book to create a formal pass-away or (*D*) letter-set. The related time-term is omitted. An interval of 326 365-day years is 118990 days. This interval has no near or close accord with the length of any of the other 46 listed intervals in Table 3.A of Division 2.
7. The number-term “three hundred and thirty” is the second L number-term to appear in a formal pass-away or *D* expression in this book. The related time-term is omitted. The interval is 120450 days. It suggests close accords with the lengths of 4015 30-day cycles and 347.5 draconic or eclipse years (about 120450.4764 days).
8. The number-term “three hundred and forty and four” is the third L number-term to appear in a formal pass-away or *D* expression in the Book of Mormon. The related time-term is omitted. The interval is 125560 days and suggests a close accord with the length of 6278 20-day cycles.
9. The number-term “ten” is the fourth L number-term in this book to appear in a formal pass-away or *D* expression. The related time-term is omitted. Ten NC calendar years are 3650 days. As noted above, this interval suggests close accords

²⁴⁶ Mormon 1:6, 12, 15.

with the lengths of 41.5 mean sidereal periods of Mercury (about 3650.7297 days) and 31.5 mean synodic periods of Mercury (about 3650.1425 days).

10. The number-term “three hundred and sixty” is the first and only L number-term in the Book of Mormon to appear in a formal making-in-the-whole or *F* expression. The related time-term is an official NC era short name. The interval is 131400 days. This interval suggests close accords with the lengths of 14600 9-day cycles, 6570 20-day cycles, 4380 30-day cycles, and 365 Long Count (360-day) tuns.
11. The number-term “three hundred and seventy and nine” is the fifth L number-term to appear in a formal pass-away or *D* expression in this book. The related time-term is omitted. An interval of 379 365-day years is 138335 days and it suggests near accords with the lengths of 4684.5 mean synodic months (about 138,336.0489 days) and 5083.5 mean draconic months (about 138333.3204 days).
12. The number-term “three hundred and eighty and four” is the sixth L number-term to appear in a formal pass-away or *D* expression in the book. The related time-term is omitted. An interval of 384 365-day years is 140160 days and it suggests close accords with the lengths of 7008 20-day cycles, 4672 30-day cycles, and 5130 mean sidereal months (about 140160.1158 days).
13. The number-term “four hundred” is the seventh and final L number-term to appear in a formal pass-away or *D* expression in the Book of Mormon. The related time-term is an altered NC era name. The interval is 146000 days and it suggests close accords with the lengths of 7300 20-day cycles, 4944 mean synodic months (about 145999.2370 days), 824 six-month lunar semesters, and 412 12-month lunar years.

2.6.7 Alternative quantification of single years

Six referred-quantity expressions appear in the Book of Mormon. They do not state ordinal or cardinal number names; so, they may be interpreted as not providing numerical quantification to the number-term analysis. Alternatively, they may be assumed to repeat a previously stated ordinal or cardinal numerical quantification that is to be included in the analysis. The latter three of these expressions (“in *this* year”, “in *that* year”, and “in *this* year”²⁴⁷) are open to a simple quantitative interpretation. Each of their referenced number-terms points to a stated ordinal number-term in a previous whole-year or *A*, or stated-time-relation or *Q*, temporal-expression: “in *the three hundred and forty and fifth* year”, “in *the three hundred and sixty and first* year”, and “until *the three hundred and seventy and fifth* year”.²⁴⁸ Hence, if these three referenced number-terms were deemed to repeat the previous numerical quantification, they would repeat the cardinal numbers 345, 361, and 375 in the number-term analysis. Both alternatives—no quantification or repeated quantification—are considered in the analysis.

The first three of the referred-quantity expressions in the Book of Mormon (“in *this* year”, “in *this same* year”, and “in *that same* year”²⁴⁹) suggest a third alternative quantitative interpretation. Each of these referenced number-terms also points to the number-term in a previous appended or *J* temporal-expression: “being *eleven* years old” (referenced twice) and

²⁴⁷ Mormon 2:20; 3:7; 4:17, italics added.

²⁴⁸ Mormon 2:16; 3:7; 4:16, italics added.

²⁴⁹ Mormon 1:8, 11; 2:1, italics added.

“being *fifteen* years of age”.²⁵⁰ However, in these previous expressions, the referenced number names in the number-terms are cardinal, rather than ordinal: “eleven” and “fifteen”. The hypothetical phrases “in eleven year” and “in fifteen year” are not the diction one expects. With singular year-terms associated with the same age, one expects phrases referring to Mormon₂’s 12th year and 16th year of age. This hypothetical third alternative for quantification also requires the year-terms in the interpretation to be switched from singular to plural. In the following analysis, these three referenced number-terms are assumed to represent either no quantification or, respectively, the stated cardinal numbers 11, 11, and 15, or perhaps less likely because they are hypothetical, 12, 12, and 16.

A seventh temporal-expression includes Mormon₂’s personalized ordinal number-term “my sixteenth”.²⁵¹ One might consider that this number-term also could be interpreted as suggesting the quantification that he was 15 years old; however, he chose to describe a single year identified by an ordinal number name rather than to refer to the previous interval of 15 years. Hence, this stated ordinal number-term is not deemed to provide an alternative quantitative interpretation.

2.6.8 Possible combinations

The number-terms in the Book of Mormon that provide definite quantification include 15 stated ordinal or K number-terms and 13 stated cardinal or L number-terms. These 28 stated number names may be examined by themselves and by adding them into every possible combination for a total of 268,435,455 stated numbers or combination sums. The number-terms in this book also include six common or M number-terms that refer to prior stated number-terms. Because these M number-terms do not actually state an ordinal or cardinal number name, it is possible to consider them to be non-quantified number-terms. However, given the position and diction of these M number-terms, it is also possible to consider them to represent definite numbers. The six number names directly referenced by the M number-terms may be considered to create 16,911,433,728 more combinations with each other and the 28 stated number names. (This figure does not include the billions of additional combinations that could be created by the hypothetical alternative quantification of three of the M number-terms.) For each of the foregoing combinations, the process of combination assumes that a number name stated or referenced in a number-term is not used twice in a single combination and that the order of the number-terms is not consequential.

The following analysis, however, is based on the assumption that Mormon₂’s text controls the combination process. The order of number-terms and many other textual features are consequential. The significant textual facts are the diction, language typology, and placement of the temporal-expressions, as they may be further qualified by the secondary language of their associated narratives. Hence, in the following analysis, only 201 Sets, their 388 alternative Set-sums, and their 215 unique Set-sum values are proposed for detailed analysis. These numbers include all the possible Sets, alternative Set-sums, and unique Set-sum values created by the textual facts. The remaining billions of other possible combinations and their combination sums are deemed to be incidental to the text rather than controlled by it.

The sorting of the 201 proposed Sets proposed in this Part is dependent on the ink designs in the original and printer’s manuscripts. Some of the ink designs represent 34 K, L, and M

²⁵⁰ Mormon 1:6, 15, italics added.

²⁵¹ Mormon 2:2.

number-terms in the Book of Mormon. The diction, language typology, and placement of these number-terms—within the context of their associated narratives—create the distinctive chronological structure, the limited possibilities, within which to identify Sets. The Sets and their Set-sums are neither derived from, nor dependent on, near or close accords with the chronological intervals listed in Table 3.A of Division 2.

Just as the meanings of time-terms have been combined and their combined meanings suggest the proposed Nephite eras and era contexts, so the meanings of number-terms have been combined by addition and result in the proposed Set-sums. Then, the assumption that a Set-sum represents a certain number of natural days creates a temporal interval that may or may not imply one or more Set-contexts (near or close commensurations with other temporal intervals). All the Set-contexts, in turn, appear to represent aspects of Nephite chronological culture that are shorter than the era contexts and yet attest to the accuracy of the Nephites’ temporal prophecies and their careful measurement of the passing of time.

Thus, for example, while one purpose of Mormon₂’s express time-terms in the Book of Mormon appears to be the coordination of his age with the NC era context, a parallel purpose appears to be his verification of the priest-astronomers’ accurate measurement of that era context. His demonstration of that accuracy during his lifetime (and by implication, during the lives of the previous Nephite record keepers) seems to be one of the primary goals of his Sets, Set-sums, and Set-contexts. Indeed, when Mormon₂ says in the introductory declaration of his book that he is making “a record of the things which I have both seen and heard”, his account appears to include “the manner of the learning of [his] people” with regard to the day by day, week by week, month by month, and year by year accurate observing, measuring, reporting, and recording of their many interwoven indicators of the motion of time.

2.7 Sets, Set-sums, and Set-contexts in Mormon₂’s concluding letter-sets

The following analysis includes the results of the hypothetical alternative categorizations of temporal-expressions and the alternative values of the common or M number-terms discussed above.²⁵² The temporal-expression in Mormon 3:4 is analyzed as a likely pass-away or *D* expression and as a less likely ordinal-year-event or *R* expression. The temporal-expression in Mormon 4:16 is analyzed as a likely stated-time-relation or *Q* expression and as a much less likely “whole-year(s)” or *A* expression. The common or M number-terms in Mormon 1:8, 11, and 2:1 suggest alternative values because they each refer a singular year to a previous interval of years. Furthermore, when Mormon₂ completed his record, one of the express plural or B year-terms he had planned for his book was some 15 years away from being recorded by his son and his son might not survive to complete Mormon₂’s plan. Thus, the ending (B) letter-set in the Book of Mormon may be viewed as a Set that had been planned by Mormon₂ to have alternative Set-sum values: 384 in accordance with his final B year-term or 784 (384+400) as finished by Moroni₂. Consequently, the Set composed of all (B) letter-sets in the Book of Mormon, as one example, may produce the Set-sum 2197 at Mormon₂’s last engraving or the Set-sum 2597 when Moroni₂ fulfilled his father’s commands. Tables 2.F through 2.K of this Division include all these alternative categorizations and numerical values in the composition of their related Sets and Set-sums.

²⁵² See Division 3, Part 1, Section 1.3; Part 2, Section 2.6.7.

2.7.1 Set-contexts related to year-term letter-sets

Only two analytical types of year-terms (express singular or A; express plural or B) appear in the Book of Mormon and in Mormon₂'s related year-term letter pattern: (AB[A]BA)(BABABA)(BA[B]AB).²⁵³ The first (A) letter-set in the letter pattern occurs at the conclusion of 4 Nephi 1:48, when Ammaron closed his record after the end of the 320th NC calendar year. Mormon₂ was a child; so, the (A) and (B) letter-sets of his concluding year-term letter pattern all relate to events within his lifetime. Even his command that Moroni₂ close the record on the plates of Mormon with a final temporal-expression after the end of the 400th NC calendar year was issued during Mormon₂'s lifetime. The central [A] and [B] letter-sets in the first and last letter-groups of this pattern are identified by brackets. The related narratives of the central [A] letter-set describe the first war mentioned in Mormon₂'s personal record, during which a Lamanite attack northward was blocked by the Nephites. The related narratives of the central [B] letter-set describe the Lamanite success in driving the Nephites northward from all but the last few of their cities.²⁵⁴

Table 2.F of this Division lists the 31 proposed Sets of number-terms associated with the (A) and (B) letter-sets in the complete year-term letter pattern that begins with 4 Nephi 1:48 and ends with the concluding number-term in the Book of Mormon. These Sets produce 57 alternative Set-sums, 56 unique Set-sum values, and 117 Set-contexts (near or close accords with the lengths of various intervals noted in Section 2.6.3 above). The Set-sum 10 occurs twice in this table; so, its Set-contexts also are duplicated. The duplicated Set-sum and its Set-contexts are included in the table because they represent the third (A) letter-set and the third (B) letter-set in the proposed (BABABA) letter-group. A square box appears in Table 2.F under the category of Set-sums; this box represents a non-quantified alternative to the related Set-sums. Six unique Set-sums included in Table 2.F (10.7% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. Only close accords with definite day counts (e.g., 7-day week, 13-day cycle, or 260-day ritual almanac) are included in this table. Eighty-five (72.6%) of the 117 proposed Set-contexts represent either factors of close accords or actual close accords. The other 32 proposed Set-contexts (27.4%) represent near accords. Twenty-six Set-contexts (22.2%) involve factors of single intervals and 91 (77.8%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.F. Several of these numbers seem larger than one might expect if the Set-sums were merely random. The 20-day cycle is associated with eight Set-contexts (two factors and six close accords). The 360-day Long Count tun is related to five factors and one close accord. Thirteen close accords are linked to draconic month intervals, but only eight close accords are related to sidereal month intervals, even though these two interval types are almost the same length. Three Set-contexts are related to draconic or eclipse years, but none are linked to 13-sidereal month years or 12-synodic month years. The Venus sidereal period is associated with a total of seven Set-contexts, by far the largest number of any of the proposed planetary periods.

²⁵³ See Division 1, Part 2, Section 2.5.3 and Division 3, Part 1, Section 1.2.1.

²⁵⁴ Mormon 1:8, 11; 5:5.

2.7.2 Set-contexts related to time-term letter-sets

Four analytical types of time-terms appear in the Book of Mormon: standard short name or E; altered name or F; personalized name or G; and omitted name or H. Just three structural categories of time-terms occur: official name or D; altered name or F; and personalized name or G. In the identification of the proposed chronological structure, H time-terms are disregarded. The three letter-sets (G), (D), and (F) conclude a seven-part, balanced, and reversible (FDG[D]GDF) letter-group.²⁵⁵ This letter-group begins with the first time-term to name the NC era (an altered or F time-term in 3 Nephi 2:8). The letter-group ends with the altered name or F time-term in Mormon 8:6, which was added by Moroni₂ in accordance with his father's commands. One hundred nineteen express and omitted time-terms fill the chronological gap between 3 Nephi 2:8 and Mormon 8:6. A complete analysis of the Sets, Set-sums, and Set-contexts associated with these 121 temporal-expressions involves time-terms in Third Nephi, Fourth Nephi, and Mormon; so, most of that analysis will be presented in later Parts of this Division.

From a much more limited perspective, the letter pattern within the Book of Mormon itself has been examined with the additional assumption that H time-terms are to be considered part of the intended chronological structure. Hundreds of years before the time of Mormon₂, Nephi₁ used H time-terms and required subsequent writers in the small plates to use them as part of their contributions to the chronological structure. As Mormon₂ sought to honor his ancestor Nephi₁ and introduce the small plates that were to be attached to the plates of Mormon, he may have used H time-terms as alternative structural components of the Book of Mormon. This way of dealing with time-terms also would have prepared his readers for understanding the chronological structure and symbolism found in the small plates of Nephi.²⁵⁶

In this alternative view of time-terms in the Book of Mormon, the G time-term in Mormon 1:2 becomes the first G time-term in the first (G) letter-set in a variable sequence, non-balanced, non-reversible GHGHEHF pattern of time-term analytical types. As noted in Section 2.3.4 herein, the categorization and use of the seemingly different short name or E and altered name or F time-terms may be reconsidered. The four G time-terms in this book relate to the measurement of years from Mormon₂'s birth date. Similarly, the E and F time-terms in this book relate to the measurement of years from the Messiah's birth date. When a regular capital letter V is used to represent this similar birth slanted aspect of the express time-terms, the seven-part letter pattern that begins in Mormon 1:2 becomes an alternating, balanced, and reversible (VHV[H]VHV) letter-group.

The central [H] letter-set is based on 13 temporal-expressions that range from Mormon₂'s 16th year, when he was "visited of the Lord" and appointed to lead a Nephite army,²⁵⁷ through the end of the ten-year interval of peace resulting from the treaty between the Nephites and the Lamanites.²⁵⁸ In the year following Mormon₂'s appointment as military leader, his army met a Lamanite force that the Nephites were unprepared to fight; so, they retreated.²⁵⁹ Decades later, as the peace treaty came to an end, Mormon₂ united his people and they fortified their communities. In the two following years, he led the Nephites in victories over their enemies and in the

²⁵⁵ See Division 3, Part 1, Section 1.2.2.

²⁵⁶ See Division 2, Part 1, Sections 1.6; 1.8-1.10.

²⁵⁷ Mormon 2:1.

²⁵⁸ Mormon 3:4.

²⁵⁹ Mormon 2:3-8.

recovery of lands previously lost to the Lamanites. However, following those military victories, he “did utterly refuse from [that] time forth to be a commander and a leader of this people because of their wickedness and abomination.”²⁶⁰

Table 2.G of this Division lists the 21 proposed Sets of number-terms associated with the express and omitted time-term letter-sets in the Book of Mormon. These Sets produce 45 alternative Set-sums, 32 unique Set-sum values, and 148 Set-contexts. Twelve Set-sums (4, 15, 26, 28, 45, 360, 400, 2753, 3113, 3114, 3701, and 4437) occur at least twice each in this table; so, the related Set-contexts also are duplicated. Two square boxes appear in Table 2.G under the category of Set-sums; these boxes represent non-quantified alternatives to the listed Set-sums. Four unique Set-sums included in Table 2.G (12.5% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. With one exception (noted below), only close accords with definite day counts (e.g., 9-day cycle, 20-day cycle, or 360-day Long Count tun) are included in this table. One hundred thirteen (76.4%) of the 148 proposed Set-contexts represent close accords. The other 35 proposed Set-contexts (23.6%) represent near accords. Fifty-eight Set-contexts (39.2%) involve factors of single intervals and 90 (60.8%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.G. Several of these numbers seem to be larger than one might expect if the Set-sums were merely random. The 9-day cycle is linked with ten close accords. The 20-day cycle is associated with 11 Set-contexts. The 360-day Long Count tun is related to seven factors and three close accords. Twenty Set-contexts involve draconic month intervals, but only 13 Set-contexts are related to sidereal month intervals, even though these two interval types are almost the same length. Eighteen Set-contexts are related to synodic month intervals. The Venus sidereal period and the Mars synodic period are both associated with sizable numbers of factors. The Set-sum 820 is included in Table 2.G as a near accord with the definite 819-day cycle of Mesoamerica. This exception to the analytical rule for definite day counts has been made because of the apparent association of 20-day and 819-day cycles discussed in Division 2 with respect to the Set-contexts of the small plates of Nephi.²⁶¹

2.7.3 Set-contexts related to number-term letter-sets

Three structural categories of number-terms appear in the Book of Mormon: stated ordinal or K; stated cardinal or L; and common or M. The concluding number-term chronological structure in the plates of Mormon has been described as an (LKL)(MLM)(KLK[L]K) (MKM)(LKL) letter pattern that starts with a narrative-context in which the religious division in the Nephites reached a point when “the more wicked part of the people ... became exceeding more numerous than were the people of God”.²⁶² The pattern ends when Moroni₂, as the sole surviving Nephite record keeper, fulfilled his father’s command to report the entire destruction of their people prior to 400 NC calendar years passing away.²⁶³

Table 2.H of this Division lists the 38 proposed Sets of number-terms associated with the K, L, and M number-term letter-sets that begin with 4 Nephi 1:40 and end with the concluding number-term in the Book of Mormon. These Sets produce 55 alternative Set-sums, 49 unique

²⁶⁰ Mormon 3:4-16.

²⁶¹ See Division 2, Part 3, Sections 3.2.6; 3.2.15; 3.2.20; 3.3.11; 3.3.15; 3.4.4; and 3.4.23.

²⁶² 4 Nephi 1:40.

²⁶³ Mormon 8:6.

Set-sum values, and 109 Set-contexts. Five Set-sums (10, 16, 345, 361, and 2197) occur at least twice each in this table; so, their Set-contexts also are duplicated. Eight square boxes appear in Table 2.H under the category of Set-sums. These boxes represent non-quantified alternatives to the listed Set-sums. Five unique Set-sums included in Table 2.H (10.2% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. Only close accords with definite day counts are included in this table. Eighty-three (76.1%) of the 109 proposed Set-contexts represent close accords. The other 26 proposed Set-contexts (23.9%) represent near accords. Thirty-nine Set-contexts (35.8%) involve factors of single intervals and 70 (64.2%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.H. The 360-day Long Count tun is related to six factors and one close accord. Eleven Set-contexts involve draconic month intervals and 12 involve synodic month intervals; however, 16 Set-contexts seem to emphasize sidereal month intervals. Three Set-contexts are related to draconic or eclipse years and three more are related to 18-synodic month years, but none are linked to 13-sidereal month years. Once more, the Venus sidereal period appears with a much larger number of Set-contexts than any of the other planetary periods.

2.7.4 Set-contexts related to (Q) and (R) narrative-link letter-sets

Three analytical types of narrative-links also appear to provide chronological structure to the Book of Mormon: prepositions or Q; verbs or R; and participles or T. The associated narrative-link structure may be described as a variable sequence TRTQTQRQRQRQRRTQRQRQR letter pattern. If the Q narrative-link associated with the concluding year-term letter pattern is considered, the letter-sets create a variable sequence QTRTQTQRQRQRQRRTQRQRQR letter pattern. Like the letter-groups in the concluding year-term letter pattern that appeared to prepare the reader to understand Nephi₁'s symbolic, overlapping, alternatively delimited, year-term letter-groups, the last five (R) and (Q) letter-sets in both of the foregoing letter patterns imitate the (RQRQR) narrative-link letter-group that extends from First Nephi through Second Nephi and into the first temporal-expression of the Book of Jacob. In First Nephi, a (QUQUQ) narrative-link letter-group precedes the start of the (RQRQR) letter-group. Hence, both of Nephi₁'s narrative-link letter-groups alternate Q narrative-links with another type of narrative-link (either U or R).

That use of Q narrative-links with R and U narrative-links in Nephi₁'s separate letter-groups suggests that Mormon₂ may have separated his Q, R, and T narrative-links as well. To do so, however, he had to take Nephi₁'s structural concept of alternatively delimited year-term letter-groups and apply it to the narrative-links in the concluding narrative-link letter pattern in the plates of Mormon. In this somewhat imitative approach to the narrative-link letter-sets, Nephi₁'s express and consecutive (QUQUQ)(RQRQR) letter-groups become overlapping, alternatively delimited, balanced, and reversible letter-groups: (RQRQRQR[Q]RQRQRQR) in the Book of Mormon and (QTQ[T]QTQ) in Fourth Nephi and the Book of Mormon. The (RQRQRQR[Q]RQRQRQR) letter-group may be understood as two, seven-part, balanced, and reversible (RQR [Q]RQR) letter-groups on either side of a central [Q] letter-set; however, the narrative-link examples from Nephi₁'s writings may suggest an alternative structure composed of three, five-part, balanced, and reversible letter-groups: (RQ[R]QR)(QR[Q]RQ)(RQ[R]QR). Both of these alternative structures for the (Q) and (R) letter-sets in the Book of Mormon are included in the following analysis.

Table 2.I of this Division lists the 51 proposed Sets of number-terms associated with the (Q) and (R) narrative-link letter-sets in the Book of Mormon. These Sets produce 99 alternative Set-sums, 67 unique Set-sum values, and 200 Set-contexts. Because Table 2.I examines two alternative structures, 32 proposed Set-sums occur at least twice in this table; so, their related Set-contexts also are duplicated. No square boxes appear in this table under the category of Set-sums. Nine unique Set-sums included in the table (13.4% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. Only close accords with exact day counts are included in this table. One hundred thirty-three (66.5%) of the 200 proposed Set-contexts represent close accords. The other 69 proposed Set-contexts (33.5%) represent near accords. Nineteen Set-contexts (9.5%) involve factors of single intervals and 181 (90.5%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.I. The 7-day week and 20-day cycle are represented by relatively large numbers of close accords (11 and 16, respectively). Ten Set-contexts may be linked with the 360-day Long Count tun and five with the 260-day calendar. Thirty-three Set-contexts involve draconic month intervals and 31 involve synodic month intervals. These intervals are accompanied by 26 Set-contexts related to sidereal month intervals. Two Set-contexts are related to draconic or eclipse years, but in this table, two more Set-contexts are linked to 13-sidereal month years, three more are related to 6-synodic month semesters, one is associated with a 12-synodic month year, and three are linked to 18-synodic month years. Four Set-contexts each are associated with tropical and sidereal years. For the planetary periods, the larger numbers of Set-contexts relate to sidereal periods of Mercury and Venus and to synodic periods of Mercury, Mars, and Saturn.

2.7.5 Set-contexts related to (Q) and (T) narrative-link letter-sets

The seven-part, alternatively delimited, balanced, and reversible (QTQ[T]QTQ) narrative-link letter-group begins with the Q narrative-link associated with the year-term in 4 Nephi 1:48 and continues through the concluding Q narrative-link in Mormon 5:6. The central [T] letter-set in this pattern occurs at Mormon 1:15: “I being fifteen years of age and being somewhat of a sober mind, therefore I was visited of the Lord and tasted and knew the goodness of Jesus”. This is a fundamental narrative of Mormon₂'s youth. Thereafter, his life was not only directed by the commands he had received from Ammaron, who he understood to have been the Lord's representative, but by the revelations of the resurrected Lord. This letter-group, as it continues to build on the legacy of Nephi₁'s year-term structural complexity, also seems to have been meticulously planned. Indeed, the important symbolism of Nephi₁'s overlapping, alternatively delimited, year-term letter-groups suggests the possibility of vital symbolism as well in Mormon₂'s overlapping, alternatively delimited, narrative-link letter-groups.

Table 2.J of this Division lists the 14 proposed Sets of number-terms associated with the (Q) and (T) narrative-link letter-sets in this alternative letter pattern. These Sets produce 31 alternative Set-sums, 31 unique Set-sum values, and 78 Set-contexts. No square boxes represent non-quantified alternatives to the listed Set-sums in the table. Three unique Set-sums included in the table (9.7% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. Only close accords with exact day counts are included in this table. Fifty-eight (74.4%) of the 78 proposed Set-contexts represent close accords. The other 20 proposed Set-contexts (25.6%) represent near accords. Twenty-eight Set-

contexts (35.9%) involve factors of single intervals and 50 (64.1%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.J. Eleven of these Set-contexts involve draconic month intervals and ten involve sidereal month intervals. These intervals are accompanied by eight Set-contexts related to synodic month intervals. Three Set-contexts are related to draconic or eclipse years, but in this table, none are linked to 13-sidereal month years, 6-synodic month semesters, or 12-synodic month years. Two factors are related to 18-synodic month years. For the planetary periods, the larger numbers of Set-contexts again are associated with sidereal periods of Mercury and Venus and synodic periods of Mercury and Mars.

2.7.6 Set-contexts related to temporal-expression letter-sets

Three formal structural categories of temporal-expressions occur in the Book of Mormon: whole-year or *A*; pass-away or *D*; and making-in-the whole or *F*. Six (*A*) letter-sets are accompanied by seven (*D*) letter-sets and a single (*F*) letter-set. Four informal structural categories also occur in the book: appended or *J*; referred-year-relation or *M*; stated-time-relation or *Q*; and cardinal-years-event or *T*. A fifth informal structural category (ordinal-year-event or *R*) seems unlikely to be represented in Mormon 3:4, but in the off-chance that the expression is not a pass-away or *D* expression, this alternative is examined. Lastly, the stated-time-relation or *Q* expression in Mormon 4:16 seems quite unlikely to belong to a “formal”, patched together, “whole-year(s)” or alternative *A* structural category, but this alternative also is examined. The associated temporal-expression structure may be described as a variable sequence letter pattern, but the placement of formal and informal expressions does not appear to have been organized apart from their formal structural categories (within-year and year-end) or informal categories (stated-quantity, referred-quantity, and mortal-time). The letter-sets of the formal categories in the Book of Mormon may be depicted as a variable sequence *DADADADFADADAD* letter pattern and the informal categories appear as another variable sequence *JTJMQMQRMRMQM* letter pattern.

Table 2.K of this Division lists the 46 proposed Sets of number-terms associated with the temporal-expression letter-sets in these variable sequence letter patterns. These Sets produce 107 alternative Set-sums, 62 unique Set-sum values, and 214 Set-contexts. The eight square boxes represent non-quantified alternatives to the listed Set-sums in this table. Sixteen unique Set-sums included in the table (25.8% of the unique values) possibly may be considered incidental to the proposed symbolism because they do not imply any Set-context. Only close accords with exact day counts are included in this table. One hundred thirty-six (63.6%) of the 214 proposed Set-contexts represent close accords. The other 78 proposed Set-contexts (36.4%) represent near accords. Sixty Set-contexts (28.0%) involve factors of single intervals and 154 (72.0%) involve one or more multiples of intervals or half intervals.

The numbers of Set-contexts associated with each type of interval are listed in the summary of Table 2.K. The 20-day cycle is associated with 11 Set-contexts. The 360-day Long Count tun is related to 14 close accords. Thirty-five Set-contexts involve draconic month intervals, 26 involve sidereal month intervals, and 21 relate to synodic month intervals. Seven Set-contexts are related to draconic or eclipse years. Six Set-contexts each are associated with tropical and sidereal years. For the planetary periods, the larger numbers of Set-contexts are associated with sidereal periods of Mercury and Venus and synodic periods of Mercury, Venus, and Mars.

2.7.7 “Relaxed” definition of a near accord

Tables 2.F through 2.K present 30 unique Set-sum values (nearly one in seven) that imply no Set-context. Those numbers seemed large in what otherwise appeared to be an intentional chronological listing; so, they were investigated with a “relaxed” definition of a near accord—one whole day less than the smaller near accord or more than the larger near accord. Consistent with the irregular orbits of the earth, moon, and planets, and with naked-eye observation of the heavens and careful record keeping, it was assumed that, at times, a recorded commensuration reasonably could be another day shorter or longer than the closest near accord. With that modification of the near accord definition, 18 of the 30 unique Set-sums became associated with 29 slightly longer or shorter astronomical intervals. When the relaxed definition of a near accord was applied to the other 185 unique Set-sums (the ones that already had been associated with Set-contexts under the more rigorous definitions of close and near accords), 74 of the 185 Set-sums implied 96 additional relaxed near accords. These 92 unique Set-sums and their 125 relaxed near accords all are listed in Table 2.L. (Duplicates have been removed from all these numbers.)

2.7.8 Aggregate data for all proposed Sets

The 201 proposed Sets in Tables 2.F through 2.K result in 394 Set-sums that imply 866 Set-contexts and 45 Set-sums that do not imply any Set-context. These aggregate numbers include 179 duplicate Set-sums that imply 448 duplicate Set-contexts; they also include 15 duplicate Set-sums that do not imply any Set-context. When the duplicates are removed from the aggregate data, the 201 proposed Sets result in 215 unique Set-sums. Of this number, 30 do not imply any Set-context. The remaining 185 unique Set-sums imply all 418 proposed Set-contexts.

Two hundred eighty (67.0%) of the 418 Set-contexts represent close accords and 138 (33.0%) represent near accords. Sixty-three (15.1%) of the 418 Set-contexts involve factors of single intervals, while 355 (84.9%) involve one or more multiples of intervals or half intervals. Eighteen of the 30 unique Set-sums do not imply any Set-context, but they do imply 29 of the relaxed near accords listed in Table 2.L. Seventy-four of the 185 unique Set-sums that imply Set-contexts also imply another 96 of the relaxed near accords listed in Table 2.L.

Thus, 203 (94.4%) of the 215 unique Set-sums imply 418 Set-contexts (280 close accords and 138 near accords) and 125 relaxed near accords. Table 2.M lists all 543 of these accords, together with the numbers related to the various interval lengths set forth in Table 3.A of Division 2. The 12 unique Set-sums that do not imply any accord also are listed in Table 2.M.

2.7.9 Lunar symbolism in Mormon₂'s concluding Set-sums

Mean lunar months. Draconic, sidereal, and synodic month intervals are implied by 92 close accords, 100 near accords, and 94 relaxed near accords listed in Table 2.M. These 286 accords represent 59.6% of the 480 accords with intervals or half intervals. The accords suggest a detailed, accurate Nephite understanding of lunar motion. The following list summarizes part of that understanding by comparing implied “Set-context” means with the modern estimates of these means. The implied close accords in the list are the five longest ones for each type of lunar month listed in Table 2.M.

<u>Month type</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
draconic	10395 or 10396 days	27.21335 days	27.21222 days	1.63 minutes
draconic	10000 or 10001 days	27.21224 days	27.21222 days	0.04 minutes
draconic	9279 or 9280 days	27.21261 days	27.21222 days	0.56 minutes
draconic	8721 or 8722 days	27.21217 days	27.21222 days	0.07 minutes
draconic	8394 or 8395 days	27.21070 days	27.21222 days	2.19 minutes
sidereal	10395 or 10396 days	27.32063 days	27.32166 days	1.48 minutes
sidereal	9999 or 10000 days	27.32104 days	27.32166 days	0.90 minutes
sidereal	9275 or 9276 days	27.32106 days	27.32166 days	0.86 minutes
sidereal	8879 or 8880 days	27.32154 days	27.32166 days	0.18 minutes
sidereal	8715 or 8716 days	27.32132 days	27.32166 days	0.49 minutes
synodic	10394 or 10395 days	29.52983 days	29.53059 days	1.10 minutes
synodic	9996 or 9997 days	29.53176 days	29.53059 days	1.68 minutes
synodic	8401 or 8402 days	29.53076 days	29.53059 days	0.24 minutes
synodic	8002 or 8003 days	29.52952 days	29.53059 days	1.54 minutes
synodic	7604 or 7605 days	29.53204 days	29.53059 days	2.09 minutes

The implied mean of one of the closest draconic month intervals listed above is about 0.04 minutes (2.2 seconds) longer than the modern mean, while the next closest is about 0.07 minutes (4.5 seconds) shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 27.21221 days for the draconic month, approximately 0.92 seconds shorter than the modern estimate. This combined measure may have permitted relatively accurate predictions of a draconic month interval of 37444 days (about 102.518 tropical years).

All the implied means of the depicted sidereal month intervals are shorter than the modern mean. The sixth longest close accord of sidereal month intervals has an implied mean that is longer than the modern mean. This longer mean and the closest shorter mean may be depicted as follows.

<u>Month type</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
sidereal	8879 or 8880 days	27.32154 days	27.32166 days	0.18 minutes
sidereal	8319 or 8320 days	27.32184 days	27.32166 days	0.26 minutes

A count of days that alternated these two measures would produce a combined mean of about 27.32168 days for the sidereal month, approximately 2.06 seconds longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a sidereal month interval of 34398 days (about 94.179 tropical years).

The implied means of two synodic month intervals listed above are about 1.68 minutes longer and about 1.54 minutes shorter than the modern mean. These longer and shorter means may be depicted as follows.

<u>Month type</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
synodic	9996 or 9997 days	29.53176 days	29.53059 days	1.68 minutes
synodic	8002 or 8003 days	29.52952 days	29.53059 days	1.54 minutes

A count of days that alternated these two measures would produce a combined mean of about 29.53076 days for the synodic month, approximately 14.94 seconds longer than the modern mean. This combined measure may have permitted relatively accurate predictions of a synodic month interval of 35998 days (about 98.559 tropical years).

The sidereal and synodic month intervals of about 94 and 102 years described above could have permitted the priest-astronomers to predict the phase and position of the moon in a precisely measured backdrop of the stars along the ecliptic. Whether they did so is not indicated by the lunar data. What the data do suggest relates more to draconic months and years, and perhaps actual or predicted eclipses over an interval of 40 consecutive ritual almanacs (10400 days or about 28.474 tropical years).

Eclipse seasons and eclipses. The largest and second largest unique Set-sums listed in Table 2.M are 10398 and 10395. They are composed of all the number-terms in Mormon₂'s concluding number-term letter pattern. The largest of these Set-sums includes the three larger alternative values of the M number-terms near the beginning of the Book of Mormon.²⁶⁴ The second largest Set-sum does not use the hypothetical values. A Set-context of 10398 days is two day less than 40 260-day calendar years or 10400 days. There is no question that such an interval was counted over and over again in the thousands of years that the ritual almanac has been counted in Mesoamerica. What is not so certain is in which of those 10400-day intervals, if any, the close, near, and relaxed near accords associated with 10398 and 10395 days may have been observed, counted, and recorded.

The 10398-day close accords include 30 draconic or eclipse years and 27.5 synodic periods of Saturn. The 10395-day close accords include 382 draconic months, 352 synodic months, 380.5 sidereal months, 1485 7-day weeks, and 1155 9-day cycles. This relatively close commensuration of these periods and cycles may represent a lengthy interval (about 28.469 tropical years) between two actual solar or lunar eclipses or a prediction of such an interval. The fact that these listed accords are so close to the length of 40 ritual almanacs also may be evidence of the recording and/or prediction of eclipses in connection with the count of ritual almanacs.

Table 2.N of this Division lists an eclipse related subset of the 203 unique Set-sums and their 480 implied close, near, and relaxed near accords that are related to intervals and half intervals. This subset includes 125 (61.6%) of the 203 unique Set-sums and 332 (69.2%) of such accords, all of which may be linked to the measurement of draconic years and eclipse seasons measured from a beginning eclipse, and/or intervals of draconic months measured from the moon's arrival at one of the two nodes. The detailed analysis of such eclipse related data in connection with eclipse tables is beyond the scope of this study. The summary in Table 2.N presents the numbers of eclipse related accords for each of the interval types.

All this data appears to be related to eclipse recording and prediction and may imply that Nephite priest-astronomers were not only engaging in those activities, but that they had observed, recorded, and maintained extensive records related to eclipses. To observe and collect such data, they would have needed well trained personnel to make the observations, natural or constructed heights from which a consistent view of the heavens could be obtained, an accurately determined representation of the stars along the ecliptic for plotting and describing the positions of the moon and sun, and detailed language identifying such intervals and their numbers. To record such information, they also would have needed competent scribes to create the records, maintain them, and copy them when they began to deteriorate. The scribes would have needed to create or otherwise obtain the necessary writing materials and protected places where the records could be written, copied, and stored. Presumably, the priest-astronomers were charged with such work, which suggests an extensive community that accepted the presence of a unified,

²⁶⁴ Mormon 1:8, 11; 2:1.

hierarchical group large enough to accomplish the necessary tasks. Perhaps the most notable aspect of these symbolic accords is that they suggest the organized maintenance of astronomical observations, rigid day counts, established calendars, and collections of thousands of records accumulated over centuries of Nephite existence from the days of Nephi₁ to those of Mormon₂.

These implications about “the manner of the learning of [Mormon₂’s] people” are consistent with the learning of ancient peoples that apparently flourished in Mesoamerica for hundreds, perhaps thousands, of years before the proposed time of Nephi₁, throughout the time of his people, and well into the second millennium CE. Many of those Mesoamerican peoples created folded books made of perishable bark paper that was undercoated with a thin plaster layer and then painted with hieroglyphs. Their scribes recorded their learning regarding astronomy, religion, genealogy, history, and ritual. Almost all their books perished from the ravages of heat and humidity, havoc-wreaking local warfare, or book burning by their Spanish conquerors.²⁶⁵ Moreover, the proposed eclipse symbolism is congruent with Mesoamerican views of eclipses with regard to personal wellbeing, family life, agricultural productivity, and the timing of warfare. Some of such beliefs about eclipses seem to have been preserved by a few Mesoamerican peoples into recent times.²⁶⁶

2.7.10 Planetary symbolism in Mormon₂’s concluding Set-sums

Mean planetary periods. Thirty-two close accords, 25 near accords, and 23 relaxed near accords suggest most of the synodic and sidereal periods of the five planets regularly visible to naked-eye observation. These 80 accords represent 16.7% of the 480 accords with intervals or half intervals listed in Table 2.M. The accords suggest a detailed, accurate understanding of planetary motion. The following lists summarize part of that understanding by comparing implied “Set-context” means with the modern estimates of these means. The implied close accords in the lists are the five longest ones for each type of planetary period listed in Table 2.M, unless there are fewer than five close, near, or relaxed near accords from which close accords may be implied.

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Mercury sidereal	8005 or 8006 days	87.97253 days	87.96939 days	4.52 minutes
Mercury sidereal	6421 or 6422 days	87.96575 days	87.96939 days	5.24 minutes
Mercury sidereal	5410 or 5411 days	87.97561 days	87.96939 days	8.96 minutes
Mercury sidereal	3958 or 3959 days	87.96667 days	87.96939 days	3.92 minutes
Mercury sidereal	3562 or 3563 days	87.96296 days	87.96939 days	9.25 minutes

The implied means of two sidereal periods listed above are about 8.96 minutes longer and about 9.25 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 87.97059 days for the sidereal period, approximately 1.7 minutes shorter than the modern estimate. This combined measure may have permitted relatively accurate predictions of a sidereal period of 17946 days (about 49.135 tropical years).

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Mercury synodic	7995 or 7996 days	115.87681 days	115.87754 days	1.05 minutes
Mercury synodic	5793 or 5794 days	115.87000 days	115.87754 days	10.86 minutes
Mercury synodic	4461 or 4462 days	115.88312 days	115.87754 days	8.03 minutes

²⁶⁵ E.g., Coe, *Breaking the Maya Code*, 100-101; Schele and Freidel, *A Forest of Kings*, 18, 50; David Freidel, Linda Schele, and Joy Parker, *Maya Cosmos: Three Thousand Years on the Shaman’s Path* (New York: William Morrow, 1993), 44-45.

²⁶⁶ E.g., Milbrath, *Star Gods of the Maya*, 25-27, 111-17, 120-126.

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Mercury synodic	3939 or 3940 days	115.86765 days	115.87754 days	14.25 minutes
Mercury synodic	3476 or 3477 days	115.88333 days	115.87754 days	8.34 minutes

The implied means of two synodic periods listed above are about 8.03 minutes longer and about 10.86 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 115.87571 days for the synodic period, approximately 2.64 minutes shorter than the modern estimate. This combined measure may have permitted relatively accurate predictions of a synodic period of 20510 days (about 56.155 tropical years).

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Venus sidereal	9999 or 10000 days	224.70787 days	224.70116 days	9.66 minutes
Venus sidereal	8875 or 8876 days	224.69620 days	224.70116 days	7.14 minutes
Venus sidereal	8313 or 8314 days	224.68919 days	224.70116 days	17.24 minutes
Venus sidereal	7190 or 7191 days	224.70313 days	224.70116 days	2.83 minutes
Venus sidereal	2921 or 2922 days	224.73077 days	224.70116 days	42.64 minutes

The implied means of two sidereal periods listed above are about 9.66 minutes longer and about 7.14 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 224.70238 days for the sidereal period, approximately 1.8 minutes longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a sidereal period of 37750 days (about 103.356 tropical years).

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Venus synodic	6423 or 6424 days	583.95455 days	583.92166 days	47.36 minutes
Venus synodic	2919 or 2920 days	583.90000 days	583.92166 days	31.19 minutes
Venus synodic	2627 or 2628 days	583.88889 days	583.92166 days	47.19 minutes
Venus synodic	2043 or 2044 days	583.85714 days	583.92166 days	92.90 minutes

The implied means of two synodic periods listed above are about 47.36 minutes longer and about 47.19 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 583.93548 days for the synodic period, approximately 19.9 minutes longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a synodic period of 18102 days (about 49.562 tropical years).

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Mars sidereal	9274 or 9275 days	687.0 days	686.99576 days	6.11 minutes
Mars sidereal	4121 or 4122 days	686.91667 days	686.99576 days	113.89 minutes
Mars sidereal	1373 or 1374 days	686.75 days	686.99576 days	353.89 minutes

The implied means of two sidereal periods listed above are about 6.11 minutes longer and about 113.89 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 686.97436 days for the sidereal period, approximately 30.8 minutes shorter than the modern estimate. This combined measure may have permitted relatively accurate predictions of a sidereal period of 26792 days (about 73.354 tropical years).

As Table 2.M indicates, the Set-sums suggest seven factors that may be related to the synodic period of Mars (4, 10, 15, 19, 20, 26, and 60). The modern mean is about 779.93651 days; so the close accords would be 779 or 780 days. However, no single Set-sum implies a close, near, or relaxed near accord with either of these numbers of days.

Similarly, Table 2.M indicates that Set-sums imply four factors that may be related to the sidereal period of Jupiter and two factors that may be related to the sidereal period of Saturn. Their respective modern means are about 4332.8486 days and about 10764.44 days. Again, however, no single Set-sum implies a close, near, or relaxed near accord with either of these numbers of days.

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Jupiter synodic	7578 or 7579 days	398.86842 days	398.88421 days	22.74 minutes
Jupiter synodic	2792 or 2793 days	398.92857 days	398.88421 days	63.88 minutes
Jupiter synodic	1196 or 1197 days	398.83333 days	398.88421 days	73.26 minutes
Jupiter synodic	398 or 399 days	398.85 days	398.88421 days	553.26 minutes

The implied means of two synodic periods listed above are about 63.88 minutes longer and about 73.26 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 398.90 days for the synodic period, approximately 22.7 minutes longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a synodic period of 7978 days (about 21.843 tropical years).

<u>Period</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
Saturn synodic	10397 or 10398 days	378.09091 days	378.09208 days	1.69 minutes
Saturn synodic	8318 or 8319 days	378.11364 days	378.09208 days	31.04 minutes
Saturn synodic	3024 or 3025 days	378.06250 days	378.09208 days	42.60 minutes
Saturn synodic	378 or 379 days	378.5 days	378.09208 days	587.40 minutes

The implied mean of the close accords of 10397 or 10398 days is precise to less than two minutes. The implied means of two other synodic periods listed above are about 31.04 minutes longer and about 42.60 minutes shorter than the modern mean. A count of days that alternated these two measures would produce a combined mean of about 378.10 days for the synodic period, approximately 11.4 minutes longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a synodic period of 22686 days (about 62.112 tropical years).

Planetary accords. Table 2.O of this Division lists a subset of the 203 unique Set-sums and their 480 implied close, near, and relaxed near accords that are related to planetary intervals and half intervals. This subset includes 71 (35.0%) of the 203 unique Set-sums and 221 (46.0%) of such accords, all of which may be linked to the measurement of planetary periods. The summary in Table 2.O presents the numbers of accords related to planetary intervals for each of the interval types. When the planetary period Set-sum values are compared with the eclipse Set-sum values, 44 values are duplicated in the two lists, 81 are unique to eclipse Set-sum values, and 27 are unique to planetary period Set-sum values. A total of 152 (74.9%) of the 203 unique Set-sums may be related to eclipses and planetary periods. Similarly, when the planetary period accords are compared with the eclipse accords, 147 accords are duplicated in the two lists, 185 are unique to eclipse accords, and 74 are unique to planetary period accords. A total of 406 (84.6%) of the 480 implied close, near, and relaxed near accords may be related to eclipses and planetary periods. The planetary period accord data also suggest extensive and consistent observations of the heavens, detailed record keeping, and thoughtful planning of the temporal-expressions placed within Mormon₂'s concluding record.

One must note that three of the planetary periods that may be implied by factors of close accords (Table 2.M) do not appear in Table 2.O. The Mars synodic period (about 779.93651 days) may be suggested by the implied factors 4, 10, 15, 19, 20, 26, and 60. The Jupiter sidereal

period (about 4332.8486 days) may be indicated by the suggested factors 4, 19, 57, and 361. The Saturn sidereal period (about 10764.44 days) may be implied by the proposed factors 4 and 36. Thus, one may certainly question whether these periods have been purposely left out of all the other planetary calculations. Perhaps they have been depicted in unique ways to draw attention to the greater lengths of their periods and/or to economize on the sizes of the Set-sums necessary to imply such periods with all the other temporal-expressions. Each of these lengthy periods is examined separately below.

The Saturn sidereal period. The longest close accord with the synodic period of Saturn in Mormon₂'s concluding temporal-expressions is the one implied by the largest single Set-sum 10398 (Table 2.H). The related Set includes the values of every letter-set in Mormon₂'s concluding number-term letter pattern. The numerical value of each stated number-term and the implied numerical value of each common number-term are included. Indeed, the larger proposed, hypothetical, values for the three common number-terms near the beginning of the Book of Mormon are included, so as to create the Set-sum 10398. If the priest-astronomers observed, measured, and recorded Saturn related data for this many days, one would expect that they performed these same tasks for the following 366 or 367 days that would need to be considered to reach the close accords of 10764 and 10765 days. Indeed, three Set-sums (366, 367, and 369) are possibilities that may be related to this expectation and the second largest Set-sum in Table 2.H (10395) also may be combined with these possibilities, i.e., $10395+369 = 10764$.

The Set-sum 366 appears in Table 2.I: the first (R) letter-set in the second (RQ[R]QR) narrative-link letter-group; and in Table 2.K: the fifth (D) expression letter-set.

The Set-sum 367 appears in Table 2.J: all letter-sets in the first (Q[T]Q) narrative-link letter-group; and in Table 2.K: the fifth (A) expression letter-set.

The Set-sum 369 appears in Table 2.I: all (R) letter-sets in the central (QR[Q]RQ) narrative-link letter-group; and in Table 2.J: all letter-sets in the first (Q[T]Q) narrative-link letter-group, but with the larger hypothetical values for the two M number-terms.

The following lists depict the Set-sums 366, 367, and 369 and their proposed 13 accords for purposes of comparing them with Mormon₂'s largest and second largest Set-sums.

Set-sums	10398	366	367	369
Accords	Accord types	Accord types	Accord types	Accord types
Saturn synodic	close	~	~	~
draconic month	relaxed	near	close	near
sidereal month	relaxed	relaxed	near	close
synodic month	~	~	relaxed	close
7-day week	~	~	~	~
9-day cycle	~	~	~	close
sidereal year	~	close	near	~
tropical year	~	close	near	~
draconic year	close	~	~	~
	Total sums	10764	10765	10767

Set-sums	10395	366	367	369
Accords	Accord types	Accord types	Accord types	Accord types
Saturn synodic	relaxed	~	~	~
draconic month	close	near	close	near
sidereal month	close	relaxed	near	close
synodic month	close	~	relaxed	close
7-day week	close	~	~	~
9-day cycle	close	~	~	close
sidereal year	~	close	near	~
tropical year	~	close	near	~
draconic year	~	~	~	~
	Total sums	10761	10762	10764

The commonalities in the foregoing Set-sums and lists begin with the sources of the Set-sums. Both 10395 and 10398 originate with a single Set in Table 2.H, which is composed of all the letter-sets in Mormon₂'s concluding number-term letter pattern. Likewise, both 367 and 369 may be derived from a single Set in Table 2.J, which is composed of all the letter-sets in his first (Q[T]Q) narrative-link letter-group. The difference in the Set-sums is that the larger two (10398 and 369) use the larger, alternative, hypothetical values for the relevant M number-terms. The accord harmonies also appear distinctive. Only two accords of the Set-sum 10398 are shared with the accords of 366, 367, or 369, but the sums of 10398 and 366 or 367 (10398+366 = 10764 and 10398+367 = 10765) provide close accords with the mean sidereal period of Saturn (about 10764.44 days). The Set-sums 10395 and 369 share four accords and their sum (10395+369 = 10764) also provides a close accord with the mean sidereal period of Saturn. This study proposes that the common sources and shared accords of the Set-sums 10395, 10398, 367, and 369 were designed to indicate the Nephite understanding of the synodic and sidereal periods of Saturn.

The Jupiter sidereal period. The modern estimate of the mean sidereal period of Jupiter is about 4332.8486 days. This interval is about 2.3 hours longer than the length of 12.5 mean draconic or eclipse years (about 4332.7510 days). Perhaps at this point in the analysis, it should come as no surprise that two separate Set-sums (3294 and 1038) imply near accords with 9.5 and 3 draconic years, respectively. These Set-sums originate in Tables 2.F and 2.I. There are four other accord combinations in the Set-sum 3000s and 4000s (3308+1024 = 4332, 3956+376 = 4332, 4316+16 = 4332, and 4276+56 = 4332), but there are no commonalities as clear as the additions 3294+1038 = 4332 and 9.5+3 = 12.5, and the close accord of 12.5 draconic years with the Jupiter sidereal period. The emphasis on eclipse related measurements depicted in Table 2.N also cannot be ignored. Hence, this study proposes that the shared accords of the Set-sums 3294 and 1038 were designed to indicate the Nephite understanding of the sidereal period of Jupiter.

The Mars synodic period. The modern estimate of the mean synodic period of Mars is about 779.93651 days. This interval is about 1.5 hours less than 780 days; so, this synodic period may have been measured most often with a 780-day close accord (3x13x20 = 39x20 = 13x60 = 3x260 = 780). The astronomical commensurations include: a close accord with 2.25 mean draconic years (about 779.89517 days); a near accord with 28.5 mean sidereal months (about 778.66731 days); and a relaxed near accord with 26.5 mean synodic months (about 782.56064 days). An interval of 28.5 mean draconic months (about 775.54827 days) is approximately 4.4 days less than the Mars synodic period. The alternative close accord of 779 days suggests two close accords with 2.25 draconic years and 28.5 sidereal months.

The Mars synodic period is unique. Each of the other four synodic periods of the readily visible planets is implied by four or more of Mormon²'s individual concluding Set-sums. Each of those Set-sums, by itself, implies a close, near, or relaxed near accord with a synodic period. None of the concluding Set-sums, by itself, suggests any such accord with the Mars synodic period. Moreover, the other two seemingly absent planetary intervals are sidereal periods; the apparently missing Mars period is synodic. This suggests that it may be exhibited in a manner that is different from the supposedly omitted sidereal periods of Jupiter and Saturn.

Another unique aspect of the Mars synodic period is its close accord with 2.25 draconic years. This is not a typical interval or half-interval multiple like those suggested by hundreds of other proposed accords; so, it may imply the need to double or quadruple the single Mars synodic period. A doubled Mars mean synodic period is about 1559.87302 days, which is close to the length of 4.5 mean draconic years (about 1559.79034 days); however, the nearest Set-sums to these numbers are ten or more distant (1549 and 1573). A quadrupled Mars mean synodic period is about 3119.74604 days, which maintains a close accord with nine mean draconic years (about 3119.58068 days), but the closest Set-sums are 3114 and 3197. Hence, neither a doubled nor a quadrupled Mars synodic period is implied by a single Set-sum.

The Set-sum 3114 represents a tripling of the Set-sum 1038. The Set-sum 1038 is a key to identifying the Jupiter sidereal period and it also implies a near accord with three mean draconic years (about 1039.86023 days). However, the problem with 3114 and 1038 is that they both imply intervals that are shorter than the astronomical period. The Set-sum 1038 is a near accord with three mean draconic years. Tripling the difference between 1038 and the mean interval results in 3114 days, which is too short to commensurate with the length of a relaxed near accord with nine draconic years or four synodic periods of Mars.

These issues disappear if addition is used instead of doubling, tripling, or quadrupling. Addition is used to identify the seemingly missing sidereal periods of Jupiter and Saturn. Addition also appears to be the arithmetic process used to identify the supposedly missing synodic period of Mars. In the instances involving the sidereal periods of Jupiter and Saturn, two textually related Set-sums were added together. In this instance, however, a simple addition of two Set-sums is not proposed. Instead, to identify the synodic period of Mars, six Set-sums appear to be involved and four of them are alternatives to each other. These six Set-sums relate to various lengths of draconic year intervals. However, when they are added together, they imply a close accord with the length of four Mars synodic periods. These six Set-sums, their source tables, and their related draconic year accords are presented in the following list.

Set-sums	Table	Accord type	Accord	Alternate totals
1735	2.F	near	5 draconic years	~
1038	2.I	near	3 draconic years	~
345	2.H, J, K	near	1 draconic year	3118
346	2.J	close	1 draconic year	3119
347	2.I	close	1 draconic year	3120
348	2.J	near	1 draconic year	3121

The Set-sum 1735 implies a near accord that is slightly longer than five mean draconic years (about 1733.10038 days). The Set-sum 1038 suggests a near accord that is slightly shorter than three mean draconic years (about 1039.86023 days). These differences in length bring their average closer to the mean. The Set-sums 345-348 imply the near and close accords of a single mean draconic year (about 346.62008 days). The alternate totals 3118 and 3121 suggest near

accords and the alternate totals 3119 and 3120 imply close accords. All four sums may be interpreted as a representation of nine ($5+3+1 = 9$) mean draconic years (about 3119.58068 days) or four mean synodic periods of Mars (about 3119.74604 days). The difference in the two intervals is about 3.3 hours, accumulated over a period of about 8.5 tropical years. This study proposes that the combined Set-sums 1735 and 1038, when added together with the alternate Set-sums 345, 346, 347, and 348, were designed to indicate the Nephite understanding of the Mars synodic period and its close relationship with draconic years.

2.8 Conclusion

Mormon₂'s personal record holds a chronologically symbolic position in his set of plates. This record is the last of his seven books. The number seven symbolizes the religious Nephites' faithful maintenance of a 7-day week for nearly a thousand years. Mormon₂'s record is a culmination that is neither a simplistic retelling of an ancient plot of destruction that had been revealed to his ancestor Nephi₁ nor is it a patchwork collection of scraps from an aged warrior's long memoir in the official plates of Nephi. The book articulates his anguish, religious witness, and prophecies. It symbolizes a few crucial dates in his life and the lives of his people. It is organized in complex, interwoven, chronological structures that honor his ancestors, instruct his readers in what to expect in the attached small plates of Nephi, and imply a detailed astronomy denoting "the manner of the learning of [his] people".

As to the book's numbered place in Mormon₂'s compilation of records, it is the seventh in a set of 13 books. His first six books tell an abridged narrative of the Nephite people up to his own time. The last six books appear in the small plates of Nephi and describe the prophetic origins of Lehi₁ and his descendants prior to the time of the last Nephite king, Mosiah₂. With Mormon₂'s personal record, these 13 books create a (6/1/6) number pattern for the combined sets of plates. Mormon₂'s personal record stands at the center of this pattern, a symbolic full moon at its nighttime peak or sun at its mid-day zenith. This number pattern honors Lehi₁'s initiating vision of the descent of the Messiah and his 12 apostles from the throne of God. While Mormon₂ added an epilogue to these 13 books (the Words of Mormon in the small plates), he intentionally did not entitle his epilogue a "book". The symbolism of his (6/1/6) "book" number pattern was important enough to him that he preserved it with his "words".

Lehi₁ and his family presumably appeared at the beginning of Mormon₂'s initial lost book, the Book of Lehi. Lehi₁'s descendants survived at the end of Fourth Nephi, the sixth book in the plates of Mormon. Nonetheless, by that point in time, the majority of the Nephite people were in a headlong plunge down the precipitous slope of self-indulgence that culminated in rapacious, genocidal, cannibalistic warfare because they refused to repent.²⁶⁷ Lehi₁ and his family appear at the beginning of Nephi₁'s first book. At the end of the Book of Omni, the sixth book in the small plates of Nephi, Lehi₁'s descendants who sought to maintain their religion had combined with the people of Mulek and a righteous Nephite king was their ruler. Mormon₂ added his "words" after the Book of Omni to provide a concluding witness in the small plates that the prophecies of Lehi₁, Nephi₁, and their descendants set forth in those plates had been fulfilled (as to the Messiah's birth, death, resurrection, and appearance) or were about to be fulfilled (as to the extinction of the Nephite people²⁶⁸).

²⁶⁷ Moroni 9:9-10.

²⁶⁸ Alma 45:1-14.

The simplicity of Mormon₂'s express title for his personal book is like some of his other titles; e.g., "The Book of Mosiah" or "The Book of Helaman". Other book titles are accompanied by appositives: e.g., "The Book of Alma, the son of Alma" or "The Book of Nephi, which is the son of Nephi, one of the disciples of Jesus Christ". The Book of Mormon has no express title appositive; however, its planetary symbolism suggests three appositives. This proposed symbolism is based on the periods of the two inferior planets, the ones that orbit between the earth and sun: Mercury and Venus. The examination begins with Venus, the closer to the earth, and concludes with Mercury, the closer to the sun.

2.8.1 Symbolic appositive of the Venus periods

Table 2.O lists 17 (4.2%) of the 203 unique Set-sum values, together with their 67 proposed accords that are related to close, near, and relaxed near accords with Venus intervals or half-intervals. Two Set-sums (8316 and 1010) imply accords of Venus sidereal periods with the Saturn synodic period and Mercury sidereal period, respectively. A third Set-sum (6423) suggests a commensuration of Venus synodic periods with Mercury sidereal periods. These three Set-sums also relate to eight more accords with other periods.

One Set-sum (2922) implies eight close, near, and relaxed near accords. This Set-sum is based on a Set composed of all the number-terms in the (R) letter-sets of Mormon₂'s alternatively delimited, concluding RQRQRQRQRQRQR narrative-link letter pattern (Tables 2.I and 2.L). The close accords include the lengths of: 13 mean sidereal periods of Venus (about 2921.1151 days); eight mean tropical years (about 2921.9375 days); eight mean sidereal years (about 2922.0510 days); and 194 13-day cycles. The near accords include the lengths of: 99 mean synodic months (about 2923.5284 days); 16.5 mean 6-synodic month semesters; 5.5 mean 18-synodic month years; and 107 mean sidereal months (about 2923.4176 days). The relaxed near accord is the length of 5 mean synodic periods of Venus (about 2919.6083 days).

The Set-sum 2922 suggests a distinctly astronomical view of an apparently deep-rooted 2920-day cycle used throughout ancient Mesoamerica. That cycle was measured, formalized, and ritualized by Mesoamericans as the 2920-day accord of five Venus synodic periods counted as 584 days each and eight solar years counted as 365 days each ($5 \times 584 = 8 \times 365 = 2920$). Susan Milbrath noted that the cycle apparently had close ties with synodic months, the 260-day calendar, annual seasons, agricultural tasks, territorial wars, and the visibility of Venus in the east for about 263 days after its first appearance or heliacal rising as Morning Star and in the west for about 263 days more after its first appearance as Evening Star. Milbrath also suggested that the eight-year cycle may have "developed in tandem with the solar calendar" and she referred to Thompson's assertion that the "idealized Venus cycle always ended on the day 1 Ahau [Lord], a day that probably named Venus at heliacal rise".²⁶⁹ Thompson considered 1 Lord to be "the day sacred to Venus" and "a name for the Venus god" among some of the Maya. The name "great star" for the planet apparently was widespread in Mesoamerica.²⁷⁰

In Part 3 of Division 2, Edmonson's proposed calendrical genealogy was introduced. That genealogy suggested that various solar calendars were inaugurated during the Mesoamerican Preclassic or Formative period (approximately 2500 BCE to 250 CE). Accurate solar eras based on 365-day calendars may have begun to be measured in the seventh century BCE. The

²⁶⁹ Milbrath, *Star Gods of the Maya*, 166, 170.

²⁷⁰ Thompson, *Maya Hieroglyphic Writing: Introduction*, 218.

provisionally named “Cuicuilco” and “Olmec” calendars appear to have been terminally named and used the day 1 Lord as their senior year bearer.²⁷¹ Hence, the seasonal and agricultural aspects of the eight-year solar and Venus cycle may have been used by Mesoamericans for hundreds of years before the time of Nephi₁ and for more than a millennium before the time of Mormon₂. The Set-sum 2922 suggests Nephite awareness of that cycle, but may have focused their attention on the seasonal and agricultural astronomy rather on the heliacal rising of the Morning Star.

Two other Set-sums (6423 and 1573) are related, respectively, to the division between Mormon₂'s formal and informal temporal-expressions in the Book of Mormon. These Set-sums are derived from Sets listed in Table 2.K. They suggest a crucial symbolism of the synodic and sidereal periods of Venus. The assumptions underlying the Set and Set-sum of the formal expressions (6423) are as follows.

The number-terms of all formal expressions engraved by Mormon₂ in the Book of Mormon are included in the Set. (This means that the number-term of the formal pass-away or *D* expression later added by Moroni₂ is disregarded.)

The first temporal-expression in Mormon 3:4 is categorized as a formal pass-away or *D* expression rather than an informal ordinal-year-event or *R* expression; so, its number-term is included in the Set.

The temporal-expression in Mormon 4:16 is categorized as an informal stated-time-relation or *Q* expression instead of a formal “whole-year(s)” or *A* expression; so, its number-term is not included in the Set.

In Table 2.K, the Set-sum 6423 is listed with three close accords and a single near accord. Table 2.L lists this Set-sum with a single relaxed near accord. These five symbolized astronomical periods include: close accords with the lengths of 11 mean synodic periods of Venus (about 6423.1383 days), 236 mean draconic months (about 6422.0839 days), and 217.5 mean synodic months (about 6422.9033 days); a near accord with the length of 73 mean sidereal periods of Mercury (about 6421.7655 days); and a relaxed near accord with the length of 235 mean sidereal months (about 6420.5901 days).

Necessarily, the three assumptions underlying the Set of formal expressions are related to the four assumptions underlying the Set of informal expressions and its Set-sum (1573). These four assumptions may be stated as follows.

The number-terms of all informal expressions engraved by Mormon₂ in the Book of Mormon are included in the Set.

The first temporal-expression in Mormon 3:4 is not an informal ordinal-year-event or *R* expression; so, its number-term is not included in the Set.

The temporal-expression in Mormon 4:16 is categorized as an informal stated-time-relation or *Q* expression; so, its number-term is included in the Set.

Each common or *M* number-term uses the stated number from the previous text to which it refers. (The hypothetical alternative values suggested for the *M* number-terms in Mormon 1:8, 11, and 2:1 are disregarded.)

In Table 2.K, the Set-sum 1573 is listed with two close accords with the lengths of 7 mean sidereal periods of Venus (about 1572.9081 days) and 121 13-day cycles.

²⁷¹ See Division 2, Part 3, Sections 3.10.1-3.10.6.

Thus, the Set-sums 6423 and 1573 represent the respective results of adding the number-terms of all formal and informal expressions placed by Mormon₂ in his concluding book. These Set-sums imply two Set-contexts related to the planet Venus: 11 synodic periods and seven sidereal periods, respectively. Both of these accords are accurate to within less than a single day. Why would Mormon₂ subdivide the book's formal and informal expressions in this way?

The answer to this question may be suggested by some of the Classic and Postclassic Mesoamerican iconography associated with the heliacal rise of Venus as the Morning Star, which seems to have begun each 2920-day cycle during a long dry season (late January to early May), a season often associated with territorial warfare. The length of five mean synodic periods of Venus is about 2919.6083 days; so, Milbrath's reference to this interval as a "Venus Almanac" seems appropriate. The warfare iconography appears to portray Venus spearing his stellar opposition on the other side of the ecliptic or star band.²⁷² Moreover, an inscription on the La Mojarra stela found in a non-Maya part of Mesoamerica and provisionally dated to 157 CE may refer to Venus as the "bludgeon star". In addition, the glyph for Venus appears to have been used as a "warrior title" for the elite figure who is the principal subject of the stela.²⁷³

From Mormon₂'s 16th year of age until he was killed some six decades later, his reported activities seem most often to have involved preparation for, or execution of, defensive territorial warfare. Thus, the full expression of the synodic and sidereal periods of Venus by the Set-sums 6423 and 1573, which use every number-term engraved by Mormon₂ in his personal book, may symbolize both the vital war-related activities of his life and the titles he mentions and suggests in his book: "the leader of their armies" and "commander".²⁷⁴ A symbolic military title is a fitting appositive for his personal record: "The Book of Mormon, the commander of the Nephite armies". However, this proposed symbolic Venus appositive is incomplete because there are additional phrases apparently symbolized by the synodic and sidereal periods of Mercury.

2.8.2 Symbolic appositives of the Mercury periods

Table 2.O lists 40 (19.7%) of the 203 unique Set-sum values, together with the 120 proposed accords that may be related to the close, near, and relaxed near accords with Mercury intervals or half-intervals. There are dozens more Set-sums and accords associated with Mercury than there are with Venus, and yet Mercury is the more difficult planet to observe with naked-eye techniques because it is so near to the sun and hidden by the sun for about a third of its synodic period.²⁷⁵ Three Set-sums (349, 1450, and 3474) imply accords of Mercury sidereal periods with Mercury synodic periods. Two more Set-sums (1010 and 6423) suggest commensurations of Mercury sidereal periods with Venus sidereal and synodic periods, respectively. A sixth Set-sum (396) implies an accord of a Mercury sidereal period with a Jupiter synodic period. These six Set-sums also have 11 more accords with other chronological periods.

The fact that the Set-sum 6423 is crucial to the proposed Venus "warrior" symbolism noted in the previous Section cannot overshadow the fact that it is also crucial to the related symbolism of the sidereal period of Mercury proposed in this Section. In that regard, the Set-sum 6423 symbolizes 11 synodic periods of Venus and the number 11 describes Mormon₂'s age when he

²⁷² Milbrath, *Star Gods of the Maya*, 10, 106, 124-25, 157-96, 209-14.

²⁷³ John S. Justeson and Terrence Kaufman, "A Decipherment of Epi-Olmec Hieroglyphic Writing," *Science* 259 (19 March 1993): 1705-06; Terrence Kaufman and John Justeson, "Epi-Olmec Hieroglyphic Writing and Texts" (2001), 2.55, 2.63-64, both accessed at academia.edu.

²⁷⁴ Mormon 2:1; 3:11; 5:1.

²⁷⁵ Milbrath, *Star Gods of the Maya*, 239; Thompson, *Maya Hieroglyphic Writing: Introduction*, 215.

was apparently formally appointed and took up his duties as the official Nephite record keeper in the land of Zarahemla. The Set-sum 6423 also symbolizes 73 sidereal periods of Mercury. The number 73, when viewed as an age (“after that ye are seventy and two years old”²⁷⁶), describes the age when nine of the New World disciples began to pass away. Mormon₂’s life, as official Nephite record keeper, had been preserved by the Lord since he was thrust into the Nephite limelight at the age of 11. As he finished his personal book, he was older than 72 years of age. Are these age related numbers merely coincidental?

The Set-sum 1010 implies the other commensuration of a Mercury period with a Venus period. Notably, the Set-sum 1010 symbolizes both 11.5 Mercury sidereal periods and 4.5 Venus sidereal periods. At roughly 11.5 years of age, Mormon₂ apparently became engaged in his priesthood duties as the official Nephite record keeper. By 16 years of age (11.5+4.5 = 16), he had already commanded an army of Nephites “against [another invading army of] the Lamanites”.²⁷⁷ Are these age related numbers also unplanned?

The total Set-sum of all formal and informal expressions, utilizing every number-term engraved by Mormon₂ in his personal book, is the number 7996. Table 2.O lists this Set-sum with a single close accord: 69 mean synodic periods of Mercury (about 7995.5503 days). At about the age of 69, Mormon₂, “seeing that the Lamanites were about to overthrow the land ... did go to the hill Shim and did take up all the records which Ammaron had hid up unto the Lord”. His first duty was his priesthood duty, to preserve the official plates of Nephi. Then, to safeguard the records until they could be hidden in a safe but still accessible place, Mormon₂ again took up the “command ... of their armies”.²⁷⁸ Thus, the Book of Mormon interweaves the “age/official record keeper/duty to the Lord” symbolism of the Set-sums 1010, 6423, and 7996 with the Venus “warrior” symbolism of the Set-sums 6423 and 1573. This interwoven “age/duties” aspect of the proposed symbolism suggests further that a symbolic priesthood title would be an appropriate appositive for his personal record: “The Book of Mormon, the official keeper of the Nephite records and commander of their armies”. But even these symbolic planetary appositives do not exhaust the Mercury related symbolism.

The fact that the Set-sums 6423 and 7996 respectively imply the sidereal and synodic periods of Mercury must be examined further. The symbolism of both periods also is implied by the related number 33, the total number of temporal-expressions engraved by Mormon₂ in the Book of Mormon. As noted in Section 2.1.4 above, the number 33 appears to represent the prophesied number of years to be completed in the Messiah’s mortal life before his crucifixion. The prophecy was delivered to the Nephites by a Lamanite prophet.²⁷⁹ The record of its fulfillment was created by the then-current official Nephite record keeper, Nephi₃, in a terrifying situation where the Nephites “were in a state of awful wickedness”, the chief judge had been murdered, and the civil government had been overthrown by a secret cabal of chief judges, lawyers, high priests, and their henchmen. The “church” and its cadre of priest-astronomers had been “broken up in all the land save it were among a few of the Lamanites which were converted unto the true faith; and they would not depart from it, for they were firm and steadfast and immovable, willing with all diligence to keep the commandments of the Lord”.²⁸⁰

²⁷⁶ 3 Nephi 28:3.

²⁷⁷ Mormon 1:6-7; 2:1-2.

²⁷⁸ Mormon 4:16-5:2.

²⁷⁹ Helaman 14; 3 Nephi 8.

²⁸⁰ 3 Nephi 6:14-8:7.

Assuming the use of a 365-day solar-based calendar, an interval of 33 NC calendar years is 12045 days. Nephi₃'s record, as abridged by Mormon₂ in Third Nephi, reported that the sign of destruction and darkness related to the mortal Messiah's death began on the fourth day of the 34th NC calendar year and lasted for three days. Then, on the morning of the eighth day of the 34th year, "the darkness dispersed from off the face of the land and the earth did cease to tremble".²⁸¹ At that point, 12052 days had passed since the birth date of the Messiah. An interval of 12052 days implies close accords with 33 mean tropical years (about 12052.9922 days), 137 mean sidereal periods of Mercury (about 12051.8064 days), and 104 mean synodic periods of Mercury (about 12051.2642 days). By these close accords, Mercury is associated with both the sun and the risen Lord. This aspect of the proposed symbolism suggests that a third symbolic appositive may be added to the title of Mormon₂'s personal record:

The Book of Mormon
A disciple of Jesus Christ
The official keeper of the Nephite records
The commander of their armies

Mormon₂ simply entitles his personal record "The Book of Mormon". Then, immediately following the title, he restates and seems to emphasize its simplicity. "And now I Mormon make a record of the things which I have both seen and heard and call it the book of Mormon."²⁸² Astronomically, he symbolizes three title appositives that describe this particular "Mormon" and he unites himself with the risen Lord who visited, directed, and protected him until he completed his record keeping duties and delivered the attached sets of plates into the guardianship of his son Moroni₂.

To complete this examination of the Book of Mormon, two additional chronological issues must be examined in detail. The first is the proposed date of the inauguration of the NC era. Without a determination of that date, it is not possible to propose the dates associated with Mormon₂'s birth, calling, and installation as the official Nephite record keeper. All four dates require analysis. The text most closely related to the beginning of the NC era appears in the first two chapters of Third Nephi. Once that text has been examined, the related text in the Book of Mormon may be analyzed. Thus, this source book continues in Part 3 of this Division by examining the chronological structure and symbolism associated with the Messiah's birth date and the creation of a third Nephite era to preserve and honor that date.

²⁸¹ 3 Nephi 8:5-10:9.

²⁸² Mormon 1:1.