

## Part 5: Chronological symbolism in the plates of Mormon: Forced unity, failed harmony

This Part analyzes chronological symbolism in each of the third and fourth narrative groups of Third Nephi. Twenty temporal-expressions<sup>1</sup> and their year-related narratives constitute the third narrative group. They are followed by ten more temporal-expressions<sup>2</sup> and their year-related narratives, which constitute the fourth narrative group. Table 5.A of this Division lists these 30 expressions together with their proposed analytical types and structural categories. These two narrative groups report events in a 15-year period that began in the 16th year of the Nephite Christian (“NC”) era and ended with the close of the 30th NC calendar year. Hence, the first two narrative groups of Third Nephi (29 temporal-expressions) report the passage of time in the first 15 years of the NC era and the following two narrative groups (30 temporal-expressions) describe events in the next 15 years of this era. This Part concludes with an examination of number pattern symbolism suggested by the first four narrative groups of Third Nephi based on the complementary view that their structure is two composite narrative groups consisting of 29 and 30 temporal-expressions, respectively.

### 5.1 The third narrative group of Third Nephi

The third narrative group begins with the narrative and temporal-expression in 3 Nephi 3:1. A Gaddianton governor sent a letter to the Nephite governor asking the Nephites to unite with the Gaddianton people, give up the Nephite religion, and relinquish control of their lands. The letter also threatened a resumption of their devastating war “on the morrow month” if they did not agree to the requests.<sup>3</sup> The Nephites did not agree. Instead, they prepared for a resumption of the war, which, contrary to the threatening letter, did not occur in the 16th, 17th, or even 18th NC calendar year. This respite from war permitted the Nephites to gather from their various lands into a single area, share their provisions, combine their labors, and fortify their settlement in a unified defense against the Gaddianton armies. The deserted Nephite lands and cities began to be invaded in the latter end of the 18th NC year,<sup>4</sup> but no battle with the Gaddianton armies occurred until the sixth month of the 19th NC year.<sup>5</sup> By the end of the 25th NC year, the unified Nephite defense appeared to have annihilated the invaders. The 20th year-related narrative of this group notes that “thus passed away the twenty and eighth year; and the people had continual peace.”<sup>6</sup> Hence, the third narrative group not only duplicates the number of temporal-expressions that were part of the initial narrative group of Third Nephi, but the reported interval begins and

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<sup>1</sup> 3 Nephi 3:1, 22; 4:1, 4-6, 15-16; 5:7-8; 6:1, 4, 9.

<sup>2</sup> 3 Nephi 6:10, 14, 16-17, 19; 7:1, 8, 13.

<sup>3</sup> 3 Nephi 3:1-10.

<sup>4</sup> Based on the analysis in Part 3 of this Division, the latter end of the 18th NC year (3 Nephi 4:1) began on the little New Year, 10 Sun 0 B or 14th month, 2 December 13 CE (1726144). That date also was the New Year (0 B) of the 670th Olmec year and the last day (4 X) of the 446th Kaminaljuyu year. The Olmec New Year misalignment with the tropical year was 162 days and about 34.3 minutes. On the following day, the Kaminaljuyu New Year misalignment with the tropical year was 108 days and about 22.8 minutes. Whether such accurate observations influenced the timing of the Gaddianton invasion probably cannot be known. The latter end of the 18th NC year would have concluded on 10 Serpent 4 X or 19th month, 16 March 14 CE (1726248); so, the attack appears to have been planned as a major dry season territorial invasion.

<sup>5</sup> The seating day of the sixth 20-day month of the 19th NC year (3 Nephi 4:5-7, 11) evidently occurred on 7 Deer 0 L, 25 June 14 CE (1726349), after the rainy season had begun and the Gaddianton robbers became convinced that the Nephites would not be vulnerable because of a need to plant new crops.

<sup>6</sup> 3 Nephi 3:11-6:9.

ends with what appear to have been three-year periods of Nephite unity and peace (the 16th through 18th NC years and the 26th through 28th NC years). The seven intervening years (the 19th through 25th NC years) each apparently involved operations of the war that either destroyed or pacified Gaddianton warriors.

The 20 temporal-expressions of the third narrative group and their associated narratives, in consecutive order, may be described as follows.

*“in the sixteenth year from the coming of Christ” (3 Nephi 3:1)*

The first expression of the third narrative group occurs with the year-related narrative statement, “Lachoneus the governor of the land received an epistle from the leader and the governor of this band of robbers”. The express singular or A year-term is the first of 14 such year-terms in this narrative group. The stated ordinal or K number-term (the first of 15 such number-terms in this group) and the official name or D time-term (the only express time-term in the group) clearly identify a specific calendar year within the NC era context. With the preposition *in* as the Q narrative-link, this temporal-expression in the plates of Mormon may be categorized as a formal, within-year, whole-year or *A* expression (the first of six such expressions in this narrative group). The number-term of this expression provides Mormon<sub>2</sub>'s related Sets with the cardinal number 16.

*“in the seventeenth year” (3 Nephi 3:22)*

The second whole-year or *A* expression of the third narrative group occurs with another year-related narrative statement, “the proclamation of Lachoneus had gone forth throughout all the face of the land”. The expression includes a prepositional or Q narrative-link, an express singular or A year-term, and a stated ordinal or K number-term. The omitted or H time-term is the first of 19 such time-terms in this narrative group. In the overall structure of time-terms in the plates of Mormon, H time-terms appear to be disregarded;<sup>7</sup> however, within the small plates of Nephi and the narrative groups of the plates of Mormon, H time-terms appear to have a symbolic purpose.<sup>8</sup> This expression supplies the related Sets with the cardinal number 17.

*“of the year” (3 Nephi 3:22)*

The third temporal-expression of this narrative group appears in the specifying phrase, “in the latter end of the year”, which immediately follows the previous year-term. This would be a formal latter-end expression if it had a stated ordinal number-term. However, the common or M number-term (the determiner *the*) refers to the prior number-term, “the seventeenth”; so, this is an informal, referred-quantity, referred-year-relation or *M* expression. By the latter end of this year, the people of Nephi “by thousands and by tens of thousands ... had all gone forth to the place which had been appointed that they should gather themselves together to defend themselves against their enemies”. This informal *M* expression provides either no quantity or the cardinal number 17 to the potential Sets.

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<sup>7</sup> See Division 1, Part 3, Section 3.8.

<sup>8</sup> See Division 2, Part 2, Sections 2.1, 2.2.3, 2.4; Division 3, Part 2, Section 2.3.4; Part 3, Sections 3.1, 3.2.3, 3.2.4, 3.3.2; Part 4, Section 4.1.1.

*“of the eighteenth year” (3 Nephi 4:1)*

The fourth temporal-expression of the third narrative group is a formal, within-year, latter-end or *C* expression. The year-related narrative reports that “in the latter end” of this year “those armies of robbers” who “had prepared for battle ... began to come down and to sally forth from the hills and out of the mountains ... and began to take possession of all the lands which had been deserted by the Nephites and the cities which had been left desolate”. This formal *C* expression supplies the cardinal number 18 to the related Sets.

*“of seven years” (3 Nephi 4:4)*

The fifth temporal-expression appears in a narrative note about the Nephites “having reserved for themselves provisions and horses and cattle and flocks of every kind that they might subsist for the space of seven years, in the which time they did hope to destroy the robbers from off the face of the land”. This expression includes the first of four express plural or *B* year-terms and the first of three stated cardinal or *L* number-terms in this narrative group. This informal, stated-quantity, stated-time-relation or *Q* expression provides Mormon<sub>2</sub>'s related Sets with the cardinal number 7.

*“the eighteenth year did pass” (3 Nephi 4:4)*

This is the first of the six formal, year-end, pass-away or *D* expressions in this narrative group. The verbal or *R* narrative-link connects the associated narrative to an express singular or *A* year-term, a stated ordinal or *K* number-term, and an omitted or *H* time-term. While the Gaddianton robbers searched for plunder and food, the Nephites remained “in one body and having so great a number” to defend themselves, their substance, and their provisions. And “thus the eighteenth year did pass away”. This temporal-expression supplies another cardinal number 18 to the potential Sets.

*“in the nineteenth year” (3 Nephi 4:5)*

The seventh temporal-expression of the third narrative group is a third whole-year or *A* expression. In the 19th NC calendar year, the leader of the robbers “found that it was expedient that he should go up to battle against the Nephites, for there was no way that [the robbers] could subsist save it were to plunder and rob and murder”. This expression provides the cardinal number 19 to the related Sets.

*“in this year” (3 Nephi 4:6)*

The eighth expression is the second of the two informal, referred-quantity, referred-year-relation or *M* expressions in this narrative group. The determiner *this* refers to the previously specified 19th NC calendar year. In “the sixth month” of this year, the robbers “durst not spread themselves upon the face of the land insomuch that they could raise grain, lest the Nephites should come upon them and slay them”; so, the robbers attacked and a “great and terrible” battle commenced, in which the Nephites defeated the robbers and drove them back to the “borders of the wilderness”.<sup>9</sup> The common or *M* number-term supplies either no quantity or 19 to the potential Sets.

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<sup>9</sup> 3 Nephi 4:6-13.

*“this nineteenth year did pass” (3 Nephi 4:15)*

The Nephite armies “did return again to their place of security”. The ninth temporal-expression notes that “this” 19th year ended “and the robbers did not come again to battle”. This expression is the second of the three potential “*R* or *D*” expressions that appear in Third Nephi and the Book of Mormon.<sup>10</sup> Section 2.5 of Part 2 of this Division examined all three expressions and concluded that they should be considered *D* expressions. The substitution of the determiner *this* for the determiner *the* appears to be immaterial to the formal categorization of this expression. That conclusion fit well with the proposed symbolism of the expressions in 3 Nephi 2:13 and Mormon 3:4<sup>11</sup> and it appears to work well with the proposed symbolism of this expression in 3 Nephi 4:15. Based on the analysis in Section 2.5 of Part 2 of this Division, this expression is considered a formal, year-end, pass-away or *D* expression. This temporal-expression provides another cardinal number 19 to the related Sets.

*“in the twentieth year” (3 Nephi 4:15)*

The concluding narrative of this verse states that “neither did [the robbers] come again in the twentieth year”. This tenth temporal-expression is the fourth formal, within-year, whole-year or *A* expression in the third narrative group of Third Nephi. It supplies the cardinal number 20 to Mormon<sub>2</sub>’s related Sets.

*“in the twenty and first year” (3 Nephi 4:16)*

With the 11th temporal-expression (fifth *A* expression) of this narrative group, the Gaddianton strategy changed completely. The robbers “did not come up to battle but they came up on all sides to lay siege round about the people of Nephi”. A new leader of the Gaddianton robbers apparently adopted this strategy in ignorance of the “much provision which [the Nephites] had laid up in store”. Consequently, the siege persisted until “the robbers were about to perish with hunger ... [a]nd the Nephites were continually marching out by day and by night and falling upon their armies and cutting them off by thousands and by tens of thousands”.<sup>12</sup> In the end, the Nephites also blocked the robbers’ escape routes to the north and south, “[a]nd there were many thousands which did yield themselves up prisoners unto the Nephites, and the remainder of them were slain”.<sup>13</sup> Then a process began in which the prisoners were taught to “repent of their sins and enter into a covenant that they would murder no more”. Those who made the covenant “were set at liberty”, but those who would not “were condemned and punished according to the law” for their murders.<sup>14</sup> This temporal-expression provides the cardinal number 21 to the potential Sets.

*“had the twenty and second year passed” (3 Nephi 5:7)*

The rehabilitation or execution process apparently continued for the following four years. This verse includes four temporal-expressions qualified by the adverb

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<sup>10</sup> 3 Nephi 2:13; 4:15; Mormon 3:4.

<sup>11</sup> See Division 3, Part 2, Sections 2.5.1-2.5.3; Part 4, Section 4.1.4.

<sup>12</sup> 3 Nephi 4:16-21.

<sup>13</sup> 3 Nephi 4:22-27.

<sup>14</sup> 3 Nephi 5:4-6.

*thus*, which refers to the previously described process, and by the verb *had ... passed*, the initial narrative-link that gives operational meaning to the three following conjunctive or S narrative-links. This pass-away or *D* expression supplies the related Sets with the cardinal number 22.

*“and the twenty and third year” (3 Nephi 5:7)*

The 13th temporal expression is an informal, mortal-time, appended or *J* expression that provides the cardinal number 23 to the potential Sets.

*“and the twenty and fourth” (3 Nephi 5:7)*

The 14th temporal expression is another *J* expression. Its year-term is implied. This expression supplies the cardinal number 24 to the potential Sets.

*“and the twenty and fifth” (3 Nephi 5:7)*

The 15th temporal expression is the third *J* expression in this narrative-group. Its year-term also is implied. This expression provides the cardinal number 25 to the related Sets.

*“had twenty and five years passed” (3 Nephi 5:7)*

The 16th temporal-expression (the fifth expression in this verse) creates the fourth pass-away or (*D*) letter-set in the third narrative group of Third Nephi: “thus had twenty and five years passed away”. In this brief year-related narrative, the adverb *thus* refers not only to the lengthy rehabilitation or execution process, but to the iniquity and dissensions involving the Gaddianton way of life that had plagued the Nephites from the beginning of the NC era. However, by this point, “there was not a living soul among all the people of the Nephites which did doubt in the least thing in the words of all the holy prophets which had been spoken” and “they did forsake all their sins and their abominations and their whoredoms and did serve God with all diligence day and night”.<sup>15</sup> This temporal-expression supplies the cardinal number 25 to the potential Sets.

*“of twenty and five years” (3 Nephi 5:8)*

The 17th temporal-expression is part of Mormon<sub>2</sub>'s inserted comments about his identity, his testimony of Jesus Christ, and his abridgment of the Nephite records: “this book cannot contain even a hundredth part of what was done among so many people in the space of twenty and five years”.<sup>16</sup> This is the second of the two informal, stated-quantity, stated-time-relation or *Q* expressions in this narrative group. This expression provides another cardinal number 25 to the potential Sets.

*“in the twenty and sixth year” (3 Nephi 6:1)*

The 18th temporal-expression returns to the abridged narratives and signals a new time for “the people of the Nephites”. In this year, they “did all return to their own lands ... every man with his family, his flocks and his herds, his horses and his cattle, and all things whatsoever did belong unto them”. In addition, “they granted unto those robbers which had entered into a covenant to keep the peace of the

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<sup>15</sup> 3 Nephi 5:1-3.

<sup>16</sup> 3 Nephi 5:8-26.

land, which were desirous to remain Lamanites, lands according to their numbers, that they might have with their labors wherewith to subsist upon. And thus they did establish peace in all the land.”<sup>17</sup> If formal within-year expressions are considered separately from formal year-end expressions and informal expressions, the seven within-year expressions combine into three sequential (A)(C)(A) letter-sets. This sixth and last A expression of the third narrative group supplies the cardinal number 26 to the related Sets.

*“the twenty and sixth and seventh years passed” (3 Nephi 6:4)*

The 19th temporal-expression in this narrative group is unique in the extant text of the *Book of Mormon*. In this formal, year-end, pass-away or D expression, two coordinated single years are identified by the number-term (“the twenty and sixth and seventh”) but not by an express time-term. This differs from an earlier temporal-expression in Helaman 4:8, where two coordinated single years are identified by number and by an era name (“the fifty and eighth and ninth years of the reign of the judges”) in what appears to be an informal, stated-quantity, stated-time-relation or Q expression. For this 19th temporal-expression in the third narrative-group of Third Nephi, the preceding and following year-related expressions make it clear that the years mentioned are NC calendar years.<sup>18</sup> The Nephites “began again to prosper and to wax great” in the 26th and 27th NC years. This 19th expression also provides an example of ellipsis, a common technique in English for removing a word or phrase that need not be repeated.<sup>19</sup> In this instance, the omitted phrase is *and twenty*. This omitted phrase implies alternative Set-sums. As stated, this expression may provide the cardinal number 33 ( $20+6+7 = 33$ ) to the potential Sets. However, with the meaning of the ellipted phrase included, this expression provides the alternative cardinal number 53 ( $20+6+20+7 = 53$ ) to the related Sets.

*“passed ... the twenty and eighth year” (3 Nephi 6:9)*

The 20th temporal-expression of the third narrative group of Third Nephi appears with two brief narrative statements: “thus passed away the twenty and eighth year; and the people had continual peace”. The adverb *thus* refers to earlier statements about “great order in the land”, “laws [formed] according to equity and justice”, “appointed leaders which had established this great peace in the land,” “many cities built anew”, “many old cities repaired”, and “many highways cast up and many roads made”.<sup>20</sup> The 20th expression concludes the fifth (D) letter-set in this narrative group. However, if formal year-end expressions are considered separately from formal within-year expressions and informal expressions, the five separate (D) letter-sets combine into a single (D) letter-set. This temporal-expression supplies the cardinal number 28 to the potential Sets.

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<sup>17</sup> 3 Nephi 6:3.

<sup>18</sup> 3 Nephi 2:8; 3:1; 5:7-8; 6:1, 9; 4 Nephi 1:21.

<sup>19</sup> See Division 1, Part 4, Section 4.3.

<sup>20</sup> 3 Nephi 6:4-8.

### 5.1.1 A narrative level of symbolism

Like the previous two narrative groups of Third Nephi and the initial narrative group of the Book of Mormon, the third proposed narrative group appears to present a separate level of symbolism.<sup>21</sup> This narrative level of symbolism is indicated by the following textual facts.

Within the third year-term letter pattern in the plates of Mormon (ABABABAB)(ACB)(ABABABAB)(ACACBCB)(ABABABAB),<sup>22</sup> the year-terms of the third narrative group of Third Nephi form part of the last (A) letter-set and all of the last (B) letter-set in the first (ABABABAB) letter-group,<sup>23</sup> all the letter-sets in the (ACB) letter group,<sup>24</sup> and the first (A) and (B) letter-sets and part of the second (A) letter-set in the second (ABABABAB) letter-group.<sup>25</sup>

The omitted or H time-terms are disregarded in the letter patterns of express time-terms that occur throughout the extant plates of Mormon, but they may be deemed to occur between the (D) and (G) letter-sets in the (FDG) letter-group that begins the final express time-term letter-group (FDG[D]GDF) in these plates.<sup>26</sup>

The first two stated ordinal or K number-terms<sup>27</sup> complete the (K) letter-set that, in the second narrative group of Third Nephi, began the central (K[M]K) letter-group<sup>28</sup> of the seventh number-term letter pattern (MKL)(K[M]K)(LKM) in the plates of Mormon.<sup>29</sup> The (M) and (K) letter-sets that complete the central (K[M]K) letter-group and all the letter-sets in the (LKM) letter-group<sup>30</sup> also occur in the third narrative group of Third Nephi. The first (K) and (L) letter-sets and part of the second (K) letter-set<sup>31</sup> of the eighth number-term letter pattern in the plates of Mormon (KLK)(MKM or MKMKM)(KLK)<sup>32</sup> also are composed of number-terms in the third narrative group of Third Nephi.

Similarly, the formal within-year (ACA) letter-group<sup>33</sup> helps to form the latter (A) letter-set in the initial (ABABA) letter-group,<sup>34</sup> the complete (C) letter-set,<sup>35</sup> and part of the first (A) letter-set<sup>36</sup> in the second (ABABA) letter-group of the final within-year letter pattern in the plates of Mormon (ABABA)(C)(ABABA).<sup>37</sup>

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<sup>21</sup> See Division 3, Part 3, Sections 3.3.1-3.3.3; Part 4, Section 4.1.5.

<sup>22</sup> 3 Nephi 1:4-4 Nephi 1:48; see also Division 3, Part 1, Section 1.11.1.

<sup>23</sup> 3 Nephi 3:1-4:4.

<sup>24</sup> 3 Nephi 4:4-5:8.

<sup>25</sup> 3 Nephi 6:1, 4, 9.

<sup>26</sup> 3 Nephi 2:8-Mormon 8:6; see also Division 3, Part 1, Section 1.11.1.

<sup>27</sup> 3 Nephi 3:1, 22.

<sup>28</sup> 3 Nephi 2:10-3:22.

<sup>29</sup> 3 Nephi 1:18-4:6; see also Division 3, Part 1, Section 1.11.1.

<sup>30</sup> 3 Nephi 4:4-6.

<sup>31</sup> 3 Nephi 4:15-6:9.

<sup>32</sup> 3 Nephi 4:15-7:14; see also Division 3, Part 1, Section 1.2.3.

<sup>33</sup> 3 Nephi 3:1, 22; 4:1, 5, 15-16; 6:1.

<sup>34</sup> Helaman 11:36-3 Nephi 3:22.

<sup>35</sup> 3 Nephi 4:1.

<sup>36</sup> 3 Nephi 4:5, 15-16; 6:1.

<sup>37</sup> Helaman 11:36 - Mormon 5:6; see also Division 3, Part 1, Section 1.11.2.

The formal year-end (*D*) letter-group<sup>38</sup> represents the central [*D*] letter-set of the unique (*DE*[*D*]*ED*) year-end letter-group in these plates.<sup>39</sup>

Hence, in these five instances, the structures of the third narrative group of Third Nephi appear to be organized at a narrative level that overlaps, but is separate from parts of longer, often multi-book, placement patterns of year-, time-, and number-terms, and formal within-year and year-end expressions in the plates of Mormon.

### 5.1.2 Counting with fingers and toes

Number patterns in the initial and second narrative groups of Third Nephi appeared to symbolize human hands indicating the number nine or gesturing (with three digits and two digits). The 20 year-terms in the third narrative group also appear in a distinctive order that may suggest counting with both hands and feet. The first four express singular or A year-terms are followed by a single express plural or B year-term in a (4 and 1) number pattern that may indicate the four fingers and thumb of one hand. The next eight express singular or A year-terms are followed by two implied singular or C year-terms. As a group of singular year-terms, these ten seem to suggest the 10-count of both feet. The implied meanings of the two C year-terms are largely derived from the preceding eight A year-terms and from all ten associated number-terms. The last five temporal-expressions begin with two B year-terms followed by single A, B, and A year-terms that may suggest another (3 and 2) number pattern for the second hand.<sup>40</sup> The 20 temporal-expressions also include 15 stated ordinal or K number-terms, three stated cardinal or L number-terms, and two common or M number-terms, perhaps suggesting another way of counting or communicating quantitative information with 20 human digits. Moreover, the symbolism of these 20 digits in at least some Mesoamerican contexts may suggest again that the Nephites' prophesied Messiah had become a human being and that the base-20 solar calendar count of their new era celebrated that birth.<sup>41</sup>

### 5.1.3 Symbolizing Mesoamerican 365-day calendar months

The 20 time-terms of the third narrative group occur in a contrasting pattern. A single official or D time-term is followed by 19 omitted or H time-terms. This number pattern (1 followed by 19) suggests a Mesoamerican 20-day month consisting of the seating day of the month followed by the 19 numbered days of the month. Eighteen temporal-expressions in the third narrative group of Third Nephi include 15 stated ordinal or K number-terms and three stated cardinal or L number-terms. These 18 stated number names may suggest 18 of the 20-day months. However, 18 of such months total only 360 days; so, for a 365-day calendar year, an extra month composed of five days is needed.<sup>42</sup> This short month possibly is suggested by the five consecutive prepositional or Q narrative-links which connect the first five year-terms and the first five time-terms to their associated narratives. Thus, the initial five temporal-expressions, when sorted by their Q narrative-links, also may symbolize a five-day month that consists of a seating day (again evidenced by the single official time-term) followed by four numbered days (evidenced this time by just four omitted time-terms).

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<sup>38</sup> 3 Nephi 4:4, 15; 5:7; 6:4, 9.

<sup>39</sup> 3 Nephi 1:26 - 4 Nephi 1:18; see also Division 3, Part 1, Section 1.11.2.

<sup>40</sup> See Division 3, Part 3, Section 3.2.2; Part 4, Section 4.1.4.

<sup>41</sup> See Division 2, Part 3, Section 3.9; Division 3, Part 2, Section 2.4.7.

<sup>42</sup> See Division 2, Part 3, Section 3.10; Thompson, *Maya Hieroglyphic Writing: Introduction*, 119-21.



Considering the proposed 365-day length of each of Mormon<sub>2</sub>'s years of age,<sup>43</sup> one might also consider the number pattern (1 followed by 19) as suggesting the first 20-day month of an infant's life. The birth date, apparently a date also to be remembered in the context of the 260-day calendar,<sup>44</sup> may be represented by the official or D time-term, which is then followed by 19 omitted or H time-terms that symbolize the remaining days of the infant's first month, which probably was not an exact calendar month. The likelihood of this potential symbolism may be strengthened by the separation of the 20 associated number-terms into nine letter-sets. A (9 within 20) number pattern possibly implies both the birth and mortality of every human being. In a narrative group dominated by the lengthy Gaddianton conflict and its aftermath, the nine lords of the night and underworld<sup>45</sup> may have seemed ever-present.

#### 5.1.4 Interwoven patterns of the numbers 7, 13, and 20

Thirteen of the 20 temporal-expressions in the third narrative group of Third Nephi are formal within-year (*A* or *C*) or year-end (*D*) expressions. The other seven temporal-expressions are informal mortal-time (*J*), referred-quantity (*M*), or stated-quantity (*Q*) expressions. Again, the two interwoven numbers 13 and 20 may be deemed to suggest the Mesoamerican ritual almanac, the 260-day calendar, “*the* centerpiece of the Maya calendar system”.<sup>46</sup> Its days were “[e]verywhere sacred”, in addition to being “preserved in oral and written form with remarkable tenacity and conservatism”.<sup>47</sup> If a 13-day cycle is symbolized as being interwoven with a 20-day cycle by the 13 formal expressions, then the seven informal expressions suggest a similar interweaving, a 7-day cycle of time also is indicated, and these 13 formal and seven informal expressions replicate similar interwoven patterns of the numbers 7, 13, and 20 in the year-terms, time-terms, and narrative-links that occurred in the initial narrative group of Third Nephi.<sup>48</sup>

Section 5.2.1 below introduces the possibility that seven-part letter-set patterns in the year-terms, number-terms, narrative-links, and formal expressions of the third narrative group of Third Nephi also might represent the seven-year war of Gaddianton army annihilation. However, the associated narratives also describe the united faith and righteousness of the Nephites; so, such patterns also could imply the worshipful maintenance of their unique 7-day week.<sup>49</sup> Moreover, the potential (*AC*)(*DAD*[*A*]*DAD*) formal letter-groups in this third narrative group may suggest a (7 within 9) letter-set number pattern perhaps related to the more difficult nightly labors and daily calendar maintenance of the uprooted Nephite priest-astronomers.<sup>50</sup>

## 5.2 Set-context symbolism in the 20 temporal-expressions

Eighteen number-terms in the third narrative group of Third Nephi include 15 stated ordinal or K number-terms and three stated cardinal or L number-terms. The 18 K and L number names of this narrative group may be examined by themselves and by adding them into every possible

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<sup>43</sup> See Division 3, Part 2, Section 2.1.3; Part 3, Sections 3.8-3.9.

<sup>44</sup> See Division 3, Part 2, Section 2.4.7.

<sup>45</sup> See Division 2, Part 2, Section 2.5.3; Part 3, Section 3.2.20.

<sup>46</sup> Aveni, *Empires of Time*, 197, italics in the original. See also Schele and Freidel, *A Forest of Kings*, 79-81; Edmonson, *The Book of the Year: Middle American Calendrical Systems*, 1-5.

<sup>47</sup> Edmonson, *The Book of the Year: Middle American Calendrical Systems*, 169.

<sup>48</sup> See Division 3, Part 3, Section 3.2.4.

<sup>49</sup> See Division 1, Part 1, Section 1.9.4.

<sup>50</sup> See Division 2, Part 2, Sections 2.4.4, 2.5.1-2.5.4.

combination for a total of 262,143 stated numbers and combination sums. Two additional common or M number-terms refer to prior stated or implied 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 two number names referenced by the M number-terms may be considered to create 786,432 more combinations with each other and the 18 stated number names. 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 analysis in this Section 5.2 is not based on that latter assumption. The following analysis is based on the assumptions that the texts of the third narrative group of Third Nephi both limit and direct the combination process. The significant textual facts are the diction, language typology, and sequential placement of the temporal-expressions, as they may be further qualified by the secondary language of their associated narratives. These textual facts are assumed to be consequential. They appear to limit the 20 number-terms in the third narrative group to the 233 potential Sets, 396 alternative Set-sums, and 198 unique Set-sum values analyzed below. These numbers represent the potential Sets, alternative Set-sums, and unique Set-sum values that appear to be created by the sequential textual facts of these 20 temporal-expressions. The remaining hundreds of thousands of other possible combinations and their combination sums are deemed to be incidental rather than limited and directed by the text of this third narrative group.

The analytical types and structural categories related to the year-, time-, and number-terms, narrative-links, and temporal-expressions in the third narrative group are listed in Table 5.A. Their associated letter-sets, letter-groups, potential Sets of number-terms, Set-contexts, and related accords with the interval lengths set forth in Table 3.A of Division 2 are listed in Table 5.B of this Division. As with the potential Sets identified in Parts 3 and 4 of this Division, the Sets identified and analyzed in this Part 5 are deemed “potential” because at times their intended chronological structures are uncertain.

### 5.2.1 Chronological accords related to year-term letter-sets

All three analytical types of year-terms appear in the 20 temporal-expressions of the third narrative group of Third Nephi: express singular or A; express plural or B; and implied singular or C. Their ABACBABA letter pattern consists of eight letter-sets, which appear to be organized at a narrative level that overlaps, but is separate from part of a much longer placement pattern of year-terms in the plates of Mormon.<sup>51</sup> The multi-book, year-term placement pattern includes 101 year-terms (organized as 34 letter-sets) that begin with the fifth year-term in Third Nephi and continue to the first temporal-expression in the last verse of Fourth Nephi. However, as noted in Section 5.1.1 above, this lengthy placement pattern is consistent with, but apparently quite different from, the pattern of year-terms in the third narrative group of Third Nephi and likely is not relevant to the narrative level of analysis examined here.

The eight year-term letter-sets of the third narrative group perhaps could be viewed like the eight year-term letter-sets of the initial narrative group in Third Nephi. The first eight year-term

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<sup>51</sup> See Division 3, Part 1, Section 1.2.1.

letter-sets in this book presented a simple (ABABABAB) letter-group that also may be viewed as four (AB) letter-groups. If the year-term letter-sets of the third narrative-group were viewed the same way, the letter pattern would be four more clear-cut letter-groups: (AB)(AC)(BA)(BA); however, only the first of these four letter-groups is identical to the (AB) letter-groups of the initial narrative group. The last two letter-groups of the third narrative group are alike, but their pattern is reversed from that of the initial narrative group: (BA) instead of (AB). The analysis of potential Sets in Table 5.B considers these (AB)(AC)(BA)(BA) letter-groups.

Another view of the year-term letter pattern of the third narrative group is to view it first as a seven-part, balanced, but non-reversible (ABA[C]BAB) letter-group, with a central [C] letter-set. This seven-part letter-group is followed by a separate, seemingly extra (A) letter-set. This potential (ABA[C]BAB)(A) pattern initially may seem strange; however, in the third narrative group, there are nine number-term letter-sets, ten narrative-link letter-sets, and nine formal temporal-expression letter-sets all of which may be sorted into seven-part, balanced, and reversible letter-groups that are preceded or followed by a separate, seemingly extra letter-group. These letter patterns that seem to include seven-part, balanced, and reversible letter-groups may be illustrated as follows.

Number-terms: (KM)(KMK[M]KMK) or (KMK[L]KMK)(LK)  
 Narrative-links: (QRQ)(RQR[S]RQR)  
 Formal expressions: (AC)(DAD[A]DAD)

In addition, the two time-term letter-sets (DH) and the five informal temporal-expression letter-sets (*MQM*)(*JQ*) might be thought to indicate seven other letter-sets into which the temporal-expressions of this narrative group could be sorted. Each of these potential letter patterns may be deemed to emphasize seven letter-sets; so, perhaps it should not be surprising that an interval of “seven years” is expressly mentioned in 3 Nephi 4:4 in describing the length of time the Nephites’ combined provisions were expected to last. Moreover, as noted in Section 5.1 above, this seven-year interval is associated with the great Gaddianton war. The seven years follow three years of preparation for that war (the 16th through 18th NC years) and they precede three years of peace, resettlement, and rebuilding (the 26th through 28th NC years). The repetition of seven-part letter patterns seems to be intentional. Hence, potential Sets associated with the (ABA[C]BAB)(A) year-term letter pattern also are considered in Table 5.B.

A third perspective on the year-term letter pattern of this narrative group also may be suggested by the (AB) letter-groups of the initial narrative group of Third Nephi. In this view of the eight letter-sets, a single (AB) letter-group starts the seven-part pattern and another (AB) letter-group ends the (AB)(ACB)(AB) pattern. Again, a separate, seemingly extra (A) letter-set concludes the complete pattern. In between, the three analytical types of year-terms (express singular, implied singular, and express plural) create an (ACB) letter-group.<sup>52</sup> In previous texts, (C) letter-sets have been placed between (A) letter-sets in what appear to be simple (ACA) singular year-term letter-groups.<sup>53</sup> Similarly, after this initial (ACB) letter-group in Third Nephi, the next (C) letter-set may seem to occur in another simple (ACA) singular year-term letter-group in Fourth Nephi. However, the following two (C) letter-sets occur in Fourth Nephi with (B) letter-sets in what appears to be a more complex, combined, seven-part (ACA[C]BCB) letter-group or three letter-groups: (AC)(ACB)(CB).<sup>54</sup> The two potential (ACB) centered letter

<sup>52</sup> 3 Nephi 5:7.

<sup>53</sup> Alma 28:10; 30:2; Helaman 1:13-14; see also Division 3, Part 1, Section 1.2.1.

<sup>54</sup> 4 Nephi 1:1-6.

patterns in Third and Fourth Nephi suggest related symbolism that will be examined later in this Division. The potential Third Nephi Sets associated with the (AB)(ACB)(AB)(A) pattern suggested by this third perspective also are set forth in Table 5.B. In addition to the potential structural patterns described above, Table 5.B includes other potential Sets suggested by the simple sequential placements of the analytical types and structural categories of the 20 temporal-expressions.

The 38 potential Sets associated with year-term letter-sets in the third narrative group of Third Nephi are listed together in the Data section of Table 5.B. These year-term Sets produce 76 alternative Set-sums, 74 unique Set-sum values, and 184 close, near, or relaxed near accords. For definite day counts (e.g., 20-day cycle), only close accords are included in the table. Two square boxes appear in Table 5.B under the category of year-term Set illustration. Each box in the table usually represents a non-quantified alternative to a referenced quantification, which appears in brackets, e.g., “□ or [17]” or, in a few instances, a box may represent an absent number-term. Set-sums that include a referenced quantification also appear in brackets. The number names in the number-term of 3 Nephi 6:4 (“twenty and sixth and seventh”) are illustrated in Table 5.B as “26+7 or 27” or as the alternative Set-sums “33 or 53”. Brackets are not placed around “27” or “53”, even though an ellipted “20” is implied, because a related “20” is stated. The entire number-term in 3 Nephi 6:4 is deemed to be a stated ordinal number-term, rather than being partially stated and partially implied.

One hundred twelve (60.9%) of the 184 potential accords represent close accords. Forty-one more potential accords (22.3%) represent near accords and 31 (16.8%) represent relaxed near accords. Thirty (16.3%) of the 184 potential accords involve factors of single intervals; the other 154 accords (83.7%) involve one or more multiples of intervals or half intervals. Nine (12.2%) of the 74 unique Set-sum values (33, 50, 51, 142, 157, 158, 186, 241, and 374) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord. One deferred question about the potential Set-sum symbolism of these year-term letter-sets should be noted here. Is it merely coincidental that 260 is the larger alternative Set-sum of the potential (ACB) letter-group in Third Nephi? This question is addressed later in this Division when the Fourth Nephi temporal-expressions are compared.

### 5.2.2 Chronological accords related to time-term letter-sets

Just two of the analytical types of time-terms appear in the 20 temporal-expressions of the third narrative group: official name or D; and omitted name or H (a type that appears to be disregarded in the lengthy, express time-term letter patterns of the plates of Mormon). The two (D) and (H) letter-sets form a simple (DH) letter-group in these 20 expressions. The three potential Sets related to this letter-group also are listed in the Data section of Table 5.B. These time-term Sets produce nine alternative Set-sums, but only four unique Set-sum values and 22 close, near, and relaxed near accords. Five time-term Set-sums duplicate a previously listed year-term Set-sum; so, the duplicates’ potential accords are noted in the table by the parenthetical “(see above)”.

Thirteen (59.1%) of the 22 potential accords represent close accords. Two more potential accords (9.1%) represent near accords and seven (31.8%) represent relaxed near accords. Two of the 22 potential accords (9.1%) involve factors of single intervals; the other 20 accords (90.9%) involve one or more multiples of intervals or half intervals. All the unique time-term Set-sum values imply at least one close, near, or relaxed near accord.

### 5.2.3 Chronological accords related to number-term letter-sets

Three proposed analytical types of express number-terms appear in the 20 temporal-expressions of the third narrative group: stated ordinal or K; stated cardinal or L; and common name or M. The nine (K), (L), and (M) letter-sets in the 20 expressions may form three letter-groups with a three-part variable sequence group in the center: (KMK)(LKM)(KLK). As noted in Section 5.2.1 above, these nine letter-sets also may be interpreted as representing four alternative letter-groups, two of which are balanced and reversible. The nine letter-sets may be organized either as (KM)(KLK[M]KLK) or as (KMK[L]KMK)(LK). The potential Sets related to these various letter-groups are included in Table 5.B.

The 48 potential Sets related to these number-term letter-sets are listed in the Data section of Table 5.B. These potential Sets produce 94 alternative Set-sums, 40 unique Set-sum values, and 219 potential close, near, or relaxed near accords. If a number-term Set-sum duplicates a previously listed year-, time-, or number-term Set-sum, the associated accords are noted by the parenthetical “(see above)”.

One hundred twenty-nine (58.9%) of the 219 potential accords represent close accords. Forty-one more potential accords (18.7%) represent near accords and 49 (22.4%) represent relaxed near accords. Forty (18.3%) of the 219 potential accords involve factors of single intervals; the other 179 accords (81.7%) involve one or more multiples of intervals or half intervals. Four (10.0%) of the 40 unique Set-sum values (17, 37, 373, and 389) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord.

### 5.2.4 Chronological accords related to narrative-link letter-sets

Three of the five analytical types of narrative-links appear in the 20 temporal-expressions of the third narrative group: prepositional or Q; verbal or R; and conjunctive or S. The ten (Q), (R), and (S) letter-sets in the 20 expressions may seem to create four (QR) letter-groups separated by a single (SR) letter-group in a (QR)(QR)(QR)(SR)(QR) pattern. However, Section 5.2.1 above suggests the possibility that this letter pattern may be understood as an initial three-part (QRQ) letter-group followed by a seven-part (RQR[S]RQR) letter-group. Both letter-groups are balanced and reversible. The 56 potential Sets related to these ten letter-sets also are listed in the Data section of Table 5.B. The potential Sets imply 98 alternative Set-sums, 41 unique Set-sum values, and 237 potential close, near, or relaxed near accords.

One hundred thirty-three (56.1%) of the 237 accords represent close accords. Fifty-one more potential accords (21.5%) represent near accords and the remaining 53 (22.4%) represent relaxed near accords. Forty-five (19.0%) of the 237 potential accords involve factors of single intervals; the other 192 accords (81.0%) involve one or more multiples of intervals or half intervals. Four (9.8%) of the 41 unique Set-sum values (155, 170, 211, and 213) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord.

### 5.2.5 Chronological accords related to temporal-expression letter-sets

Three of the seven structural categories of formal expressions are represented in the 20 temporal-expressions of the third narrative group of Third Nephi: whole-year or A; latter-end or C; and pass-away or D. Three of the nine informal structural categories also occur in these

temporal-expressions: appended or *J*; referred-year-relation or *M*; and stated-time-relation or *Q*. The letter pattern of the interwoven formal and informal temporal-expressions is a variable sequence *AMCQDAMDADJDQAD* or *AMCQDAMDADJDAD*.

The second possible informal stated-time-relation or *Q* expression in this narrative group was discussed in Section 1.5.3 of Part 1 of this Division. The compound phrase that includes the temporal-expression in 3 Nephi 5:8 is “in the space of twenty and five years”. Like the other 12 “space of years” expressions in the plates of Mormon, this temporal-expression may be classified as differing significantly from a formal whole-year or *A* expression. The standardized diction of a whole-year expression provides a complete chronological meaning and begins with the preposition *in*. This is followed by a stated number-term that specifies an ordinal number name for a single year, then the express singular noun *year*, and finally either an express time-term stating a Nephite era name or an omitted time-term that may be implied by the number-term’s identification of a Nephite era context. In 3 Nephi 5:8, the compound phrase begins with the preposition *in*; however, the temporal-expression itself begins with the preposition *of*. The number-term is not an ordinal number name for a single year, but a cardinal number name, “twenty and five”. Still, perhaps the number-term may be understood as a single interval, “the space of twenty and five”. This seems to be a material modification of the number-term. The year-term is not singular, but plural. However, the 25 identified years appear to be the first twenty-five calendar years of the NC era context. Hence, this temporal expression might be considered a space of years expression that is close enough to broaden the definition of a typical *A* expression into a formal “whole-year(s)” or “inclusive” *A* expression. The analysis in Table 5.B includes the Sets associated with this highly unlikely possibility.

The formal expression letter pattern in the third narrative group of Third Nephi may be understood as separate within-year (*ACA*) and year-end (*D*) letter-sets. However, following the initial (*AC*) letter-group, four pass-away (*D*) letter-sets may be described as interwoven with three whole-year (*A*) letter-sets in another seven-part, balanced, and reversible (*DAD[A]DAD*) letter-group. The informal expressions may be understood as a variable sequence *MQMJQ* letter pattern that might be sorted consecutively as two letter-groups (*MQM*)(*JQ*). Alternatively, the informal expressions might only suggest three separate mortal time (*J*), referred-quantity (*M*), and stated-quantity (*Q*) letter-sets. Then again, the informal expressions perhaps may be viewed as a (*QJQ*) letter-group, with each temporal-expression having a stated number-term, and a single (*M*) letter-set for the referred-quantity expressions. Table 5.B includes other potential Sets suggested by the sequential placement of the structural categories of these temporal-expressions.

The 66 potential Sets associated with the formal letter-sets in this narrative group are separated in Table 5.B from the 22 potential Sets associated with the informal letter-sets. This separation permits direct comparisons with the formal and informal letter-sets in Part 3 of this Division and with the formal letter-sets in Part 4 of this Division. The 66 potential formal Sets suggest 84 alternative Set-sums, 32 unique Set-sum values, and 189 potential close, near, or relaxed near accords. One hundred fourteen (60.3%) of the 189 potential accords represent close accords. Forty more (21.2%) represent near accords and 35 (18.5%) represent relaxed near accords. Forty-one (21.7%) of the 189 potential accords involve factors of single intervals; the other 148 accords (78.3%) involve one or more multiples of intervals or half intervals. Four (12.5%) of the 32 unique Set-sum values (159, 214, 258, and 269) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord.

The 22 potential informal Sets imply 35 alternative Set-sums, seven unique Set-sum values, and 118 potential close, near, or relaxed near accords. Eighty-seven (73.7%) of the 118 potential accords represent close accords. Ten more (8.5%) represent near accords and 21 (17.8%) represent relaxed near accords. Fifty-seven (48.3%) of the 118 potential accords involve factors of single intervals; the other 61 accords (51.7%) involve one or more multiples of intervals or half intervals. All seven unique, informal, Set-sum values imply at least one close, near, or relaxed near accord.

### 5.2.6 Aggregate data for all potential Sets

The 233 potential Sets in Table 5.B result in 353 alternative Set-sums that imply 969 close, near, or relaxed near accords and 43 alternative Set-sums that do not imply any accord. These aggregate numbers include 176 duplicate Set-sums that imply 493 duplicate accords and 22 duplicate Set-sums that do not imply any accord. When all duplicates are removed from the aggregate data, the 233 potential Sets result in 198 unique Set-sums. Of this number, 21 do not imply any close, near, or relaxed near accord. The remaining 177 unique Set-sums imply the 476 potential close, near, or relaxed near accords listed in Table 5.B. Two hundred seventy-four (57.6%) of the 476 potential accords represent close accords. One hundred (21.0%) of the 476 accords represent near accords and 102 (21.4%) represent relaxed near accords. Eighty-one (17.0%) of the 476 potential accords involve factors of single intervals. The remaining 395 accords (83.0%) involve one or more multiples of intervals or half intervals. Twenty-one (10.6%) of the 198 unique Set-sum values perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord. Table 5.C of this Division lists all 476 of the potential accords based on unique Set-sum values, with their various interval lengths and the 21 Set-sums that do not imply any accord.

### 5.2.7 Lunar symbolism in the third narrative group of Third Nephi

Draconic, sidereal, and synodic month intervals are implied by 114 close accords, 84 near accords, and 89 relaxed near accords listed in Table 5.C. These 287 accords represent 60.3% of the 476 total accords. These accords also suggest a detailed Nephite perception of lunar periods. 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 this list are the five longest ones for each type of lunar month listed in Table 5.C.

<u>Month type</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
draconic	421 or 422 days	27.19355 days	27.21222 days	26.89 minutes
draconic	408 or 409 days	27.23333 days	27.21222 days	30.40 minutes
draconic	394 or 395 days	27.20690 days	27.21222 days	7.67 minutes
draconic	367 or 368 days	27.22222 days	27.21222 days	14.40 minutes
draconic	353 or 354 days	27.19231 days	27.21222 days	28.67 minutes
sidereal	423 or 424 days	27.32258 days	27.32166 days	1.33 minutes
sidereal	409 or 410 days	27.30000 days	27.32166 days	31.19 minutes
sidereal	368 or 369 days	27.29630 days	27.32166 days	36.52 minutes
sidereal	355 or 356 days	27.34615 days	27.32166 days	35.27 minutes
sidereal	327 or 328 days	27.29167 days	27.32166 days	43.19 minutes
synodic	442 or 443 days	29.50000 days	29.53059 days	44.05 minutes
synodic	413 or 414 days	29.53571 days	29.53059 days	7.38 minutes

<u>Month type</u>	<u>Close accords</u>	<u>Implied mean</u>	<u>Modern mean</u>	<u>Difference</u>
synodic	383 or 384 days	29.50000 days	29.53059 days	44.05 minutes
synodic	369 or 370 days	29.56000 days	29.53059 days	42.35 minutes
synodic	354 or 355 days	29.54167 days	29.53059 days	15.95 minutes

Within a relatively short time, two of the draconic month intervals listed above seem likely to have been noticeably too long or too short. One measure is 30.40 minutes too long for each draconic month and the other is 28.67 minutes too short for each draconic month. A count of days that alternated the 408/09-day measure with the 353/54-day measure would produce a combined mean of about 27.21311 days for the draconic month, approximately 3.52 minutes longer than the modern estimate. This combined measure may have permitted relatively accurate predictions of a draconic month interval of 1660 days (about 4.545 tropical years).

Three of the implied means of the depicted sidereal month intervals are shorter than the modern mean. The other two have implied means that are longer than the modern mean. A count of days that alternated the 368/69-day measure with the 355/56-day measure would produce a combined mean of about 27.32075 days for the sidereal month, approximately 1.25 minutes shorter than the modern estimate. This combined measure may have permitted relatively accurate predictions of a sidereal month interval of 1448 days (about 3.964 tropical years).

The implied means of two synodic month intervals listed above are about 44.05 minutes shorter and about 42.35 minutes longer than the modern mean. A count of days that alternated the 442/43-day measure with the 369/70-day measure would produce a combined mean of about 29.52727 days for the synodic month, approximately 1.70 minutes shorter than the modern mean. This combined measure may have permitted relatively accurate predictions of a synodic month interval of 1624 days (about 4.446 tropical years).

### 5.2.8 Lunar and planetary observation symbolism

Two hundred eighty-seven (60.3%) of the 476 accords relate to lunar observation. Another 90 (18.9%) of the 476 accords relate to the ten sidereal or synodic periods of the five planets visible to naked eye observation. The 377 lunar and planetary accords (79.2% of the 476 potential accords) may imply that, during the NC era and in harmony with the astronomical and calendrical activities suggested in earlier Parts of this Division, Nephite priest-astronomers continued to pay close attention to lunar and planetary observation, measurement, and record keeping within the context of a precisely measured backdrop of stars along the ecliptic. The inauguration of a solar based calendar for the NC era seems not to have ended their sky watching, quantitative assessments, and record keeping. Indeed, all these potential accords may constitute an integral part of Mormon<sub>2</sub>'s witness to the accurate time keeping by Nephi<sub>3</sub> and his associated priest-astronomers during the first 28 years of the NC era context.

This concludes the separate analysis of the third narrative group of Third Nephi. This narrative group is only one of the five narrative groups proposed for the chronological structure of this book. As indicated above, this narrative group is followed by the ten temporal-expressions of the fourth narrative group and these two narrative groups may be combined into a composite narrative group reporting the second 15 years of the NC era. The fourth narrative group of Third Nephi is examined next as a distinct collection of ten temporal-expressions.



### 5.3 The fourth narrative group of Third Nephi

The fourth proposed narrative group of Third Nephi begins with the temporal-expression in 3 Nephi 6:10 (“in the twenty and ninth year”) when elite Nephites reverted to pride, disputing, and “great persecutions” presumably of the believers, but possibly also the laboring class in general. The elites, with “their exceeding great riches”, led “the more part of the people [to turn] from their righteousness like the dog to his vomit, or like the sow to her wallowing in the mire”.<sup>55</sup> The temporal-expression in 3 Nephi 6:10, the following nine temporal-expressions, and their year-related narratives detail the destruction of the reign of the judges by a murderous cabal of elite Nephites during the 29th and 30th NC calendar years. The brief harmony of the people of Nephi, which had been compelled by the Gaddianton threat of annihilation, crumbled as the Nephites again “began to be distinguished by ranks according to their riches and their chance for learning” and to be tempted “to seek for power and authority and riches and the vain things of the world”. In the “railing and persecution and all manner of afflictions” that resulted, “the church began to be broken up” in the 29th NC year and, in the following year, “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”.<sup>56</sup> Thus, the fourth narrative group describes the end of Nephite political unity under the rule of judges and the almost total dissolution of their Messianic church.

These ten temporal-expressions and their associated narratives, in sequential order, may be described as follows.

*“in the twenty and ninth year” (3 Nephi 6:10)*

The first expression of the fourth narrative group occurs with the year-related narrative statement, “there began to be some disputings among the people”. The express singular or A year-term is the first of eight such year-terms in this narrative group. The stated ordinal or K number-term (the first of six such number-terms in this group) and the omitted name or H time-term (the first of nine such time-terms in the group) clearly identify a definite calendar year in the NC era context.<sup>57</sup> This is a formal, within-year, whole-year or A expression (the first of two such expressions in this narrative group). The number-term of this expression provides Mormon<sub>2</sub>’s related Sets with the cardinal number 29.

*“in the thirtieth year” (3 Nephi 6:14)*

The second temporal-expression identifies the other NC calendar year that is described in this narrative group. This is the first of nine expressions associated with the narratives of societal disintegration in the 30th NC year. This is the second of the two whole-year or A expressions in this narrative group. The following eight temporal-expressions, simply by the variety of the diction, seem to symbolize the jumble of events resulting in the political and religious breakup of the Nephites during the 29th and 30th NC years. The number-term of this expression supplies the cardinal number 30 to the potential Sets.

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<sup>55</sup> 3 Nephi 7:8.

<sup>56</sup> 3 Nephi 6:10-18; 7:8.

<sup>57</sup> 3 Nephi 2:8; 3:1; 4 Nephi 1:21.

*“but a few years” (3 Nephi 6:16)*

This unique temporal-expression uses an express plural or B year-term (the first of two in the fourth narrative group of Third Nephi), a common or M number-term (the first of three or perhaps four in this narrative group), and the only narrative-link in the *Book of Mormon* that uses the preposition *but*.<sup>58</sup> The number-term “a few” is unique in the plates of Mormon<sup>59</sup> and appears to refer to the three previous NC calendar years that are specifically identified with the term “peace”.<sup>60</sup> This is the second of three informal, referred-quantity, referred-years-relation or *O* expressions in Third Nephi. The M number-term provides Mormon<sub>2</sub>’s related Sets either with no quantity or with the cardinal number 3.

*“of the thirtieth year” (3 Nephi 6:17)*

The fourth temporal-expression in the fourth narrative group is a formal, within-year, commencement or *B* expression. The “railing” of elite Nephites and their “great persecutions”, which began in the 29th NC year, continued into “the commencement” of the 30th year. Because the people of Nephi “knew the will of God concerning them” and still occupied themselves in “all manner of iniquity”, they “did willfully rebel against God”.<sup>61</sup> The stated ordinal number-term of this expression supplies the potential Sets with the cardinal number 30.

*“of this the thirtieth year” (3 Nephi 6:17)*

The fifth temporal-expression of this narrative group also is unique in the *Book of Mormon*. Although it includes all the diction of another commencement or *B* expression, its number-term has an extraordinary supplement. A typical stated ordinal number-term, “the thirtieth”, is preceded and augmented by the determiner *this*. The use of two determiners in the number-term (the first, perhaps, a predeterminer) raises several possibilities as to how this expression may be interpreted and categorized.

Formal *B* expression. If the number-term did not include the determiner *this*, then the expression would be a formal *B* expression, exactly like the previous one in the same verse. Alternatively, if the number-term did not include the typical determiner *the*, then the expression also could be categorized as a formal *B* expression. It has all four elements of a formal *B* expression and the replacement of one determiner (*the*) with another determiner (*this*) appears to be immaterial to the categorization of a formal expression in other contexts.<sup>62</sup> However, both determiners (*this* and *the*) appear in the number-term. That duplication cannot be ignored.

If the word *this* were merely an emphatic predeterminer (i.e., not quantifiable), then the phrase *this the thirtieth* perhaps could be interpreted as a distinctive stated ordinal number-term that simply highlights a specific calendar year. A non-quantifiable number-term modification would be

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<sup>58</sup> See Division 1, Part 5, Tables 5.A and 5.B.

<sup>59</sup> See Division 1, Part 4, Section 4.6.3, Table 4.D.

<sup>60</sup> 3 Nephi 6:1, 3-4, 9 (the 26th, 27th, and 28th NC calendar years).

<sup>61</sup> 3 Nephi 6:10, 13, 16-18.

<sup>62</sup> See Division 3, Part 2, Sections 2.5.1-2.5.3; Part 4, Section 4.1.4.

numerically irrelevant, and the temporal-expression would seem to be a formal *B* expression almost identical to the previous one. As thus categorized, this unique stated ordinal number-term provides the potential Sets with the cardinal number 30.

Informal *Q* expression. If the addition of *this* as an emphatic (but again non-quantifiable) predeterminer were interpreted as a material change to the stated ordinal number-term, then the temporal-expression would appear to be an informal, stated-quantity, stated-time-relation or *Q* expression.<sup>63</sup> As thus categorized, the materially modified number-term also supplies the potential Sets with the cardinal number 30.

Two expressions conjoined by sequence and ellipsis. A third possibility may be that an ellipsis has occurred between two, immediately consecutive, temporal-expressions<sup>64</sup> for the purpose of creating a single emphatic expression: “of this [year, yea] the thirtieth year”. The seventh and eighth temporal-expressions of this narrative group present an almost identical composition.<sup>65</sup> The ellipsed words *year* and *yea* may be unnecessary to the importance and quantitative meaning of the single expression; however, such an ellipsis would have created a uniquely composite number-term.<sup>66</sup>

The proposed first ellipsed expression, “of this [year]”, has a typical, quantifiable, common or *M* number-term, the determiner *this*;<sup>67</sup> so, prior to the suggested ellipsis, this temporal-expression would have been an informal, referred-quantity, referred-year-relation or *M* expression similar to others in the plates of Mormon.<sup>68</sup> The proposed second ellipsed expression, “[yea] the thirtieth year”, has a stated ordinal number-term and an adverbial narrative-link; so, prior to the suggested ellipsis, this temporal-expression would have been an informal, mortal-time, explicit-yea or *L* expression. The proposed ellipsis creates material changes to both hypothetical expressions and results in a single expression with a unique composite number-term.

As Table 5.A suggests, this number-term might be considered both common (*M*) and stated ordinal (*K*), and the resulting single temporal-expression perhaps could be considered a hybrid referred-year-relation or *M* expression and stated-time-relation or *Q* expression (an *MQ* expression perhaps). As thus interpreted, the word *this* in the number-term may increase the numerical value from the stated 30 to an implied 60.

The fifth temporal-expression of the fourth narrative group of Third Nephi apparently may be interpreted as a formal *B* expression, an informal *Q* expression, or an informal, conjoined, hybrid *MQ* expression. The stated ordinal number-term of this expression, “the thirtieth”, clearly provides the potential Sets with the cardinal number 30; however, the preceding determiner *this* may supply such Sets

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<sup>63</sup> See Division 1, Part 4, Section 4.5.2.

<sup>64</sup> See Division 1, Part 4, Section 4.3.

<sup>65</sup> 3 Nephi 7:1.

<sup>66</sup> Compare Division 1, Part 6, Section 6.3.1 (ellipsis in a number-term involving two coordinated calendar years).

<sup>67</sup> See Division 1, Part 4, Table 4.D.

<sup>68</sup> See Division 1, Part 4, Section 4.6; Division 3, Part 1, Section 1.2.3.

either with no quantity or with a referenced cardinal number 30. In the alternative Sets depicted in Table 5.D, these possibilities appear as “□ or [30]+30”.

*“did govern ...that year” (3 Nephi 6:19)*

This unique temporal-expression uses an express singular or A year-term (the fifth in the fourth narrative group), a common or M number-term (the second of three certain M number-terms in this narrative group), and the only narrative-link in the *Book of Mormon* to use the verb *did govern*.<sup>69</sup> Because of the common number-term and verbal narrative-link, this is an informal, referred-quantity, referred-time-event or *P* expression (the only one used within the NC era context). The most pressing political issue of “that year” was *who* “did govern”. The determiner *that* clearly refers to the 30th NC calendar year, which is mentioned twice and perhaps referenced once in 3 Nephi 6:17. Thus, the common number-term of this expression provides the potential Sets either with no quantity or with the cardinal number 30.

*“in this same year” (3 Nephi 7:1)*

The seventh temporal-expression in the fourth narrative group is an informal, referred-time-relation or *M* expression. It appears in Mormon<sub>2</sub>'s narrative comment about the secret cabal of elite Nephites and their henchmen murdering “upon the judgment seat ... the chief judge of the land”, but still not being able to “establish a king over the land” because of the power of the tribal leaders. As noted in the discussion concerning 3 Nephi 6:17 above, this seventh expression also may suggest the possibility that the fifth temporal-expression of this narrative group was shortened by ellipsis: perhaps “of this [year, yea] the thirtieth year”. The common number-term, the phrase *this same*,<sup>70</sup> provides the proposed Sets either with no quantity or with the cardinal number 30.

*“yea, the thirtieth year” (3 Nephi 7:1)*

The eighth expression of this narrative group appears immediately after the seventh expression: “in this same year—yea, the thirtieth year”. This eighth expression is the only one in the plates of Mormon that uses the adverb *yea* as its narrative-link. The adverb introduces a year-related expression that “enforces the sense”<sup>71</sup> of the immediately preceding chronological statement by being more specific. Nephi<sub>1</sub> used this adverb as a narrative-link with two of his year-related expressions; so, Mormon<sub>2</sub>'s use in this context both honors his ancestor's use of the term and connects the initial eight years of Lehi<sub>1</sub> and his followers in the wilderness (when they had escaped from the Babylonian destruction of Judah brought on by the rebellion of king Zedekiah and his court) with the 30th NC calendar year (when iniquitous Nephite leaders “did destroy the government of the land”).<sup>72</sup> As noted above, this eighth expression also may suggest the possibility that the fifth temporal-expression of this narrative group was shortened

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<sup>69</sup> See Division 1, Part 5, Tables 5.A and 5.B.

<sup>70</sup> Alma 63:15; Helaman 3:24; 5:1; 3 Nephi 1:25; Mormon 1:11; compare “that same” in Alma 50:15, 37; Helaman 11:23, 29; 3 Nephi 7:16; Mormon 2:1; and “that selfsame” in Alma 24:4.

<sup>71</sup> Webster, *An American Dictionary of the English Language*, II: [948] (yea).

<sup>72</sup> 1 Nephi 10:3-4; 17:4; 3 Nephi 7:1-2.

by ellipsis: perhaps “of this [year, yea] the thirtieth year”. The stated ordinal number-term of this eighth expression also provides the potential Sets with the cardinal number 30.

*“six years had ... passed ... since the more part of the people had turned from their righteousness” (3 Nephi 7:8)*

The ninth temporal-expression of this fourth narrative group makes use of a frequent verbal narrative-link, *had ... passed*, but negates the verb with the “ordinary adverb of negation”,<sup>73</sup> i.e., *had not passed*. If six years had not passed, presumably five years, or perhaps only four, had passed.

Five complete years. Five years before a time in the 30th NC year was a time in the 25th NC year, when the victorious and seemingly united people of Nephi may have rejoiced that the process of converting or executing captured Gaddianton murderers was reaching its end.<sup>74</sup> Were there unstated disputes brewing among elite Nephites about granting freedom to, or executing, potential slaves? If so, the text appears to be silent about this possibility.

Four complete years. Four years before a time in the 30th year was a time in the 26th year, when the people of Nephi were engaged in returning to “their own lands”, with each man taking “his family, and his flocks and his herds, his horses and his cattle, and all things” that belonged to him back to his lands. This seemed to be a time of great order and peace.<sup>75</sup> Even so, was the focus on claiming lands and other property also a time when the seeds of political disintegration began to sprout? Mormon<sub>2</sub>’s unique time-term, personalized as to “the more part of the people”, perhaps suggests as much. Were those of “the more part of the people” thoughtlessly or intentionally ignoring the needs of minorities? Iniquity involving others may have been the way that most Nephites turned “from their righteousness”.

Alternative or stated quantification. One might suggest, of course, that this temporal-expression should be understood as providing an alternative, hypothetical value to Mormon<sub>2</sub>’s potential Sets. Both of such values (“five” or “four”) seem to be possibilities. However, neither hypothetical value appears to have been expressly specified or otherwise identified earlier in Mormon<sub>2</sub>’s text; so, both are dependent on the reader’s speculations. For this reason, these hypothetical values are not considered further in the analysis of 3 Nephi 7:8.

The personalized or G time-term consists of 12 words that create the only express time-term in this narrative group. Thus, the time-term also contrasts in length with the only stated cardinal or L number-term in this narrative group, a simple “six”, which clearly supplies the cardinal number 6 to the potential Sets. The contrast in length between number-term and time-term may imply that the 30th NC year was a time of political and religious contrasts for the Nephites: the choice of a chief judge by “the voice of the people”<sup>76</sup> vs. the murder of that chief judge and fateful

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<sup>73</sup> *The Compact Edition of the Oxford English Dictionary*, I: 1945 (not).

<sup>74</sup> 3 Nephi 4:27-5:7.

<sup>75</sup> 3 Nephi 6:1-9.

<sup>76</sup> 3 Nephi 6:19; see also Alma 4:16-17; 51:6-7; Helaman 1:5, 13; 2:2.

overthrow of the rule of judges;<sup>77</sup> and a unified church concerned with the fulfillment of king Mosiah<sub>2</sub>'s political prophecy<sup>78</sup> and Samuel<sub>2</sub> the Lamanite's Messianic prophecies<sup>79</sup> vs. a church "broken up in all the land save it were among a few of the Lamanites which were converted unto the true faith".<sup>80</sup>

*"ended the thirtieth year" (3 Nephi 7:13)*

The tenth and final temporal-expression in the fourth narrative group of Third Nephi concludes Mormon<sub>2</sub>'s report of "the affairs of the people of Nephi" in the 30th NC calendar year. This often repeated, formal expression format is unique in its placement; it is the final thus-ended or *E* expression in the *Book of Mormon*. New ways of governing, with no king and no centralized system of judges, were being adopted. Tribal leaders apparently created treaties to prohibit trespassing on each other's lands.<sup>81</sup> The phrase *the thirtieth*, which is stated five times and referenced two or perhaps three times in this narrative group, provides another cardinal number 30 to the potential Sets.

### 5.3.1 A narrative level of symbolism

The fourth proposed narrative group of Third Nephi, like the previous three narrative groups of this book and the initial narrative group of the Book of Mormon, all appear to present a distinct level of symbolism.<sup>82</sup> The narrative level of symbolism appears to be evidenced by the following textual facts.

Within the third year-term letter pattern in the plates of Mormon (ABABABAB)(ACB)(ABABABAB)(ACACBCB)(ABABABAB),<sup>83</sup> the A and B year-terms in this narrative group form part of the second (A) letter-set, all the second (B) letter-set, all the third (A) letter-set, all the third (B) letter-set, and part of the fourth (A) letter-set in the second (ABABABAB) letter-group.<sup>84</sup>

The omitted or H time-terms are disregarded in the letter patterns of the express time-terms, but they occur before and after the (G) letter-set in the (FDG) letter-group that begins the final express time-term letter-group in the plates of Mormon (FDG[D]GDF).<sup>85</sup>

In the eighth number-term letter pattern in the plates of Mormon (KLK)(MKM or MKMKM)(KMK),<sup>86</sup> the first two stated ordinal or K number-terms complete the (K) letter-set that ends the initial (KMK) letter-group; the following (M) and (K) letter-sets create the central (MKM or MKMKM) letter-group; and the following (K) and (L) letter-sets create the concluding (KMK) letter-group.<sup>87</sup>

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<sup>77</sup> 3 Nephi 6:19-7:1.

<sup>78</sup> Mosiah 29:27.

<sup>79</sup> Helaman 13:12-14:31.

<sup>80</sup> 3 Nephi 6:14.

<sup>81</sup> 3 Nephi 7:2-5, 11, 14.

<sup>82</sup> See Division 3, Part 3, Sections 3.3.1-3.3.3; Part 4, Section 4.1.5.

<sup>83</sup> 3 Nephi 1:4-4 Nephi 1:48; see also Division 3, Part 1, Section 1.11.1.

<sup>84</sup> 3 Nephi 6:10, 14, 16-17, 19; 7:1, 8, 13.

<sup>85</sup> 3 Nephi 2:8-Mormon 8:6; see also Division 3, Part 1, Section 1.11.1.

<sup>86</sup> 3 Nephi 4:15-7:14; see also Division 3, Part 1, Section 1.2.3.

<sup>87</sup> 3 Nephi 7:1, 8, 13.

Similarly, the formal within-year (*AB*) letter-group<sup>88</sup> helps to form the first (*A*) letter-set and forms the first (*B*) letter-set in the second (*ABABA*) letter-group of the final within-year letter pattern in the plates of Mormon (*ABABA*)(*C*) (*ABABA*).<sup>89</sup>

The formal year-end (*E*) letter-group<sup>90</sup> creates the second (*E*) letter-set of the unique (*DE*[*D*]*ED*) year-end letter-group in these plates.<sup>91</sup>

As to the structural categories of the informal temporal-expressions of the fourth narrative group of Third Nephi, the single mortal-time, explicit-yea or *L* expression forms the central [*L*] letter-set of the concluding letter-group (*JHJ*[*L*]*JHJ*).<sup>92</sup>

The concluding, proposed referred-quantity letter pattern (*MOM*[*P*]*MOM*) includes a first referred-years-relation or (*O*) letter-set in 3 Nephi 6:16, a possible second referred-year-relation or (*M*) letter-set in the unique potential *MQ* expression in 3 Nephi 6:17; a clear referred-time-event or (*P*) letter-set in 3 Nephi 6:19, and another (*M*) letter-set that is created in 3 Nephi 7:1.

For the stated-quantity expressions in the plates of Mormon, the four proposed letter-groups are (*QT*[*Q*]*TQ*)(*R*[*Q*]*R*)(*T*[*Q*]*T*)(*QT*[*Q*]*TQ*).<sup>93</sup> The stated-time-relation or *Q* aspect of the unique potential *MQ* temporal-expression in 3 Nephi 6:17 may provide a second *Q* expression to the central [*Q*] letter-set of the (*T*[*Q*]*T*) letter-group. The (*T*) letter-set of 3 Nephi 7:8 is the concluding (*T*) letter-set in the same letter-group.

Hence, in these eight instances, the structures of the fourth narrative group of Third Nephi appear to be organized at a narrative level that is separate from, but overlaps, parts of longer, often multi-book, placement patterns of year-, time-, and number-terms, and formal and informal expressions in the plates of Mormon.

#### 5.4 Set-context symbolism in the ten temporal-expressions

Seven number-terms in the fourth narrative group of Third Nephi include six stated ordinal or K number-terms and one stated cardinal or L number-term. These seven stated number names may be examined by themselves and by adding them into every possible combination for a total of 127 stated numbers and combination sums. Three common or M number-terms refer to prior stated or implied 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 imply definite numbers. The three number names referenced by the M number-terms may be considered to create 896 more combinations with each other and the seven stated number names. A fourth potential M number-term may be suggested by the additional determiner or predeterminer *this* in 3 Nephi 6:17, which could create 1024 more combinations. For each of the

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<sup>88</sup> 3 Nephi 6:10, 14, 17.

<sup>89</sup> Helaman 11:36 - Mormon 5:6; see also Division 3, Part 1, Section 1.11.2.

<sup>90</sup> 3 Nephi 7:13.

<sup>91</sup> 3 Nephi 1:26 - 4 Nephi 1:18; see also Division 3, Part 1, Section 1.11.2.

<sup>92</sup> Alma 50:24-Mormon 1:15; see also Division 3, Part 1, Section 1.10.

<sup>93</sup> See Division 3, Part 1, Sections 1.3.4, 1.4-1.8.

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.

Like the analysis in Section 5.2, the following analysis is based on the assumptions that the texts of the fourth narrative group of Third Nephi both limit and direct the combination process. The significant textual facts are the diction, language typology, and sequential placement of the temporal-expressions, as they may be further qualified by the secondary language of their associated narratives. All these textual facts are assumed to be consequential. They appear to limit the number-terms to the 175 potential Sets, 298 alternative Set-sums, and 47 unique Set-sum values analyzed below. These numbers represent the potential Sets, alternative Set-sums, and unique Set-sum values that appear to be created by the consecutive textual facts of these ten temporal-expressions. The remaining hundreds of other possible combinations and their combination sums seem to be incidental rather than limited and directed by the text of this fourth narrative group.

The analytical types and structural categories related to year-, time-, and number-terms, narrative-links, and temporal-expressions in the fourth narrative group of Third Nephi are listed in Table 5.A. Their associated letter-sets, letter-groups, potential Sets of number-terms, Set-contexts, and related accords with the interval lengths set forth in Table 3.A of Division 2 are listed in Table 5.D of this Division.

#### 5.4.1 Chronological accords related to year-term letter-sets

Two analytical types of year-terms appear in the ten temporal-expressions of the fourth narrative group of Third Nephi: express singular or A; and express plural or B. Their ABABA letter pattern consists of five letter-sets, which appear to be organized at a narrative level that is separate from, but overlaps, part of a much longer placement pattern of year-terms in the plates of Mormon.<sup>94</sup> The multi-book placement pattern involves 101 year-terms (organized as 34 year-term letter-sets) that begin with the fifth year-term in Third Nephi and continue to the first temporal-expression in the last verse of Fourth Nephi. However, as noted in Section 5.3.1 above, this lengthy placement pattern is consistent with, but quite different from, the pattern of year-terms in the fourth narrative group of Third Nephi and likely is not relevant to the narrative level of analysis examined here.

The five year-term letter-sets appear to create a five-part, balanced, and reversible (AB[A]BA) letter-group. The central [A] letter-set consists of five A year-terms, beginning with the “commencement” of the 30th NC year<sup>95</sup> and continuing through the two emphatic references to “this same year, yea the thirtieth year”.<sup>96</sup> As the Data section in Table 5.D indicates, there are many other ways to group these five letter-sets and to create potential Sets. Unlike the various seven-part balanced letter-groups of the third narrative group of Third Nephi, the ten temporal-expressions of the fourth narrative group of this book appear to be inadequate to create such letter-groups. They are, however, sufficient to create seven “expression” groupings of year- and number-terms, narrative-links, and informal temporal-expressions. Seemingly extra expressions also accompany these patterns, which may be illustrated as follows.

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<sup>94</sup> See Division 3, Part 1, Section 1.2.1.

<sup>95</sup> 3 Nephi 6:17.

<sup>96</sup> 3 Nephi 7:1.



Year-terms: (AA)(BAAAAAB)(A) or (2 and 7 and 1)  
 Stated number-terms: (KKKKKLLK) or (7) interwoven with (3 or 4) common number-terms  
 Narrative-links: (QQQQQRQ)(URR) or (7 and 3)  
 Informal expressions: (*OQPMLT*) or (6) with a 7th implied (*M*) possible between (*O*) and (*Q*)

Considering the seven-part pattern repetition in the third narrative group of Third Nephi, these potential groupings might also seem to have been planned around the number seven. However, since the seven Gaddianton war years had ended about four years earlier, these repetitious seven-expression patterns seem unlikely to symbolize those seven years. Perhaps these patterns are symbolic of an ancient, seven-part, tribal organization of Lehi<sub>1</sub>'s descendants and followers.<sup>97</sup> In the narratives associated with the ten temporal-expressions of the fourth narrative group, the separation of the Nephites into tribes is expressly noted.<sup>98</sup> Perhaps the seven original tribes of Lamanites, Lemuelites, Ishmaelites, Nephites, Jacobites, Josephites, and Zoramites were still recognizable.<sup>99</sup>

The 26 potential Sets associated with the five (A) and (B) letter-sets in this narrative group are listed together in the Data section of Table 5.D. These year-term Sets produce 48 alternative Set-sums, 31 unique Set-sum values, and 145 close, near, or relaxed near accords. For definite day counts (e.g., 7-day week), only close accords are included in the table. Ten square boxes appear in Table 5.D under the categories of year-term Set illustration and Set-sum. Each box represents the non-quantified alternative to the referenced quantification, which appears in brackets, e.g., “□ or [30]”. Seventeen of the year-term Set-sums are duplicated by the Set-sums of following year-term Sets; so, the following identical accords are noted by the parenthetical “(see above)”.

One hundred two (70.3%) of the 145 potential accords represent close accords. Seventeen more accords (11.7%) represent near accords and 26 (17.9%) represent relaxed near accords. Fifty-three (36.6%) of the 145 potential accords involve factors of single intervals; the other 92 accords (63.4%) involve one or more multiples of intervals or half intervals. Six (19.4%) of the 31 unique Set-sum values (155, 159, 185, 186, 212, and 269) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord.

#### 5.4.2 Chronological accords related to time-term letter-sets

Just two analytical types of time-terms appear in the ten temporal-expressions of the fourth narrative group of Third Nephi: personalized name or G; and omitted name or H (a type that appears to be disregarded in the time-term letter patterns of the plates of Mormon). The single (G) letter-set and two (H) letter-sets form a balanced and reversible (HGH) letter-group. The ten potential Sets related to this letter-group also are listed in the Data section of Table 5.D. The time-term Sets produce 18 alternative Set-sums, but only one unique Set-sum value. Thirty-nine potential close, near, or relaxed near accords are implied by the 18 Set-sums. Seventeen time-term Set-sums duplicate a previously listed year-term Set-sum; so, the associated accords are noted by the parenthetical “(see above)”.

<sup>97</sup> Jacob 1:13.

<sup>98</sup> 3 Nephi 7:2-4, 11, 14.

<sup>99</sup> Compare Alma 47:35; 4 Nephi 1:37-38; Mormon 1:8-9.

Eighteen (46.2%) of the 39 potential accords represent close accords. Ten more (25.6%) represent near accords and 11 (28.2%) represent relaxed near accords. Ten of the 39 accords (25.6%) involve factors of single intervals; the other 29 accords (74.4%) involve one or more multiples of intervals or half intervals. The single unique Set-sum value implies one close and one near accord.

#### 5.4.3 Chronological accords related to number-term letter-sets

The three proposed analytical types of express number-terms appear in the ten temporal-expressions of the fourth narrative group of Third Nephi: stated ordinal or K; stated cardinal or L; and common name or M. Seven (K), (L), and (M) letter-sets in these expressions appear to form two letter-groups; a five-part, balanced, and reversible (KM[K]MK) letter-group; and a simple (LK) letter-group. However, the potential M number-term perhaps suggested by the additional determiner or predeterminer *this* in 3 Nephi 6:17 may modify the structure by creating a longer, [M]-centered, seven-part, balanced, and reversible (KMK[M]KMK) letter-group followed by the simple (LK) letter-group. The 64 potential Sets related to these letter-sets are listed in the Data section of Table 5.D. These Sets produce 111 alternative Set-sums, 13 unique Set-sum values, and 393 potential close, near, or relaxed near accords. If a number-term Set-sum duplicates a previously listed year-, time-, or number-term Set-sum, the associated accords are noted by the parenthetical “(see above)”.

Close accords account for 294 (74.8%) of the 393 potential accords. Twenty-four more accords (6.1%) are near accords and 75 (19.1%) are relaxed near accords. One hundred twenty-three of the 393 potential accords (31.3%) involve factors of single intervals; the other 270 accords (68.7%) involve one or more multiples of intervals or half intervals. One (7.7%) of the 13 unique Set-sum values (33) perhaps may be considered incidental to the proposed symbolism because it does not imply any close, near, or relaxed near accord.

#### 5.4.4 Chronological accords related to narrative-link letter-sets

Three of the five analytical types of narrative-links appear in the ten temporal-expressions of the fourth narrative group of Third Nephi: prepositional or Q; verbal or R; and adverbial or U. The five (Q), (R), and (U) letter-sets in these expressions appear to form two simple (QRQ) and (UR) letter-groups. The 22 potential Sets related to these letter-groups also are listed in the Data section of Table 5.D. These Sets produce 39 alternative Set-sums and no unique Set-sum values, but 109 potential close, near, or relaxed near accords. If a narrative-link Set-sum duplicates a previous year-, time-, or number-term, or narrative-link Set-sum, the associated accords are noted by the parenthetical “(see above)”.

Seventy-five (68.8%) of the 109 potential accords represent close accords. Eight more (7.3%) represent near accords and 26 (23.9%) represent relaxed near accords. Twenty-five (22.9%) of the 109 potential accords involve factors of single intervals; the other 84 accords (77.1%) involve multiples of intervals or half intervals. All the Set-sums are duplicates of previously listed Set-sums; so, there are no unique Set-sum values.

#### 5.4.5 Chronological accords related to temporal-expression letter-sets

Three of the seven structural categories of formal expressions are represented in the ten temporal-expressions of the fourth narrative group of Third Nephi: whole-year or A;

commencement or *B*; and thus-ended or *E*. Five of the nine informal structural categories also occur in these temporal-expressions: explicit-yea or *L*; referred-year-relation or *M*; referred-years-relation or *O*; referred-time-event or *P*; and cardinal-years-event or *T*. If the word *this* in 3 Nephi 6:17, which seems to operate as an additional determiner or a predeterminer, were deemed to modify the otherwise formal commencement or *B* expression in a material way, then a sixth informal category (stated-time-relation or *Q* or perhaps a hybrid *MQ*) would seem to be present in these expressions. The potential letter patterns of the interwoven formal and informal temporal-expressions are variable sequence patterns: *AOBPMLTE*; *AOBQPMLE*; or *AOBMQP MLTE*. The ten potential Sets associated with the formal letter-sets in this fourth narrative group are separated in Table 5.D from the 43 potential Sets associated with the informal letter-sets. This separation permits direct comparisons with the formal and informal letter-sets in Part 3 of this Division, the formal letter-sets in Part 4 of this Division, and the formal and informal letter-sets discussed in Section 5.2 of this Part 5.

The formal expression letter pattern may be understood as a within-year letter-group (*AB*) followed by a year-end letter-set (*E*). The ten potential formal Sets suggest ten alternative Set-sums and no unique Set-sum values, but 42 potential close, near, or relaxed near accords. When a structural category Set-sum duplicates a previous year-, time-, or number-term, narrative-link, or structural category Set-sum in Table 5.D, the associated accord or accords are noted by the parenthetical “(see above)”.

Thirty-three (78.6%) of the 42 potential accords represent close accords. Four more (9.5%) represent near accords and five (11.9%) represent relaxed near accords. Fourteen (33.3%) of the 42 potential accords involve factors of single intervals; the other 28 accords (66.7%) involve multiples of intervals or half intervals. All ten formal Set-sums imply at least one close, near, or relaxed near accord.

The informal expressions may be viewed as three potential variable sequence letter patterns: *OPMLT*; *OQPMLT*; or *OMQPMLT*. The (*L*) letter-set represents the only mortal-time expression. The (*T*) letter-set and the potential (*Q*) letter-set represent the only stated-quantity expressions. The (*M*), (*O*), and (*P*) letter-sets represent all three referred-quantity structural categories and may suggest a sequential (*OPM*) or (*O*)(*MPM*) structure. The 43 potential informal Sets suggest 72 alternative Set-sums, two unique Set-sum values, and 272 potential close, near, or relaxed near accords. When a structural category Set-sum duplicates a previous year-, time-, or number-term, narrative-link, or structural category Set-sum in Table 5.D, the associated accord or accords are noted by the parenthetical “(see above)”.

One hundred ninety-five (71.7%) of the 272 potential accords represent close accords. Five (1.8%) represent near accords and 72 (26.5%) represent relaxed near accords. Ninety-four (34.6%) of the 272 potential accords involve factors of single intervals; the other 178 accords (65.4%) involve multiples of intervals or half intervals. The informal unique Set-sum values imply either a single close accord or a relaxed near accord.

#### 5.4.6 Aggregate data for all potential Sets

The 175 potential Sets in Table 5.D result in 268 alternative Set-sums that imply 1000 close, near, or relaxed near accords and 30 alternative Set-sums that do not imply any accord. These aggregate numbers include 228 duplicate Set-sums that imply 868 duplicate accords; they also include 23 duplicate Set-sums that do not imply any accord. When all duplicates are removed from the aggregate data, the 175 potential Sets result in 47 unique Set-sum values. Of this

number, seven do not imply any close, near, or relaxed near accord. The remaining 40 unique Set-sum values imply the 132 potential close, near, or relaxed near accords listed in Table 5.D.

Ninety-three (70.5%) of the 132 total accords represent close accords. Thirteen (9.8%) of the 132 accords represent near accords and 26 (19.7%) represent relaxed accords. Forty-eight (36.4%) of the 132 accords involve factors of single intervals. The remaining 84 accords (63.6%) involve one or more multiples of intervals or half intervals. Seven (14.9%) of the 47 unique Set-sum values (33, 155, 159, 185, 186, 212, and 269) perhaps may be considered incidental to the proposed symbolism because they do not imply any close, near, or relaxed near accord. Table 5.E of this Division lists all 132 of the proposed commensurations, together with their various interval lengths and the seven Set-sums that do not imply any accord.

#### 5.4.7 Lunar and planetary symbolism in the fourth narrative group of Third Nephi

Seventeen (35.4%) of the 48 factors of close accords listed in Table 5.D involve close accords with three sidereal periods and two synodic periods of the five planets visible to naked eye observation. In addition, one close accord, two near accords, and two relaxed near accords involve the sidereal period of Mercury. In addition, 12 (25.0%) of the 48 factors of close accords listed in Table 5.D involve close accords with draconic, sidereal, or synodic month intervals. Eighteen (40.0%) of the 45 close accords with intervals involve draconic, sidereal, or synodic month intervals. Eleven (84.6%) of the 13 near accords listed in Table 5.D involve draconic, sidereal, or synodic month intervals and 24 (92.3%) of the 26 relaxed near accords involve such intervals.

These 22 planetary accords and 65 lunar accords (65.9% of all 132 potential accords) again may imply that, during the NC era and in harmony with the astronomical and calendrical activities suggested in earlier Parts of this Division, Nephite priest-astronomers continued to pay close attention to planetary and lunar observation, measurement, and record keeping within the context of a precisely measured backdrop of stars along the ecliptic. The changeover to a solar based calendar for the NC era seems not to have ended their sky watching, quantitative assessments, and scribal activities. Indeed, these potential accords also may form an integral part of Mormon<sub>2</sub>'s witness to the accuracy of time keeping by Nephi<sub>3</sub> and his associated priest-astronomers throughout the first 30 years of the NC era.

This concludes the separate analysis of the fourth narrative group of Third Nephi. This narrative group is one of the five proposed narrative groups created by Mormon<sub>2</sub> for this book. As suggested above, this fourth narrative group may be combined with the third narrative group of Third Nephi to form a composite narrative group of 30 temporal-expressions. Similarly, the initial and second narrative groups of Third Nephi may be combined to form a composite narrative group of 29 temporal-expressions. Each of these composite narrative groups relates to an interval of 15 consecutive years in the NC era context. The combined period begins with the year of the Messiah's birth and concludes with the end of the 30th NC year. This Part 5 continues with an examination of the potential number pattern symbolism of these composite narrative groups.

### 5.5 Number pattern symbolism in the composite narrative groups of Third Nephi

The first composite narrative group of Third Nephi combines the 20 temporal-expressions of the initial narrative group and the nine temporal-expressions of the second narrative group of this

book. Tables 3.A and 4.A in Parts 3 and 4 of this Division list these 29 temporal-expressions and their proposed analytical types and structural categories. The narratives associated with the first composite narrative group report the events immediately preceding the sign of the Messiah’s birth and the following events of the first 15 years of the NC era.

The second composite narrative group of Third Nephi combines the 20 temporal-expressions of the third narrative group and the ten temporal-expressions of the fourth narrative group of this book. Table 5.A of this Part lists these 30 temporal-expressions and their proposed analytical types and structural categories. The narratives associated with the second composite narrative group report events in the second 15-year interval of the NC era.

During the 30th NC year, the people of Nephi destroyed their once welcomed “reign of the judges”. That system of governance had been created by king Mosiah<sup>2</sup>, whose beneficial reign and Judges era inauguration are expressly honored in 3 Nephi 2:5. Assuming the possibility that Judges calendar years continued to be used for judicial purposes after the inauguration of the NC era and depending on how far into the commencement of the 92nd Judges calendar year the signs of the Messiah’s birth were seen, the 30th NC year would have begun shortly before or after the commencement of a hypothetical 122nd Judges calendar year. In this hypothetical year, the Nephite Judges era, if not entirely supplanted by the inauguration of the NC era during the 101st Judges calendar year, appears likely to have been abandoned along with the rule of the judges.<sup>100</sup>

Whatever the case may have been, these proposals about the apparent end of judicial rule do not mean that the most basic calendar components of the Lehi and Judges eras were abandoned. Based on the proposed chronological symbolism of the small plates of Nephi, synodic, sidereal, and draconic months had been tracked for hundreds of years before the Judges era was inaugurated.<sup>101</sup> Based on the chronological symbolism of the plates of Mormon, as analyzed thus far, those lunar intervals apparently continued to be observed, measured, and recorded in some manner after the demise of the Judges era.<sup>102</sup> Similarly, the ancient Nephite 7-day week, with its holy seventh day, seems to have continued to be measured and observed by the few converted individuals and family groups among the Nephites and Lamanites who did not reject their ancient Messianic religion.<sup>103</sup> However, “the regulations of the government”—the social ordering and physical paraphernalia of the unified rule of judges, such as the judicial tools, places of judgment, and laws associated with the enforcement of judgments, the timing and activities related to the local choice of judges and the appointment of a “chief judge”, and the apparent evolution of some sort of cadre of (eventually perfidious) “chief judges”—all would appear to have been forsaken and superseded in the 30th NC year by the rule of apostate lineage leaders, many of whom likely were experienced warriors who had gained influence within their tribes during the previous Gaddianton conflict and later Nephite resettlement and rebuilding.<sup>104</sup>

### 5.5.1 Number pattern symbolism: the 29th and 30th NC years

The number patterns associated with the 29 and 30 temporal-expressions of the first and second composite narrative groups of Third Nephi may symbolize several significant intervals that either were, or seem likely to have been, observed and measured during at least part of the

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<sup>100</sup> Mosiah 29:41-44, 46; 3 Nephi 2:5-7; 7:1-2, 6, 11, 14.

<sup>101</sup> See Division 2, Parts 2 and 3.

<sup>102</sup> See Division 3, Part 2, Section 2.7.9; Part 3, Section 3.3.8; Part 4, Section 4.2.5; and this Part 5, Sections 5.2.7-5.2.8, 5.4.7.

<sup>103</sup> See Division 1, Part 1, Section 1.9.4.

<sup>104</sup> 3 Nephi 7:5-8.

30-year period related to their narratives. The first pair of these intervals occurred within the proposed, solar based, NC era context. The numbers 29 and 30 in this context appear to symbolize the 29th and 30th NC calendar years. Both years are expressly identified in the text.<sup>105</sup> During these two years, an apparently large group of elite Nephites (“chief judges ... high priests and lawyers”<sup>106</sup>) conspired to revolt against the Nephites’ ancient Messianic religion and their judicial system of government. Murderous conspirators captured and killed many of the Nephite prophets. The “church”, as an organization, was “broken up” except among “a few” of the converted Lamanites. The conspirators also sought to avoid prosecution by murdering the chief judge of the land and apparently refusing to carry out their religious and judicial duties. Instead, they proposed a new king (“whom they did call Jacob”) and a treacherous aristocracy to supplant the rule of the chief judge of the land and his subordinate judges, all of whom had been chosen by the voice of the people. In response, the tribal leaders used this opportunity to assert their control. The presumptive king and his followers threatened to use force to establish their aristocracy, but the tribes united to oppose the usurpers. Because of the military strength of the tribal alliance, the rebel king and his followers fled “into the northernmost part of the land”.<sup>107</sup>

### 5.5.2 Number pattern symbolism: the 29- and 30-day lunar counts

Two more significant intervals symbolized by the number patterns seem likely to have been observed and measured within the Judges era context. The numbers 29 and 30 in this context appear to represent typical alternating counts of consecutive synodic months within the proposed 12-synodic month Judges calendar year. In this regard, the 20+9 and 20+10 compositions of the numbers 29 and 30 also appear symbolic. These calendrical compositions appear to have been understood by the Nephites as early as the time of Nephi<sub>1</sub> and may have been acquired from local priest-astronomers in the vicinity where Nephi<sub>1</sub> and his followers eventually settled. These compositions appear similar to the way that ancient Maya Glyphs A and E (moon signs representing 20) were connected to the numerical coefficients 9 or 10 to signify:

- (a) the projected length of the current synodic month or the actual length of the previous synodic month (Glyph A plus 9 or 10); or
- (b) the 29th or 30th day of the current synodic month that had elapsed since the first visible crescent or, perhaps in some inscriptions, since the astronomical new moon (Glyph E plus 9 or 10).

This calendrical similarity to ancient Maya records does not necessarily mean that the people of Nephi settled among the Maya. The 20+9 and 20+10 compositions for measuring lunar months seem related to 20-based mathematics and the sacred 20-day count and, thus, these compositions may have been ancient throughout much of Mesoamerica by the time of Nephi<sub>1</sub>.<sup>108</sup>

Nephi<sub>1</sub> apparently commanded Jacob<sub>2</sub> and his descendants to complete the chronological structure of the small plates of Nephi so that it included only 29 temporal-expressions and concluded with the fulfillment of Lehi<sub>1</sub>’s 600-year prophecy.<sup>109</sup> These 29 expressions appear to symbolize both the lunar nature of the Lehi era and the preliminary and partial aspects of the Messiah’s mortal birth as prophesied by Lehi<sub>1</sub>. Twenty-nine days do not fully measure the length

<sup>105</sup> 3 Nephi 6:10, 14, 17; 7:1, 13.

<sup>106</sup> 3 Nephi 6:21.

<sup>107</sup> 3 Nephi 6:10-7:13; Jacob 1:13-14.

<sup>108</sup> See Division 2, Part 2, Sections 2.5.3, 2.5.8-2.5.9; and Figure 2.2; Part 3, Sections 3.2.19-3.2.20.

<sup>109</sup> See Division 2, Part 2, Sections 2.2.3, 2.3.2-2.3.3, 2.4, 2.4.3-2.4.4, 2.5.7.

of a synodic month and the small plates' 29 temporal-expressions appear to have been intended just to measure time from Lehi's and Nephi's visions through the hundreds of years that would follow in which his descendants and other believers would prepare for the birth of the Messiah.<sup>110</sup> That is, the small plates' 29 temporal-expressions apparently were not designed to include the crucial intervals extending from the Messiah's birth to his death, his resurrection, and his eventual visit to the New World believers as their risen Lord.

While the observing and counting of "moons" both appear to have been calendrical aspects of the Lehi era,<sup>111</sup> the people of Nephi eventually settled in a new homeland, priests were appointed "over the land", and crucial seasonal and agricultural timing likely became interwoven with their previous culture.<sup>112</sup> Presumably at a relatively early date in the New World, the recognition of the variable lengths of observable "moons" may have been augmented by a uniform system of mathematical "months".<sup>113</sup> The nightly labor of observation, measurement, and record keeping may have been assigned primarily to priest-astronomers, while the general populace continued to refer to observed "moons". The immediate agricultural success of the Nephites in their new homeland<sup>114</sup> and the composite temporal-expression numbers (20+9) and (20+10) in Third Nephi suggest the adoption of a local 20-based system for measuring "months" that seems likely to have been developed long before the arrival of Lehi and his followers in the New World. By the time that the Judges era was inaugurated, official Nephite use of counted "months" (each with numbered days)<sup>115</sup> may have been both familiar and reliable.

In the terminology of this source book, Set-contexts of 29 and 30 days represent close accords with a single mean synodic month (about 29.530588 days) and Set-contexts of 59 and 60 days represent close accords with two mean synodic months (about 59.061176 days).<sup>116</sup> Such mathematical counts, however, do not always record or predict the observed motion, location, and phase of the moon. Due to variations in the orbits of the earth and moon (apparently related to the sun's gravitational effect), the length of a single synodic month may be as short as about 29.26 days or as long as about 29.8 days. Because "the length of the synodic month varies and the time required for crescent visibility also varies, it is quite possible to ... [observe] two 30-day months or two 29-day months in a row ... [or] three 29-day months in a row ... [or] three, at times four, and very rarely five 30-day months in a row".<sup>117</sup> Thus, orbital and observational issues may result in the perceived lengths of any two consecutive synodic months varying from a strict 59-day count. This relatively frequent misalignment of 59-day counts and observations suggests another, more accurate, aspect of the number pattern symbolism in Third Nephi.

### 5.5.3 Number pattern symbolism: 36-month and 360-month adjustments

A significant interval that may have accompanied the use of 29-day and 30-day lunar counts is a period of three Lehi era or Judges era years (36 synodic months). A formal count of 59 days for every two synodic months gradually falls out of alignment with observable synodic months

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<sup>110</sup> E.g., 1 Nephi 1:4-15; 2:1-3; 10:1-14; 11:1-29.

<sup>111</sup> See Division 2, Parts 2 and 3.

<sup>112</sup> 2 Nephi 5.

<sup>113</sup> See Division 1, Part 1, Section 1.9.5; Division 2, Parts 2 and 3.

<sup>114</sup> 2 Nephi 5:11.

<sup>115</sup> E.g., Alma 10:6; 14:23; 16:1; 49:1; 52:1; 56:1, 42.

<sup>116</sup> See Division 3, Part 2, Table 2.M (59, 60); Part 4, Table 4.C (29, 30, 60); Part 5, Table 5.C (59, 60), Table 5.E (30, 59, 60).

<sup>117</sup> Parker, *The Calendars of Ancient Egypt*, 4, 6.

(two of which average about 59.061176 days). Over a period of 34 mean synodic months (about 1004.04 days), the standard mathematical count ( $17 \times 59 = 1003$ ) becomes misaligned with the astronomical mean by a full day. Of course, orbital variations, visibility difficulties, and record keeping issues could have concealed such misalignments for a much longer period of time than 34 synodic months measured with 1003 days. Nonetheless, once a day-by-day count of time and careful record keeping had been instituted by priest-astronomers, the various lunar and solar periods would have begun to be discernable, mathematical, and predictable. While a predicted one-day misalignment may not have been observed within each 36-month interval, over longer periods of observation, measurement, and record keeping, priest-astronomers seem to have determined that their lunar observations usually could be realigned with a standard 59-day count by the insertion of an extra day before the end of 36 synodic months. In a hypothetical standardized process, three consecutive 30-day months (the 34th, 35th, and 36th) could occur together to create an adjusted count of 1063 days [ $(18 \times 59) + 1 = 1063$ ] that generally aligned with 36 mean synodic months (about 1063.10117 days).

Still, the mean misalignment involved in each adjusted 36-month interval (about 0.10117 days) also resulted in the need for an additional one-day adjustment near the end of 360 months. Five consecutive, hypothetical, 30-day months (the 32nd, 33rd, 34th, 35th, and 36th) might have occurred together to create a fine-tuned count of 10631 days [ $(10 \times 1063) + 1 = 10631$ ] that usually aligned with 360 mean synodic months (about 10631.01168 days). Such standardized adjustments to the usual 59-day counts would have kept lunar months and years aligned generally for more than 85 360-month intervals or 30600 months ( $1/0.01168 = 85.61644$ ), the equivalent of about 2492 tropical years.

Thus, a standard 59-day count of two consecutive synodic months suggests the possibility that such a measurement tool could have been used to predict and then observe, record, and mathematically understand underlying one-day and two-day misalignments associated, respectively, with 36-month and 360-month lunar intervals. Moreover, the number pattern symbolism indicated by the  $20+9$  and  $20+10$  compositions of temporal-expressions in the first four narrative groups of Third Nephi suggests the possibility that this New World mathematical astronomy was available for adoption by Nephite priest-astronomers who were deeply concerned with the measurement of 600 Old World 12-synodic month “years” in the Lehi era context (the equivalent of 400 New World 18-synodic month “years” in a Mesoamerican context).

To take these possibilities beyond mere speculation, this study focused on additional textual evidence that appears to be relevant to the Nephite understanding of 36- and 360-synodic month counts and the related lunar astronomy. This evidence primarily consists of Set-contexts suggested by potential Sets in Third Nephi, but relevant Set-contexts also occur in the small plates of Nephi and the Book of Mormon. The focus now turns to three forms of Set-context symbolism that appear to be related to Nephite months counted as  $20+9 = 29$  and  $20+10 = 30$ .

#### 5.5.4 Set-context symbolism: 36-month adjustments

Set-contexts of 29 and 30 days have been presented in the previous examinations of Sets in First and Third Nephi.<sup>118</sup> Set-contexts of 59 and 60 days occur in the analysis of Sets in the Book of Mormon and Third Nephi.<sup>119</sup> Moreover, in the detailed analyses presented thus far in this

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<sup>118</sup> See Division 2, Part 3, Table 3.C; Division 3, Part 4, Table 4.C.

<sup>119</sup> See Division 3, Part 2, Table 2.M; Part 4, Table 4.C; Part 5, Tables 5.C and 5.E.



source book, dozens of close and near accords with the lengths of various intervals of mean synodic months also have been identified. All these Sets and their associated astronomical and calendrical accords suggest that detailed observation, measurement, and record keeping had been carried out by Nephite priest-astronomers for hundreds of years before the time of Mormon<sub>2</sub>. Beginning at 11 years of age, Mormon<sub>2</sub> apparently began his tenure in Zarahemla as the fifth generation official Nephite record keeper. At that time, his training in astronomy and calendar-keeping seem likely to have intensified. About a dozen years later, he apparently gained access to all the records that had been hidden and preserved by Ammaron, including the small plates of Nephi (which Mormon<sub>2</sub> apparently did not read until much later in his life).<sup>120</sup> Thus, one could expect that other Set-contexts would provide further corroboration of the proposed 36-month lunar calendar adjustment.

Table 5.F lists the Set-contexts created by Mormon<sub>2</sub> that have been presented in this source book thus far and that may be related to the use of 29- and 30-day lunar counts over a 36-month period. The Set-contexts appear to be divided into three principal groups. The first 63 close and near accords range from one-half of a synodic month (15 days) up to the two close accords for 12 synodic months (354 and 355 days). The next seven Set-contexts presumably should be viewed as part of the first principal group because their accords range from close accords for 12.5 synodic months, to 13, 14, and 15 close accords (with a couple of near accords included). These latter close and near accords certainly would verify the accuracy of the previous 12-synodic month year count. Thus, the first principal group appears to include the first 70 (83.3%) of the 84 Set-contexts listed in the table.

The 71st Set-context is a close accord with 19 synodic months (four months after the 70th Set-context in a sequential count) and the 72nd Set-context is another four and one-half months after 19 synodic months. However, beginning with the 72nd Set-context (23.5 synodic months), four more Set-contexts appear to be clustered shortly before and after 24 synodic months (an interval that includes a close accord with 24 months and ranges from 23.5 to 26.5 synodic months). The second principal group of Set-contexts in the table apparently consists of this cluster of four Set-contexts around the end of two 12-synodic month years.

The 76th Set-context is a close accord with 29 synodic months (2.5 months after the 75th Set-context) and the 77th Set-context is another 6.5 months after 29 synodic months. Still, beginning with the 77th Set-context (35.5 synodic months), eight more Set-contexts appear to be clustered shortly before and after 36 synodic months (an interval that includes a close accord with 36 months and ranges from 35.5 to 39 synodic months). These final eight close and near accords certainly would verify the accuracy of the previous 36-synodic month year count. In Tables 2.M and 3.C of this Division, in which Set-contexts larger than 1153 days appear, the next closest Set-contexts are 1194 days or 40.5 synodic months (Table 3.C), 1209 and 1211 days or 41 synodic months (Table 2.M), and then 1254 days or 42.5 synodic months (Table 2.M). Thus, the third principal group appears to include the cluster consisting of the last eight (9.5%) of the 84 Set-contexts listed in Table 5.F.

The data in Table 5.F may suggest two possibilities for a 36-month calendar adjustment. The 73rd Set-context represents the larger close accord for 24 synodic months:  $(12 \times 59) + 1 = 709$  days. That is, at the end of the second 12-month year in each three-year period, the final two months may have been understood to include 60 days (30 each) rather than 59 days. However,

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<sup>120</sup> Mormon 1:6; 2:17-18; Words of Mormon 1:3-8; see also Division 3, Part 3, Sections 3.8.1 and 3.9.

because the mean synodic month count is just 708.7341 days, a standardized one-day addition at the end of 12 59-day counts would sometimes be too much and the mean difference would then be worked out over the following 12-synodic month year. Alternatively, the 78th Set-context represents the smaller near accord for 36 synodic months:  $18 \times 59 = 1062$  days. The 79th Set-context represents the smaller close accord for 36 months—a close accord that is about 2.43 hours shorter than the mean period of about 1063.1012 days. Hence, over a period of about ten three-year periods, an additional one-day adjustment would need to be made to keep the calendar count aligned with the mean synodic period:  $(10 \times 1063) + 1 = 10631$  days to match the mean length of 30 12-synodic month years (about 10631.01168 days).

Nothing as complete as the series of close and near accords in Table 5.F has appeared elsewhere in the Set-contexts analyzed thus far. Nevertheless, in Third Nephi, the book recording the time in which the official use of both Nephite 12-synodic month calendars apparently ended, Mormon<sub>2</sub>'s Set-contexts appear to emphasize the accuracy of the Nephite lunar calendars—whether maintained solely by the observation of “moons” or by means of alternating 29- and 30-day “months”. By implication, he again honors his ancestors and attests to their careful and truthful measurement of Lehi<sub>1</sub>'s 600-year prophecy.

#### 5.5.5 Set-context symbolism: 360-month adjustments

Various connections between the structures and symbolism of Third Nephi and Mormon<sub>2</sub>'s concluding number-term letter pattern have been proposed earlier in this source book.<sup>121</sup> Particularly interesting, although hardly examined before this point in the analysis, is the remarkable Set-context of 10395 days identified in connection with Mormon<sub>2</sub>'s concluding year-term letter pattern.<sup>122</sup> The Set-sum 10395 results when all the quantified and quantifiable number-terms in that pattern are added together. This Set-sum is the largest unique Set-sum value clearly expressed in that textual pattern. If the hypothetical alternative values of the three M number-terms near the beginning of Mormon<sub>2</sub>'s personal book<sup>123</sup> are considered to have been intended by him (but left up to his readers to discover), then the Set-sum 10395 is the second largest unique Set-sum value implied in his concluding textual pattern (the largest being 10398).

A Set-context of 10395 days is five days less than 40 260-day calendar years or 10400 days. There is no question that such an interval was counted repeatedly and without any intercalation in the thousands of years that the ritual almanac has been counted in Mesoamerica. As noted in Part 2 of this Division, a Set-context of 10395 days implies five close accords: 1485 7-day weeks; 1155 9-day cycles; 382 mean draconic months (about 10395.0680 days); 380.5 mean sidereal months (about 10395.8916 days); and 352 mean synodic months (about 10394.7670 days). Regarding the proposed Nephite 30-year calendar adjustments, the Set-context of 10395 days carries the synodic month count through the first four months of the 30th 12-synodic month year. Just eight synodic months later (a 236-day Set-context identified in Tables 5.C and 5.F), the 30th Nephite 12-synodic month year ended its accurate observation and measurement cycle ( $10395 + 236 = 10631$  days). This precise count is just 16.8 minutes shorter than the mean synodic period of about 10631.01168 days.

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<sup>121</sup> See Division 3, Part 2, Sections 2.4.6, 2.5.2, 2.7.9; Part 3, Sections 3.1.8, 3.3.2, 3.3.4, 3.5.2, 3.6, 3.8; Part 4, Section 4.1; and Sections 5.1.1, 5.3.1, 5.5.3-5.5.4 in this Part 5.

<sup>122</sup> See Division 3, Part 2, Sections 2.7.3, 2.7.9, Tables 2.H and 2.M.

<sup>123</sup> Mormon 1:8, 11; 2:1.

All these Set-sums, Set-contexts, and related astronomical and calendrical accords do not appear to be coincidental. By the time Nephi<sub>1</sub> began composing his abridged record on the small plates, the 20+9 and 20+10 compositions apparently were understood and implied by him.<sup>124</sup> Is it merely by chance that his revelation to create a prophetic religious record on a set of small plates is mentioned when “thirty years had passed away from the time we left Jerusalem”?<sup>125</sup> Had his younger brothers, the priests Jacob and Joseph, calculated synodic months back to identify the day that Lehi<sub>1</sub> left Jerusalem? Is it an accident that Nephi<sub>1</sub>’s next temporal-expression occurs a few verses later, when “forty years had passed”,<sup>126</sup> or that he appointed a king to lead the Nephite people (recorded apparently at his command in the first verse of the Book of Jacob) another 15 lunar years after that? Were the first 15 lunar years measured by the followers of Lehi<sub>1</sub> based primarily on simple observations of the moon’s phases? Where and why would they have changed such a basic practice? In the ancient world, who else measured intervals of 15 and 30 12-synodic month years—or the equivalent 10 and 20 18-synodic month years—using 6-synodic month semesters? Is it merely coincidental that intervals of 35 synodic months and 38 draconic months are suggested by Set-sums in the combined writers’ Sets in the small plates of Nephi?<sup>127</sup> Had the accuracy of the proposed adjustment system (or misalignment recognition system) been proven to Nephite priest-astronomers when “fifty and five years had passed away”?<sup>128</sup> Was a precise lunar calendar for measuring 20 30-year increments of the 600-year Lehi era context part of Nephi<sub>1</sub>’s legacy for later Nephite leaders? In Third Nephi, is Mormon<sub>2</sub> again honoring the observations, record keeping, and detailed analysis carried out for hundreds of years by Nephite priest-astronomers and their New World predecessors?

These questions logically arise from the ink designs in the extant manuscript text of the *Book of Mormon*. Further analysis of the structure and symbolism of the fifth narrative group of Third Nephi may suggest answers to some of these questions. However, before proceeding with the analysis of the fifth narrative group in Part 6 of this Division, a third form of Set-context symbolism related to the Nephite 20+9 and 20+10 lunar calendar number pattern must be noted.

#### 5.5.6 Set-context symbolism: “personalized” lunar counts

The initial and third narrative groups of Third Nephi each consists of 20 clearly sorted temporal-expressions. The second and fourth narrative groups of this book include, respectively, nine and ten temporal-expressions. Larger composite narrative groups were implied: 20+9 = 29 expressions and 20+10 = 30 expressions. The numbers 29 and 30 suggested lunar calendar measurements. These compositions may have been understood by the Nephite calendar keepers as early as the time of Nephi<sub>1</sub> and may have been acquired from local priest-astronomers in the area where Nephi<sub>1</sub> and his followers eventually settled and became immediately successful farmers.<sup>129</sup> In Section 5.5.2 above, these compositions were described as similar to the way the ancient Maya Glyphs A and E (moon signs representing 20) could be connected to the numerical coefficients 9 or 10 to signify the projected length of the current synodic month or the actual length of the previous synodic month (Glyph A plus 9 or 10) or the 29th or 30th day of the

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<sup>124</sup> See Division 2, Part 2, Section 2.5.9.

<sup>125</sup> 2 Nephi 5:28.

<sup>126</sup> 2 Nephi 5:34.

<sup>127</sup> See Division 2, Part 3, Section 3.16.4.

<sup>128</sup> Jacob 1:1.

<sup>129</sup> See Division 2, Part 2, Section 2.5.9; see also 2 Nephi 5:7-11; Jacob 1:13-14.

current synodic month (Glyph E plus 9 or 10).<sup>130</sup> As noted, this calendrical similarity to ancient Maya records does not necessarily mean that the people of Nephi settled among the Maya. The 20+9 and 20+10 compositions for measuring lunar months seem related to 20-based mathematics and the sacred 20-day count and, thus, these compositions may have been ancient throughout much of Mesoamerica by the time of Nephi.<sup>131</sup>

The composite numerical value of Glyph E was not limited to 29 or 30. Other days in the latter third of a lunar month could be written, for example, as Glyph E with a 3 (the 23rd day) or Glyph E with a 5 (the 25th day). Hence, the numerical coefficient that accompanied this moon glyph may be viewed as specifying a certain day. This specification function of the numerical coefficients suggests the possibility that the nine and ten temporal-expressions of the second and fourth narrative groups of Third Nephi also may have a specification function, i.e., may “personalize” the initial and third narrative groups of this book. Indeed, the Set-context symbolism of these two narrative groups fits exactly with the implied 6 Owl? symbolism that appears to be so crucial at the beginning of the NC era in the initial narrative group.<sup>132</sup>

The arithmetic process used to integrate birth date and inauguration date information is suggested by the way Enos<sub>2</sub> appears to have personalized his record and that of his descendants. The apparent use of a similar process by Mormon<sub>2</sub> implies that the procedure was understood and used by him to personalize the Book of Mormon with dates from his own life, to identify the Messiah’s birth date and the inauguration date related to the NC era, and to honor the record keeping legacy of Jacob<sub>2</sub> and his descendants who wrote in the small plates of Nephi.<sup>133</sup> The process concerns day name calculations in the 260-day ritual almanac, the most personal of the Mesoamerican calendars. The arithmetic process is basic to the way the ritual almanac appears to have been understood.<sup>134</sup>

In this instance of proposed personalization, the examination focuses on the nine and ten temporal-expressions of the second and fourth narrative groups of Third Nephi. The largest Set-sum, the total of all letter-sets in the second narrative group, is 118.<sup>135</sup> There is no alternative Set-sum. The largest alternative Set-sums in the fourth narrative group are 185, 248, and 278. The alternatives are derived from the use of three or four informal temporal-expressions in the fourth narrative group.<sup>136</sup> Three informal expressions are straight forward: “but a few years”; “did govern ... that year”; and “in this same year”.<sup>137</sup> The seemingly ambiguous formal or informal expression uses a unique number-term (“this the thirtieth”) in 3 Nephi 6:17.<sup>138</sup> The unique Set-sum values of the combined specifying narrative groups are calculated as: 118+185 = 303; 118+248 = 366; and 118+278 = 396. One must note that the sum 396 is only possible when the unique number-term “this the thirtieth” in 3 Nephi 6:17 is deemed to provide the alternative, implied, cardinal number 60 to Mormon<sub>2</sub>’s associated Sets.

As with the other instances of personalization, the following day name calculations bring together two groups of cardinal numbers: those representing the three unique Set-sum values

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<sup>130</sup> See Division 2, Part 2, Sections 2.5.3, 2.5.8, and 2.5.9, and Figure 2.2.

<sup>131</sup> See Division 2, Part 3, Section 3.9.

<sup>132</sup> See Division 3, Part 3, Sections 3.6-3.8.

<sup>133</sup> See Division 2, Part 3, Section 3.12.

<sup>134</sup> Thompson, *Maya Hieroglyphic Writing: Introduction*, 66-67.

<sup>135</sup> See Division 3, Part 4, Table 4.B.

<sup>136</sup> See Division 3, Part 5, Table 5.D.

<sup>137</sup> 3 Nephi 6:16, 19; 7:1.

<sup>138</sup> See Division 1, Part 4, Section 4.5.2; Part 6, Section 6.6.3; Division 3, Sections 5.3, 5.4.3, and 5.4.5 in this Part 5.

identified above and those representing the days of the 260-day ritual almanac depicted in Figure 3.1 in Part 3 of Division 2. The day 1 Sun is the first day name in that Figure 3.1. The Olmec day Sun or its counterpart (such as Alligator, Day, or Root) in the 260-day calendars of other geographic and/or cultural groups “was everywhere the first day” of the ritual almanac.<sup>139</sup> Early in the development of the 365-day Mesoamerican calendar, the day named 1 Lord (at the other end of the first column in Figure 3.1) was the “name day” (the senior year bearer or last day) of the immensely important, terminally named, Cuicuilco calendar in which the summer solstice fell on day 6 Sun in 739 BCE. The successive annual year bearers of that calendar every four years were Type V: Lord, Serpent, Foot, and Eagle. About 220 years later, the Izapa calendar appears to have confirmed the summer solstice astronomy and calendrical mathematics of the 520-year solar era suggested by the Cuicuilco calendar. However, the four annual year bearers of the Izapa calendar were Type I: Sun, Death, Monkey, and Owl?. This change suggests that after about 519 BCE, senior year bearers named 1 Sun would have been understood and that, by the time of Mormon<sub>2</sub> some 800 years later, the Olmec day Sun or its counterpart may have resulted in the ritual almanac often being depicted in an order like that shown in Figure 3.1 of Division 2.

The day name calculations assume that each of the three unique Set-sum values for the specifying temporal-expressions of the second and fourth narrative groups may symbolize a specific day name in the ritual almanac. The following calculations present the more complex arithmetic involved in determining specific day names in Figure 3.1 of Division 2 that may be symbolized by the three unique Set-sum values.

<u>Set-sum</u>	<u>Simplifying calculation</u>	<u>Remainder as a ritual almanac day</u>
303	$303 - (1 \times 260) = 43$	43 symbolizes day 4.c or Night?
366	$366 - (1 \times 260) = 106$	106 symbolizes day 2.f or Death
396	$396 - (1 \times 260) = 136$	136 symbolizes day 6.p or Owl?

At this point in the analysis, only the last of these day names (6 Owl?) clearly appears to have chronological significance in a Nephite context. As analyzed in Part 3 of this Division, the spring equinox birth date of the Messiah and, more than nine years later, the summer solstice inauguration date of the NC era both appear to have occurred on days named 6 Owl? in the 260-day calendar. Still, one may question whether these two 6 Owl? dates are the only ones implied by the personalized Set-sum 396. They are consistent with the proposed chronology in Part 3 of this Division, but is any other 6 Owl? day implied?

For example, just 85 days before the New Year of the 34th NC year, a total lunar eclipse appears to have been visible in Mesoamerica. The date was 6 Owl? in the ritual almanac, 18 December 28 CE (1731639). In the Cuicuilco and Olmec terminally named calendars, this was New Year day (0 C). In the NC calendar, this was the seating day (0 C) of the 15th 20-day month. Was this 6 Owl? eclipse important to the events of the 33rd NC year? Do the Set-sums 303 and 366 merely serve as mathematical antecedents of 396 or do the Set-sums interpreted as 4 Night? and 2 Death have other narrative connections? To address these issues, the information provided by the fifth narrative group of Third Nephi, which covers the 31st through the 34th NC calendar years, must be considered. Thus, this examination proceeds into Part 6 of this Division.

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<sup>139</sup> Edmonson, *The Book of the Year: Middle American Calendrical Systems*, 4-5, 169-77, 208-14, 220-31, 241-43, 246-50.