

BOOK OF MORMON CENTRAL <a href="http://bookofmormoncentral.org/">http://bookofmormoncentral.org/</a>



BYU Studies http://byustudies.byu.edu/

Dating the Death of Jesus Christ Author(s): Jeffrey R. Chadwick Source: *BYU Studies Quarterly*, Vol. 54, No. 4 (2016), pp. 135–191. Published by: BYU Studies

**Abstract:** In December 2010, BYU Studies published a study by Jeffrey R. Chadwick entitled "Dating the Birth of Jesus Christ." It presented historical and scriptural evidence showing that Jesus was not born in April of 1 BC, as popular Latter-day Saint thought supposed, but most likely in December of 5 BC. A significant component in "Dating the Birth of Jesus Christ" was the proposition that Jesus died at Passover in the early spring of AD 30. While this dating is widely accepted, a minority of scholars disagree. A great deal of historical and scriptural evidence suggests otherwise, however, and this study demonstrates, with some degree of certainty, that Jesus did in fact die in AD 30, on the eve of Passover, the 14th day of the Jewish month Nisan, which in that year fell on April 6 in the old Julian calendar. This study also presents evidence that the day on which Jesus died was not a Friday, but the fifth day of the Jewish week, the day we call Thursday. This paper introduces a great deal of data to support the author's conclusions, including modern scholarly assessments, original primary historical references, citations from the New Testament and the Mishnah, astronomical information, and tables that display the timing of events.



BYU Studies is collaborating with Book of Mormon Central to preserve and extend access to BYU Studies and to scholarly research on The Book of Mormon. Archived by permission of BYU Studies. http://byustudies.byu.edu/

# Dating the Death of Jesus Christ

Jeffrey R. Chadwick

In December 2010, *BYU Studies* published a study I prepared entitled "Dating the Birth of Jesus Christ." It presented historical and scriptural evidence showing that Jesus was not born in April of 1 BC, as popular Latter-day Saint thought supposed, but most likely in December of 5 BC.<sup>1</sup> The article attracted considerable attention; was covered in both print and broadcast news stories as well as by radio shows, blogs, and other forums of discussion;<sup>2</sup> and received positive response in many venues.<sup>3</sup>

<sup>1.</sup> Jeffrey R. Chadwick, "Dating the Birth of Jesus Christ," *BYU Studies* 49, no. 4 (2010): 5–38.

<sup>2.</sup> See, for example, Michael De Groote, "What Was the Real Date of Jesus' Birth?" *Deseret News*, December 24, 2010, available at http://www.deseretnews. com/article/700094707/What-was-the-real-date-of-Jesus-birth.html; "Dating the Birth of Jesus Christ," interview on BYU Radio program *Thinking Aloud*, host Marcus Smith, originally aired April 18, 2012, available at http://www.clas sical89.org/thinkingaloud/archive/episode/?id=4/18/2012; and "Dating the Birth of Jesus Christ," *Meridian Magazine*, November 12, 2010, no longer available online.

<sup>3.</sup> Differing views were presented in response to my 2010 article as Lincoln H. Blumell and Thomas A. Wayment, "When Was Jesus Born? A Response to a Recent Proposal," *BYU Studies Quarterly* 51, no. 3 (2012): 53–81. Notwithstanding the claims made there, which I have carefully considered, I stand behind every aspect and conclusion presented in "Dating the Birth of Jesus Christ." This article about dating the death of Jesus Christ presents additional support for calendric considerations about the birth, life, and ministry of Jesus in general.

A significant component in "Dating the Birth of Jesus Christ" was the proposition that Jesus died at Passover in the early spring of AD 30. While this dating is widely accepted, a minority of scholars disagree. Recently, two colleagues raised concerns about an AD 30 crucifixion date, suggesting that "we cannot know with any degree of certainty in which year Jesus died."<sup>4</sup> A great deal of historical and scriptural evidence suggests otherwise, however, and in the pages to follow this study will demonstrate, with some degree of certainty, that Jesus did in fact die in AD 30, on the eve of Passover, the 14th day of the Jewish month Nisan, which in that year fell on April 6 in the old Julian calendar. In what may come as a surprise to many Latter-day Saints and other Christians generally, this study will also present evidence that the day on which Jesus died was *not* a Friday, but the fifth day of the Jewish week, the day we call Thursday.

As was the case with "Dating the Birth of Jesus Christ," it will be necessary in this study to introduce a great deal of data,<sup>5</sup> including modern scholarly assessments, original primary historical references, citations from the New Testament and the Mishnah, astronomical information, and tables that display the timing of events. At times, some of these issues may seem disconnected from each other. But the reader may be assured that all of this quite complicated evidence will come together by the end of this article to support the conclusions presented.

# The Crucifixion at Passover

The execution of Jesus is described in all four New Testament Gospels as having occurred at the beginning of the Passover festival (see Matt. 26–27; Mark 14–15; Luke 22–23; John 12–19). Passover was a major festival, mandated by the Law of Moses in the Hebrew Bible (see Ex. 12:2, 6, 18; 13:4) to occur in the middle of the first month of the spring season of the year (the season and month called "Aviv" in Hebrew). This means that Passover would occur in the four-and-one-half-week window of

<sup>4.</sup> Blumell and Wayment, "When Was Jesus Born?" 69.

<sup>5.</sup> In fact, much more data must be explored in this study than in my 2010 article. This is due to the fact that, as noted by Blumell and Wayment, fixing the date of Jesus's death is an extremely complicated task, one that admittedly was approached in only a summary manner in my "Dating the Birth" study. Accordingly, this article strives to address numerous issues raised by Blumell and Wayment that deserve to be treated as comprehensively and as definitively as possible.

time directly after the vernal equinox, which is to say after March 21. Scholars of the Jewish calendar note ancient sources which affirm that Jews in the first century, by rule, celebrated their Passover festivals soon after the vernal equinox.<sup>6</sup> Exodus also mandates that the lambs of the Passover should be slain and roasted on the 14th day of the first spring month and that when evening came, the roasted lambs should be eaten in the ritual meal with unleavened bread and bitter herbs (Ex.12:5–10). Since the ancient Israelite day began at sunset, the actual date of the feast and beginning of the festival was the fifteenth day of the month. While this month was simply called Aviv (KJV "Abib") in the time of the Israelite monarchies, following the Babylonian captivity (sixth century BC), the ancient Jews adopted the Babylonian name for the spring month, which was Nisan.

By the time of Jesus (first century AD), the spring month of Nisan was known to Jews not only as the first month of their year, as it had been counted in books of the Hebrew Bible (Old Testament), but also as the seventh month of the year, as it was counted in the prevailing Syrian calendar. Nisan was, in fact, the seventh month after the early autumn Jewish new year, known as Rosh Hashanah.<sup>7</sup> And ancient Jewish sources refer to Nisan as both the first month and the seventh month. The Jewish historian Philo of Alexandria, for example, who wrote around AD 40, very close to the lifetime of Jesus, began his discussion of Passover by declaring that it occurred in the seventh month, explaining afterward why it was also considered by Jews to be the first month.<sup>8</sup> Whether

<sup>6.</sup> See Sacha Stern, *Calendar and Community: A History of the Jewish Calendar, 2nd Century BCE to 10th Century CE* (New York: Oxford University Press, 2001), 71.

<sup>7.</sup> See Jeffrey R. Chadwick, *Stone Manger: The Untold Story of the First Christmas* (Amazon: Kindle Direct Publishing, 2011), ch. 3 and fig. 4.

<sup>8.</sup> See Philo, Special Laws II:XXVIII, in *The Works of Philo*, trans. C. D. Yonge (Peabody Mass.: Hendrickson, 1993), 582. Philo refers to Passover and the festival of unleavened bread in the seventh month and then goes to great effort to explain why this should be considered the first month. For a diaspora Jewish writer such as Philo to designate Nisan as the seventh month lends significant support to my position in "Dating the Birth of Jesus Christ," 21–22, that Luke, in mentioning the "sixth month," could be referring to Adar, the month preceding Nisan. This was challenged by Blumell and Wayment in "When Was Jesus Born?" 71, and also by S. Kent Brown, "What Do We Know about 'the Sixth Month' in the Infancy Story?" posted December 25, 2013, *Brigham Young University New Testament Commentary*, http://www.byunewtestamentcommentary.com/what-do-we-know-about-the-sixth-month-in-the-infancy-story/. In their

counted as in the first or seventh month, however, the Passover was to occur at the time of the full moon after the vernal equinox.

The day of the Passover festival was also known as a Yom Tov, a Hebrew term that literally means "good day," indicating a high holy festival day of most special importance. Only the biblical mandated festival days that were also regarded as Sabbaths (regardless of the day of the week on which they fell) were designated as Yom Tov. These were Passover (first and seventh days), Shavu'ot (the "feast of weeks"), Rosh Hashanah, Sukkot (the "feast of tabernacles"), and Shemini Atzeret.9 Leviticus designates these festival days as Sabbaths, both specifically and by implication.<sup>10</sup> All acts of work forbidden on the weekly Saturday Sabbath were forbidden on a Yom Tov festival day, with the exception of some issues of food preparation. The obligation on a Yom Tov was to rejoice together with the family and the nation, and no event of sadness was to occur, be undertaken, or be participated in on a Yom Tov. These festival terms and procedures were in common practice in the first century AD and were recorded in the second century in the tractate of the Mishnah that was known by the title Yom Tov, later to be known as Betzah.<sup>11</sup> Of course, there were Jewish festival holidays that were not also Sabbaths, Purim and Hanukkah being just two examples. The Hebrew term hag, meaning festival or holiday, could describe either a Yom Tov hag or a hag with no Sabbath-like restrictions. So the specific nature and restrictions of

comments, however, neither Blumell and Wayment nor Brown refer to Philo's writings in general or to the reference to Passover in the seventh month in particular. It seems significant, however, that autumn appears to be the beginning of the year not only for Philo, but for the diaspora Jewish writer Luke, as demonstrated by Bruce in this study (see also nn. 51 and 52 below). For the view that Luke was a Jew, see William Foxwell Albright, *The Archaeology of Palestine* (Harmondsworth, Middlesex: Penguin, 1960), 199.

<sup>9.</sup> See Adin Steinsaltz, *The Talmud*, *The Steinsaltz Edition: A Reference Guide*, trans. and ed. Rabbi Israel V. Berman (New York: Random House, 1989), s.v. יום טוב (*yom tov*), p. 200.

<sup>10.</sup> Leviticus 23 specifically designates Rosh Hashanah (see v. 24), the first day of Sukkot (see v. 39), and the eighth day called Shemini Atzeret (see v. 39) as Sabbaths, regardless of their position in the week. The first and last days of the Passover week (see vv. 7-8) and the day of Shavu'ot (see v. 21) are also understood as biblically mandated Sabbaths, since the passages describing them feature the same admonition against work as Rosh Hashanah and Sukkot: "Ye shall do no servile work therein."

<sup>11.</sup> See Steinsaltz, *Talmud*, s.v. ביצה (*betzah*), p. 40.

Passover as a *Yom Tov* festival Sabbath are crucial to understanding the narratives of the crucifixion and will be referred to later as we proceed.

### The Crucifixion in AD 30: Scholarly Consensus

A broad majority of scholars maintain that AD 30 was the year in which Jesus was crucified at the season of Passover. It is not an exclusive consensus, to be sure, for there is a minority who suggest other dates. However, the ratio of New Testament scholars who prefer AD 30 over AD 33 as the year of Jesus's execution is more than two to one, and that ratio is higher still for AD 30 when compared to any other year.

Before sampling this consensus, it will be instructive to review what LDS Apostles have said concerning the dating of the Savior's death. During the 1800s, the exact year of Jesus's crucifixion was not a debated issue in LDS conversation, and there is no record of any Church Presidents, from Joseph Smith to Lorenzo Snow, having commented upon the subject. Elder Orson Pratt of the Quorum of the Twelve Apostles did offer his calculation, on record, that the crucifixion occurred on April 6, AD 30.<sup>12</sup> During the 1900s, three different LDS Apostles published lengthy authoritative treatments on the life of Christ. In his 1915 work *Jesus the Christ*, Elder James E. Talmage reckoned the year of Jesus's death as AD 33.<sup>13</sup> In contrast, President J. Reuben Clark, in his 1954 study entitled *Our Lord of the Gospels*, preferred the year AD 30,<sup>14</sup> as did Elder Bruce R. McConkie in 1980 in his four-volume series *The Mortal Messiah*.<sup>15</sup> It is

<sup>12.</sup> Elder Orson Pratt did not say "AD 30" but instead said "the 6th day of April the very day on which he was crucified precisely eighteen hundred years prior to the organization of this Church." This clearly means AD 30, which is also clear from his reckoning of Jesus's birth in April of 4 BC. See Orson Pratt, in *Journal of Discourses*, 26 vols. (Liverpool: F. D. Richards, 1855–86), 13:126–27, April 10, 1870; and 15:256–57, December 29, 1872. It should also be noted that Elder Pratt believed the crucifixion occurred on a Friday, rather than on Thursday as proposed by this study.

<sup>13.</sup> See James E. Talmage, *Jesus the Christ* (Salt Lake City: Deseret Book, 1915), 103, where an AD 33 crucifixion date is implied in the statement "we accept the Dionysian basis as correct."

<sup>14.</sup> J. Reuben Clark, *Our Lord of the Gospels* (Salt Lake City: Deseret Book, 1954), 4, 120, 361. It is of note that The Church of Jesus Christ of Latter-day Saints officially published *Our Lord of the Gospels* as a Melchizedek Priesthood instruction manual in 1958.

<sup>15.</sup> Bruce R. McConkie, *The Mortal Messiah*, vol. 4 (Salt Lake City: Deseret Book, 1981), 6, 19.

notable that of these three twentieth-century Apostles who prepared systematic studies on Jesus's life, two of the three agreed his death occurred in AD 30 rather than in AD 33, which mirrors the ratio in modern New Testament scholarship in general. All three Apostles, it should be noted, accepted the common tradition that Jesus was executed on a Friday.

Of modern LDS scholars who have addressed the issue of dating Jesus's death, we may first sample recent commentaries by a rising generation of Brigham Young University professors. Thomas A. Wayment's 2005 assessment entitled "The Birth and Death Dates of Jesus Christ" states a solid case for AD 30 as the year of Jesus's execution:

The most likely date for the death of the Savior is A.D. April 7, 30. This date coincides with the majority of other date-specific references in the Gospels and elsewhere. . . . It also agrees with the dating provided by Josephus and Roman sources for the reigns of important historical figures. The early Christian author Clement of Alexandra also refers to this date. The Montanists, an early Christian splinter group, also recognized April 6 or 7 as the date of Jesus' crucifixion. After considering all the historical accounts, we maintain that the first weekend of April A.D. 30 is the most likely time of the death of Jesus.<sup>16</sup>

Two other respected LDS professors, Richard Neitzel Holzapfel and Eric D. Hunstman, joined Wayment as coauthors of *Jesus Christ and the World of the New Testament*, a richly illustrated 2006 reference volume, where the dating reference to the crucifixion is noted as "likely April 6 or 7, A.D. 30."<sup>17</sup> Although Wayment has not remained entirely consistent in this view,<sup>18</sup> my 2010 study concluded that Jesus died in AD 30, though

<sup>16.</sup> Thomas A. Wayment, "The Birth and Death Dates of Jesus Christ," in *The Life and Teachings of Jesus Christ: From Bethlehem through the Sermon on the Mount*, ed. Richard Neitzel Holzapfel and Thomas A. Wayment (Salt Lake City: Deseret Book, 2005), 394.

<sup>17.</sup> Richard Neitzel Holzapfel, Eric D. Huntsman, and Thomas A. Wayment, *Jesus Christ and the World of the New Testament* (Salt Lake City: Deseret Book, 2006), 44.

<sup>18.</sup> Blumell and Wayment, in "When Was Jesus Born?" 70, suggest that evidence "seems to prefer a death date around AD 29 or 30." However, they also assert that "we cannot know with any degree of certainty in which year Jesus died" (69). This seems like a marked departure from Wayment's earlier, quite detailed and definitive support for AD 30 as the year of Jesus's execution (see nn. 16 and 17 above).

my preference for Thursday, April 6, implied in the notes of that article, was not expressly stated.<sup>19</sup>

Turning now to the vast world of New Testament scholarship in general, among twentieth-century Protestant experts none is more respected and influential than F. F. Bruce, who produced several highly regarded histories and commentaries on the New Testament. Based on historical factors, Bruce dates the crucifixion to AD 30 in all of his works, including his widely used *New Testament History*,<sup>20</sup> his well-respected commentary *The Gospel of John*,<sup>21</sup> and his landmark study *The New Testament Documents*.<sup>22</sup>

Raymond Brown is perhaps the most respected and preeminent among twentieth-century Catholic scholars of the New Testament. In his exhaustive, two-volume commentary entitled The Death of the Messiah, he explores the views of virtually all of his contemporaries (of all denominations) on issues related to the narratives of Jesus's final days and death. With regard to dating, Brown cites the 1969 study of German scholar Josef Blinzler,<sup>23</sup> in which 53 of 100 noted scholars maintain that AD 30 must be the date of Jesus's death. Brown summarized those scholars' views: "Between one and three respectively have opted for the years 26, 27, 28, 31, 32, and 36. Thirteen opted for AD 29, fifty-three for 30, and twenty-four for 33."24 In this observation, it is clear that an absolute majority of the scholars surveyed support AD 30, and there is a more than two-to-one preference for AD 30 over AD 33, as noted earlier. The preference rises to four to one for AD 30 over AD 29. Brown notes Pierre Benoit (a fellow Catholic scholar), Bruce Metzger (a prominent American Presbyterian scholar), Joachim Jeremias (the famous German Lutheran scholar), and David Flusser (the preeminent Jewish scholar on early Christianity) as "among the more famous or knowledgeable

<sup>19.</sup> Chadwick, "Dating the Birth of Jesus Christ," 15–17 and 33 nn. 42–44.

<sup>20.</sup> F. F. Bruce, *New Testament History* (Garden City, N.Y.: Doubleday, 1980), 188.

<sup>21.</sup> F. F. Bruce, The Gospel of John (Grand Rapids, Mich.: Eerdmans, 1983), 252.

<sup>22.</sup> F. F. Bruce, *The New Testament Documents: Are They Reliable?* 6th ed. (Grand Rapids, Mich.: Eerdmans, 1981), 6.

<sup>23.</sup> Josef Blinzler, *Der Prozess Jesu* (Regensburg, Ger.: Verlag Friedrich Pustet, 1969), 101–2.

<sup>24.</sup> Raymond E. Brown, *The Death of the Messiah*, 2 vols. (New York: Doubleday, 1994), 2:1375.

authorities who have opted for AD 30.<sup>25</sup> To Blinzler's list must be added scholars whose works appeared after his study was published and who favored AD 30, such as Catholic scholars Jerome Murphy O'Connor,<sup>26</sup> Joseph Fitzmyer, and Bargil Pixner,<sup>27</sup> as well as the prolific but idiosyncratic Bart Ehrman,<sup>28</sup> who is of no current religious affiliation.<sup>29</sup>

As for Brown himself, after considering the positions of all of the above and more, he concludes, based partially on the astronomical study of Oxford scholars Humphreys and Waddington, that Jesus died in either AD 30 or 33, but does not favor one over the other.<sup>30</sup> (That Brown equivocates between these two dates is interesting when it is remembered that James E. Talmage adamantly advocated AD 33.)<sup>31</sup> Brown implies that a primary issue in his indecision is that he has no measure by which to ascertain the length of Jesus's life and thus cannot be certain about which year he died.<sup>32</sup> The credibility given by Brown to the calculations of Humphreys and Waddington, however, demands that we review their study. But before that, a word about the length of Jesus's life is in order.

# The Length of Jesus's Life in the Book of Mormon

There are no reports concerning the exact length of Jesus's life in the New Testament or any other scriptural or historical sources from the ancient

30. Brown, Death of the Messiah, 2:1375–76.

31. Brown's option of AD 33 is ruled out by the study of Chadwick, "Dating the Birth of Jesus Christ" (15–17), which demonstrates that Talmage's preference for AD 33 as the date of Jesus's death is not possible, a conclusion that Blumell and Wayment agree with in "When Was Jesus Born?" (70–72). Notable also, however, is that AD 29, one of Blumell and Wayment's suggestions for the date of Jesus's death (see note 18 above) was ruled out in Brown's view.

32. Brown, Death of the Messiah, 2:1376.

<sup>25.</sup> Brown, Death of the Messiah, 2:1375 n. 50.

<sup>26.</sup> Jerome Murphy-O'Connor, *The Holy Land*, 4th ed. (New York: Oxford University Press, 1998), 3.

<sup>27.</sup> Bargil Pixner, *With Jesus in Jerusalem: His First and Last Days in Judea* (Rosh Pina, Israel: Corazin Publishing, 1996), 181.

<sup>28.</sup> Bart D. Ehrman, *The New Testament: A Historical Introduction to the Early Christian Writings*, 5th ed. (New York: Oxford University Press, 2012), xxxiv.

<sup>29.</sup> Bart Ehrman is identified as an agnostic and no longer a Christian in his own Wikipedia article, available at http://en.wikipedia.org/wiki/ Bart\_D.\_Ehrman.

Near East. Latter-day Saints are fortunate to have the Book of Mormon, in which there is a chronological indicator that Jesus lived thirty-three full years. The explanation I gave in my 2010 article may be profitably reviewed here:

The book of 3 Nephi reports that a sign appeared in ancient America on the very day that Jesus was born on the other side of the world (see 3 Ne. 1:12–19). Some nine years later, "the Nephites began to reckon their time from this period when the sign was given, or from the coming of Christ" (3 Ne. 2:8). Then, thirty-three full years after the sign of Jesus's birth, a great storm occurred, accompanied by significant destruction and three days of darkness, marking the day on which Jesus died (see 3 Ne. 8:5–23). In connection with this destructive sign of Jesus's death, Mormon recorded that "the thirty and third year had passed away" (3 Ne. 8:2) and that the storm hit "in the thirty and fourth year, in the first month, on the fourth day of the month" (3 Ne. 8:5). In terms of how many years Jesus lived in mortality, the record in 3 Nephi seems clear. Jesus lived thirty-three full years, not a year more or a year less.<sup>33</sup>

It should be noted that the years referred to in the report of 3 Nephi would have been lunar years of twelve lunar months,<sup>34</sup> intercalated to coincide over time with the tropical or solar year of 365 days. This combination is commonly referred to as the lunar-solar calendar. Thus, Jesus would have lived thirty-three years tropical or solar years. Although a thirty-three-year lifespan has been questioned,<sup>35</sup> the description in my previous study is again useful:

35. See Blumell and Wayment, "When Was Jesus Born?" 62–64, where those authors conclude that the Book of Mormon evidence only "indicates [that] Jesus lived between thirty-two and nearly thirty-four years" (64). They maintain that "the weakness in Chadwick's argument is that he fails to account for the many variables in Nephite chronology" (76 n. 37), yet many of these issues were covered in the treatment of the *Haab* in Chadwick, "Dating the Birth of Jesus Christ," 19, and in the description of Nephite dating on pages 18–19, elements of which are covered below (pp. 145–47).

<sup>33.</sup> Chadwick, "Dating the Birth of Jesus Christ," 18.

<sup>34.</sup> For the Jewish calendar year described as "lunar," see Stern, *Calendar and Community*, 1. Note that Stern explains that the Jewish calendar is also correctly described as a lunar-solar or lunisolar: "Jewish . . . lunar calendars are usually referred to as 'lunisolar,' because they keep up with the annual solar year by adding a 13th lunar month every two or three years; in this respect, these calendars comprise a solar element, which distinguishes them from purely lunar calendars such as the Muslim calendar."

The Nephites were still observing the Law of Moses during the 3 Nephi period.<sup>36</sup> The performances of the Law of Moses, as found in biblical writings available to the Nephites (on the brass plates of Laban), were keyed to the seasons of the 365-day solar year, beginning with a "first month" (see Ex. 12:2, 18), which was the spring month that the biblical record called Aviv (KJV "Abib," a name that actually means "spring"; see Ex. 23:15; 34:18; Deut. 16:1). But the solar count notwithstanding, those biblical months ran on a lunar cycle, beginning with each new moon. In other words, the ancient biblical months were lunar counts, even though the Jewish agricultural and festival year was based on the seasons of the solar count. This is why the Jewish year is referred to as lunar-solar. The lunar count was intercalated to coincide with the solar count. A twelve-month lunar year is only 354 days long, on average, which is eleven days shorter than the 365-day year. Without adjustment, the first month of the lunar year would occur eleven days earlier each solar year. Within just a few years it would fall back to winter rather than spring, and within a few more to autumn instead of winter, and so on. So the ancient Israelites devised a system of intercalation that added an extra month to their year every three years or so in order to ensure that their first month (according to the lunar count) always stayed in early spring (according to the solar count).<sup>37</sup>

The exact method of intercalation in biblical times (and also among the Nephites) is not known. Even as late as New Testament times, there was not yet a fixed calculation that automatically inserted an extra month when needed—this was done by consensus of the Jewish sages observing the signs of the seasons.<sup>38</sup> The fixed cycle of the lunar-solar Jewish year in modern use is usually said to have come into use in the fourth century, instituted by the rabbinical sage Hillel II in AD 358 (although there is even debate on whether this early date is accurate).<sup>39</sup> That the ancient Jewish year was a lunar-solar count, however, is well known, and that the Nephites used this biblical lunar-solar count is an inescapable

<sup>36.</sup> For a brief discussion on Nephite adherence to and cessation of the Law of Moses in the narrative of 3 Nephi, see pages 193–96 of Jeffrey R. Chadwick, "What Jesus Taught the Jews about the Law of Moses," *The Life and Teachings of Jesus Christ: From the Transfiguration through the Triumphal Entry*, ed. Richard Neitzel Holzapfel and Thomas A. Wayment (Salt Lake City: Deseret Book, 2006), 176–207.

<sup>37.</sup> Chadwick, "Dating the Birth of Jesus Christ," 18–19.

<sup>38.</sup> For a detailed description of the Jewish calendar intercalation during the period under discussion, see Stern, *Calendar and Community*, 47–98.

<sup>39.</sup> Stern, Calendar and Community, 175.

conclusion. This does not mean that Nephites did not also concurrently operate according to other calendar counts that were in use in ancient American society, such as the Mayan Haab (the 365-day solar year), the 260-day Tzolkin, or the "Long Count" system of k'ins, winals, and tuns.<sup>40</sup> (Contrary to some LDS sources, however, the 360-day tun count was not regarded as a year.<sup>41</sup>) That Nephites functioned within the Mesoamerican macroculture of which they presumably were a part is a conclusion shared by many Book of Mormon scholars. That the Nephites would also have concurrently observed the biblical lunar-solar calendar of the Law of Moses is a sound assumption, as noted in the previous study: "To properly observe the Law of Moses, the Nephites would have observed Passover in the 'first month' (Ex. 12:2; 18), which their biblical record would have called Aviv, or spring (Ex. 23:15; 34:18; Deut. 16:1). That the first Nephite month did indeed fall in spring, at least at the time of Jesus's death, seems clear from the account in 3 Nephi 8:5."42 And that the Jewish Passover (in Jerusalem) occurred during the Nephite "first month" is a key indicator that the Nephites employed the lunar-solar count to reckon their years in 3 Nephi. Neither the 365-day Mayan Haab year<sup>43</sup>

41. Coe does not refer to the *tun* as a "year" anywhere in his discussion of the Mayan calendar system, although he does refer to the *Haab* as such. See Coe, *Maya*, in note 40 above.

<sup>40.</sup> For a description of the Mesoamerican (Mayan) calendar system, see Michael D. Coe, *The Maya*, 8th ed. (New York: Thames and Hudson, 2011), 62–69 and 231–35. The *Haab* was the 365-day solar year of eighteen 20-day months and a 5-day year-end period known as *wayeb*. The *Haab* year was also intercalated with the 260-day count called *Tzolkin* in a system known to scholars as the Calendar Round, a cycle that repeated itself every 52 years. The separate, long-term dating system known as the Long Count involved the perpetually increasing sum of *k'ins* (days), *winals* (20-day periods), *tuns* (360-day periods that were the sum of 18 *winals*), *ka'tuns* (7,200-day periods that were the sum of 20 *tuns*), and *bak'tuns* (144,000-day periods that were the sum of 20 *ka'tuns*), calculated from a theoretical starting point in 3114 BC.

<sup>42.</sup> Chadwick, "Dating the Birth of Jesus Christ," 19.

<sup>43.</sup> The *Haab* year falls back against the true solar year by one day every four years, due to the fact that Mayans did not provide for a leap day (the true solar year actually being 365<sup>1</sup>/<sub>4</sub> days long). See Coe, *The Maya*, 64. Thus, the *Haab* fell back against the true solar year by some 25 days each century. The new-year celebration for the *Haab* is known to occur during the five-day *wayeb* period at the end of each *Haab*, followed immediately by the first 20-day month (called *Pop*) of the newly beginning *Haab*. The *wayeb* new-year celebration is also known to have begun on July 16 in the era around 1550 (the time of Bishop Diego de Landa in the Yucatan), with *Pop* then beginning on July 21 in that era. See Coe,

nor the 360-day *tun* began in the spring season.<sup>44</sup> Yet the Nephite year of 3 Nephi 8 did begin in the spring. All of the combined evidence suggests

44. It is possible to calculate the Long Count value for any Gregorian or Julian calendar date in history, which allows us to see what the *winal* (20-day period) for that tun date was. Using the online calculator of the prestigious Smithsonian Institute (available at http://maya.nmai.si.edu/calendar/mayacalendar-converter), I determined Long Count values for four selected dates discussed in the present study as candidates for the Jewish date 14th of Nisan, to see on what Long Count k'in/day the selected date fell, and to see in what winal it occurred. None of the sample dates fell in the first winal. This means the spring "first month" of 3 Nephi 8 cannot be regarded as having been the first winal of a tun for any of the selected dates. Likewise, no Haab date in these samples fell in the first Haab month of Pop. In the sample results presented below, the Long Count is given as five numbers separated by four periodsthese represent the bak'tun, ka'tun, tun, winal, and k'in. These are followed by a heavy dot divider, and then the Calendar Round day number and name of the Tzolkin count, and the day number in the named month of the Haab year. In the samples, readers should focus on the fourth and fifth numeric figures (the winal and the k'in) in the Long Count, and observe that no winal is calculated as 1 (in other words, no *winal* in the samples could be conceived as having been a "first month"). After the dot divider, in the two Calendar Round date-names, readers may focus on the second date-name combination and note that in all four cases the month name is Mak, the 13th month of the 18 months in the Haab year (in other words, no "first month" appears in these samples, since all are calculated in the 13th month, called Mak). The four samples follow:

AD 33, Friday, April 2 (Gregorian), April 4 (Julian) = Long Count 7.19.11.8.0 • 10 *Ajaw* 8 *Mak* 

[this *k'in*/day was the "o" or seat day of the 8th *winal*; the *Haab* date 8th of *Mak*, the 13th month]

AD 30, Friday, April 5 (Gregorian), April 7 (Julian) = Long Count 7.19.8.7.7 • 9 *Manik*' 10 *Mak* 

[this *k'in*/day was the 7th day of the 7th *winal*; the *Haab* date 10th of *Mak*, the 13th month]

AD 30, Thursday, April 4 (Gregorian), April 6 (Julian) = Long Count 7.19.8.7.6 • 8 *Kimi* 9 *Mak* 

[this *k'in*/day was the 6th day of the 7th *winal*; the *Haab* date 9th of *Mak*, the 13th month]

*Maya*, 233. Calculating the day loss backward from 1550 to AD 30 (1,520 years) as 380 days against the true solar year would also place the *Haab* new year in *wayeb* around July 1 in the AD 30 era, with the month of *Pop* beginning about July 6. Thus, the "first month" of the Nephite year, which occurred in connection with the spring Passover in 3 Nephi 8, cannot have been the new year or first month of the *Haab*. 3 Nephi 8 does not seem to be speaking of *Haab* years.

that Jesus was thirty-three full solar years of age at his death,<sup>45</sup> reckoned according the biblical lunar-solar calendar count.<sup>46</sup> In "Dating the Birth

Each of the above samples dates to the 7th or 8th *winal* of the noted *tun*, and none of these *winals* can be regarded as a "first month." Note again that the 20-day *Haab* month of *Mak* is the 13th month of the 18 months that made up the *Haab* count. *Mak* cannot be mistakenly regarded as a "first month" just because it follows *Keh*, the 12th month of the *Haab*, since the *Haab* has a total of 18 such months. For the list of all 18 *Haab* months see Coe, *Maya*, 63.

45. The Maya had a very accurate idea of the real length of the true solar (tropical) year of 365<sup>1</sup>/<sub>4</sub> days. See Coe, Maya, 234. There is no indication that the Maya thought of their tun count as a "year," and nowhere in his descriptions does Coe refer to the *tun* as a "year." The Maya did, however, regard the *Haab* as their year, with accompanying new-year celebrations at the end of each Haab (see note 43 above). Thus, the models used by some LDS investigators cited by Blumell and Wayment, such as Clark, Gardner, and Sorenson (see "When Was Jesus Born?" 76 nn. 39–40), which use the *tun* to calculate Lehi's 600-year prophesy (as 591 or 592 real years), or the 33-year length of Jesus's life calculated as 32 real years, are ultimately to be rejected. The natives of ancient America simply did not regard the tun as a year. Sources cited by Blumell and Wayment are John Clark, "Archaeology, Relics, and Book of Mormon Belief," Journal of Book of Mormon Studies 14, no. 2 (2005): 46-47; Brant Gardner, Second Witness: Analytical and Contextual Commentary on the Book of Mormon (Salt Lake City: Greg Kofford Books, 2007), 1:362-63; and John L. Sorenson, An Ancient American Setting for the Book of Mormon (Salt Lake City: Deseret Book; and Provo, Utah: FARMS, 1985), 272-73.

46. The model of Spackman, cited by Blumell and Wayment (see "When Was Jesus Born?" 76 nn. 40–41), maintains that the Nephites used a strictly lunar calendar for reckoning their years and that Lehi's 600-year prophecy may be calculated using only the 354-day lunar count. See Randall P. Spackman, "The Jewish/Nephite Lunar Calendar," *Journal of Book of Mormon Studies* 7, no. 1 (1998): 51, 54. But this does not account for the fact that a lunar-solar calendar is required for Law of Moses reckoning, which the Nephites clearly observed, particularly in regard to the required Law of Moses festivals that were tied to the seasons of the solar year. Blumell and Wayment also maintain that Lehi's prophecy must be counted from 597 BC to a point between 7 BC and 5 BC, and that "600 Nephite years would correlate to roughly 591 modern years." See "When Was Jesus Born?" 77 n. 42. This also fails to account for the fact that a lunar-solar year would have been required for Nephite observance of Mosaic law. More compelling is a model that relies on full, regular years and that dates "the first year of the reign of Zedekiah" spoken of in 1 Nephi 1:4 to 609 BC rather than

AD 29, Friday, April 13 (Gregorian), April 15 (Julian) = Long Count 7.19.7.7.10 • 3 *Ok* 18 *Mak* 

 $<sup>(12, 12, 10) \</sup>bullet 3 \text{ OK 16 Wiak}$ 

<sup>[</sup>this *k'in*/day was the 10th day of the 7th *winal*; the *Haab* date 18th of *Mak*, the 13th month]

of Jesus Christ," evidence was presented supporting the conclusion that Jesus's actual life span was thirty-three years and three or four months (not more), and also by this calculation Jesus would have been thirty-three full years old at his death.<sup>47</sup>

Knowing from the Book of Mormon that Jesus lived thirty-three full years, but not thirty-four years or longer,<sup>48</sup> rules out AD 33 as a possible

47. See the discussion in Chadwick, "Dating the Birth of Jesus Christ," 19–21.

48. Wayment theorizes that "the time period between the sign of Jesus's birth and the signs of his death was thirty-four years" and parenthetically adds "thirty-three years if counted inclusively" (see Wayment, "Birth and Death Dates," 393). In "Dating the Birth of Jesus Christ," 35 n. 50, I pointed out an error in Wayment's model, but I also made an error of my own: "A thirty-fourth year could not be counted unless the year had passed away, but the text of 3 Nephi 8:5 specifies that the thirty-fourth year had just barely begun and also specifies that thirty-three years had passed away (3 Ne. 7:23, 26). Therefore, the number of years that had passed was not 'thirty-three years if counted inclusively,' as Wayment suggests, but simply thirty-three years." Thus, I must acknowledge that Wayment was correct in saying "thirty-three years if counted inclusively," but his reference to thirty-four years was in error. In "When Was Jesus Born?" 77 n. 43, Blumell and Wayment attempted an explanation: "Because the 3 Nephi 8:5 reference may be built upon an adjustment of the Nephite calendar to accord with the birth of Christ, it seems prudent to be cautious because the thirty-fourth-year reference may include a portion of the original Nephite year." This explanation, however, is confusing and still incorrectly focuses on the thirty-fourth year. To be sure, Blumell and Wayment accurately sense a lack of absolute arithmetic clarity in 3 Nephi 1-8 with regard to Jesus's age at his death, but the real issue is not whether Jesus was 33 or 34 years old at his death, but whether the text is indicating he was 32 or 33. This is to say that it is not absolutely clear in the 3 Nephi 1 narrative whether Jesus was born in the 91st or the 92nd year of the judges. If 3 Nephi 1 is read as placing Jesus's birth in the 92nd year (which seems the likely reading), then the signs of Jesus's death in 3 Nephi 8 would make him only 32 years and a few months old at his execution (this is calculated from the references in 3 Nephi 2:5-7, which synchronize the 100th year of the judges with the 9th year since the sign of Jesus's birth). But if 3 Nephi 1 is read "inclusively" with regard to the 91st year of the judges, and Jesus's birth is placed in that year, then he was indeed 33 years and a few months old at the sign of his death in 3 Nephi 8. How best to read the numbers in 3 Nephi 1 is not a settled issue, and I believe this may be one of at least two possible reasons that Mormon sensed the possibility of error in the Nephite

<sup>597</sup> BC, with Lehi's departure from Jerusalem occurring late in 605 BC, exactly 600 years prior to Jesus's birth at the end of 5 BC, as discussed in Jeffrey R. Chadwick, "Has the Seal of Mulek Been Found?" *Journal of Book of Mormon Studies* 12, no. 2 (2003): 117–18 n. 24; and Jeffrey R. Chadwick, "An Archaeologist's View," *Journal of Book of Mormon Studies* 15, no. 2 (2006): 123 n. 7.

year for Jesus's death and indeed rules out any year later than AD 30. This is a matter of simple addition. Here is why. It is a historical fact that the death of Herod the Great occurred in April of 4 BC, but the birth of Jesus occurred prior to Herod's death (see Matt. 2:1-20). And as demonstrated in the earlier study, Jesus's birth cannot have occurred later than eight weeks prior to Herod's death, meaning that the latest date Jesus can have been born was very early February of 4 BC (although I suggest it was even several weeks earlier, in December of 5 BC).49 Calculating forward to a Passover that fell thirty-three full years after the absolute latest birth date possibility of early 4 BC yields a result of AD 30 as the latest possible



**FIGURE 1.** Author Jeffrey R. Chadwick displays a Roman period manger, cut out of limestone, unearthed in Israel. The newborn Jesus would have been laid in just such a manger on the day of his birth. Photo by Kim Chadwick.

year that Jesus can have died. (In counting this, remember that there was no "year zero"—there was only one year from 1 BC to AD 1). Thus, AD 31, AD 32, and AD 33 are all ruled out as years when Jesus can have died. They were too late to accommodate the life span reported in the Book of Mormon. Of the two candidates to which Raymond Brown had narrowed his preferences, the New Testament and the Book of Mormon combine to demonstrate that only AD 30 is a possibility for Jesus's death.

record's calculation of the years since Jesus's birth, evident in his caveat "if there was no mistake made by this man in the reckoning of our time" (3 Ne. 8:2). However, other evidence cited in the present study enables us to rule out the notion that Jesus was only 32 years old at his death—such a notion would place the crucifixion in the year AD 29, which is not possible for at least two different reasons (see fig. 4 on page 159). From the 3 Nephi text, however, it is absolutely clear that the thirty-fourth year cannot be part of the year count of Jesus's life. The fact is obvious that the elapsed time between Jesus's birth and death was not thirty-four years—the text is specific in explaining that only thirty-three full years had passed away (3 Ne. 8:2).

<sup>49.</sup> Chadwick, "Dating the Birth of Jesus Christ," 25.

# The Length of Jesus's Ministry—Three Years or Two?

Another key factor in determining the year of Jesus's death has always been the question of how long his active ministry lasted. There are a considerable number of scholarly approaches to this issue. Some commentators, unwilling to accept the Gospel of John as chronologically reliable,<sup>50</sup> utilize only the synoptic Gospels, Matthew, Mark, and Luke, none of which record the beginning of Jesus's ministry in Judea, and which mention only one Passover festival, the one at which Jesus was executed. Such commentaries generally suggest a ministry lasting only a year, or they conclude that the length of Jesus's ministry cannot be calculated. However, among the commentaries that accept the reliability of the Gospel of John, two ministry models are prominent: the two-year model and the three-year model. In this study, I advocate for the twoyear model. But an understanding of both models is important in this discussion.

The three-year model of Jesus's ministry, commonly found in LDS commentaries, is based on the theory that the unnamed "feast of the Jews" mentioned in John 5:1 was a Passover festival. This idea is also known as the four-Passover theory. In this model, the holiday of John 5:1 is added to the three specifically named Passovers of John 2:13, 6:4, and 12:1 to arrive at a total of four Passovers. Thus, the first spring-to-spring year of Jesus's ministry is counted from the Passover of John 2 (Passover #1) to the supposed Passover of John 5 (#2), the second year from John 5 to the Passover of John 6 (#3), and the third and final year from John 6 to the Passover of John 12 (#4). There are two weaknesses in this model, however. One is that Jesus's exact age at the beginning of his ministry is not certain. In most LDS commentaries, it is generally supposed that Jesus had turned thirty years old just before the Passover of John 2 and turned thirty-three years old at his final Passover in John 12. But Luke is the only Gospel account that mentions Jesus's age, and all that is said in Luke is that at the time of his baptism, Jesus "began to be about thirty years of age" (Luke 3:23). The words "began" and "about" render this statement imprecise in terms of how old Jesus actually was at his baptism. Had he turned thirty yet, or was he a little younger than thirty? Or, perhaps more likely, was he a little older than thirty, maybe thirty-one? A three-year ministry model, lasting from age thirty to thirty-three, cannot be demonstrated based on the imprecise

<sup>50.</sup> On the reliability of the Gospel of John, see James H. Charlesworth, "The Historical Jesus in the Fourth Gospel: A Paradigm Shift?" *Journal for the Study of the Historical Jesus* 8 (2010): 3–46.

statement of Luke 3:23. The second weakness in the four-Passover theory is that the feast of John 5:1 is *not* called a Passover by John. In all other cases, where John meant a Passover he specifically called the festival a Passover. That he did not do so in John 5:1 seems a clear indicator that it was *not* a Passover. In fact, the themes of Jesus's teachings at the temple in John 5 are the identifiable themes of the autumn Rosh Hashanah (New Year) festival,<sup>51</sup> which occurred in mid to late September, on the first day of the month of Tishri, the first month of the Syrian and secular Jewish year. Scholars such as Bruce, taking into account the context of Jewish culture in understanding the New Testament, point to Rosh Hashanah as the festival of John 5:1, which can be reliably placed midway between the Passover of John 2 and the Passover of John 6.<sup>52</sup>

The two-year model of Jesus's ministry is based primarily upon the three specifically mentioned Passover festivals in the Gospel of John: the Passover at which Jesus began his public ministry (John 2:23), a Passover midway through his ministry (John 6:4), and the Passover at which he was executed (John 12:1). That the Passover of John 6 is not the same event as the Passover of John 12 is clear from the fact that between the two references are accounts of a Sukkot festival (the autumn "feast of tabernacles" of John 7:2) and a Hanukkah festival (the winter "feast of dedication" of John 10:22). The two-year model of Jesus's ministry identifies a first year from the Passover of John 2 to the Passover of John 6, and a second (final) year of his ministry from the Passover of John 6 to the Passover of John 12. Bruce explains how this model accounts for virtually all of the historical factors involved with dating Jesus's ministry:

The crucifixion of Christ took place, it is generally agreed, about AD 30. According to Luke 3:1, the activity of John the Baptist, which immediately preceded the commencement of our Lord's public ministry, is dated in "the fifteenth year of Tiberius Caesar." Now, Tiberius became emperor in August, AD 14, and according to the method of computation current in Syria, which Luke would have followed, his fifteenth year commenced in September or October, AD 27. The fourth Gospel mentions three Passovers after this time; the third Passover from that date would be the Passover of AD 30, at which it is probable on other grounds that the crucifixion took place. At this time, too, we know

<sup>51.</sup> On the themes of John 5 as Rosh Hashanah, see pages 84–85 in Chadwick, "The Jerusalem Temple, the Sadducees, and the Opposition to Jesus," in Holzapfel and Wayment, *From Bethlehem through the Sermon on the Mount*, 48–88.

<sup>52.</sup> Bruce, New Testament Documents, 49.

from other sources that Pilate was Roman Governor of Judaea, Herod Antipas was tetrarch of Galilee, and Caiaphas was Jewish high priest.<sup>53</sup>

In a footnote to the second sentence of the preceding passage, Bruce explains Luke's point of reference in dating Tiberius's reign:

The method in Syria, retained from the days of the Seleucid kings, was to reckon the start of a new regnal year in September–October. As Tiberius became emperor in August, AD 14, his second regnal year would thus be regarded as beginning in September–October of the same year. The Passover of Jn. 2:13ff. accordingly was that of March, AD 28, and this agrees with the chronological indication of 2:20, for Herod's temple was commenced in 20–19 BC, and 46 years from that brings us to AD 27–28.<sup>54</sup>

Now, it should be noted that the Jewish general and historian Josephus gave two conflicting reports about the year in which construction on Herod's temple was begun. In The Jewish War (1.21.1) he stated that the temple's construction was commenced in the fifteenth year of Herod's reign, which would be the year 23/22 BC (the year being counted, in Syrian and Jewish practice, from October to September). But in his later work, Antiquities of the Jews (15.11.1), Josephus dated the commencement of temple construction to the eighteenth year of Herod's reign, which would be the year 20/19 BC. The later date is more likely to be correct, as it was noted in the later work, which presumably corrected the earlier work's error. If the Passover of spring 19 BC is reckoned as being in year 1, then the Passover of spring AD 27 would have to be reckoned as being in year 46, and the Passover of spring AD 28 would be in year 47. The passage in John 2:20—"Forty and six years was this temple in building"-is somewhat ambiguous and could be taken to mean either that the temple was in its forty-sixth year of construction or that the forty-sixth year of construction had passed when Jesus opened his ministry at Passover. Wayment, for example, seems to opt for the former, and suggests "a date of 26-27 AD ... as the first year of Jesus' ministry."55 But this is likely too early (Brown notes no scholar who favors it),<sup>56</sup> and a wider consensus agrees with Bruce that the Passover of spring AD 28 is preferable in calculating the forty-six-year count. As

<sup>53.</sup> Bruce, New Testament Documents, 12.

<sup>54.</sup> Bruce, New Testament Documents, 12 n. 1.

<sup>55.</sup> Wayment, "Birth and Death Dates of Jesus Christ," 391.

<sup>56.</sup> Brown, who gives summaries of scholarly models on these dating issues, does not note a single authority that favors AD 26/27 as the fifteenth year of

Brown observed, "Many scholars accept the latter date [of Josephus] as historical and use it to confirm Luke's chronology pointing to the year AD 28 as the commencement of Jesus' public activity."<sup>57</sup>

With regard to "the fifteenth year of the reign of Tiberius Caesar" (Luke 3:1), however, there is some scholarly confusion. Augustus Caesar died on August 19 of AD 14. If fifteen years are simply added to AD 14, the result is the year AD 29, or more precisely the Syrian (and Jewish) year from autumn AD 28 to autumn AD 29. Brown notes that "many would opt for Aug./Sept. AD 28-29" for Tiberius's fifteenth year,58 but this cannot be correct, since it would necessarily place the beginning of Jesus's ministry at the Passover of spring AD 29, too late for any ministry model that relies on the Gospel of John as well as the synoptic Gospels. Such a calculation also skips the few weeks from August 19 to the actual beginning of the year, which took place not in August, but in mid to late September (Brown errs in suggesting that the year began as early as August). When the last few weeks of the year AD 13/14 (that is, August 19 to mid-September AD 14) are counted as referring to Tiberius's first regnal year, then his fifteenth year would have been from autumn AD 27 to autumn AD 28. This more precise method is the one employed by Bruce above. It would place the beginning of John the Baptist's activities in the autumn of AD 27 or the winter of AD 27/28 and precisely places the beginning of Jesus's ministry to the Passover of spring AD 28.

Two significant issues are addressed by the remarks of Bruce, quoted earlier, and the rest of the discussion above. The first is that the implied point of reference for the beginning of the year, in both Luke 3 and John 5, was the autumn month of Tishri, the same which served as the first month of the year in the Syrian calendar (which, as noted earlier, was widely utilized in the eastern part of the Roman Empire). The second issue demonstrated by Bruce is that the two-year ministry model, in which Jesus began his activities at Passover of AD 28 and was executed at Passover of AD 30, is the model supported by the chronological allusion in Luke 3:1, the three specific Passovers mentioned by John, and by the historical reference of Josephus to the construction of the temple in Herod's eighteenth year. That Jesus died at Passover of AD 30 may now also be corroborated by the astronomical study of Humphreys and Waddington.

Tiberius, and, in fact, he himself calculates that year to 27/28. See Brown, *Death of the Messiah*, 2:1374.

<sup>57.</sup> Brown, Death of the Messiah, 2:1374.

<sup>58.</sup> Brown, Death of the Messiah, 2:1374.

### The Study of Humphreys and Waddington

In 1983, two professors at the University of Oxford, Colin J. Humphreys and W. Graeme Waddington, published an article presenting detailed astronomical information relating to the dating of Jesus's death.<sup>59</sup> Their data included precise calculations of the occurrences of the new moons in the spring seasons of every year from AD 26 to AD 36 (the duration of Pontius Pilate's governorship) and extrapolation of the Julian calendar dates and days of the week on which the 14th day of the Jewish month of Nisan (the eve of Passover) would have fallen. Their calculations took into consideration that the 14th of Nisan may occur only after the vernal equinox<sup>60</sup> (after March 20), since Passover was biblically mandated to be a spring event. Their own interpretation of the compiled data was that Jesus died in AD 33, on Friday, April 7 (Julian). The study of Humphreys and Waddington has been widely cited, and subsequent publications by the two scholars in 1989 and 1992 confirmed and expanded their data. My own study "Dating the Birth of Jesus Christ" utilized their astronomical data to specify that Jesus died in AD 30.

The method of Humphreys and Waddington was to determine the Julian calendar dates, weekdays, and times of the new moons as they would have appeared in Jerusalem in March and early April during the above-mentioned years, which in each case marked the beginning of the month of Nisan (Aviv). The Jewish day was reckoned with its beginning at sunset. The new monthly count began with the Jewish day following the Jewish day on which the new moon was observed (noting, obviously, that if the new moon occurred during daylight hours, its observation would not occur until the ensuing night). Counting ahead fourteen days in each case, Humphreys and Waddington determined the normal daytime day of the week and Julian calendar date on which the 14th of Nisan, the eve of Passover, fell in each year. Figure 2, opposite, is a table of their charted results, with their own caveat notes.

In considering the data of the Oxford scientists, and particularly the asterisk (\*) and dagger (†) notes that appear with their table in figure 2,

<sup>59.</sup> Colin J. Humphreys and W. Graeme Waddington, "Dating the Crucifixion," *Nature* 306 (December 22, 1983): 743–46.

<sup>60.</sup> See Stern, *Calendar and Chronology*, 70–71, who demonstrates that the vernal equinox rule was observed by Jews in the first century AD, even though by the fourth century AD there was some deviation from this norm.

Year (AD)	New Mo	oon time	Deduced	date of Nisan 14
26	6 April	6:40	Sunday	21 April
27	26 March	20:05	Thursday	10 April*
28	15 March	2:30	Tuesday	30 March
29	2 April	19:40	Monday	18 April†
30	22 March	19:55	Friday	7 April†
31	12 March	0:25	Tuesday	27 March
32	29 March	22:10	Sunday	13 April*
33	19 March	12:45	Friday	3 April
34	9 March	5:25	Wednesday	24 March
35	28 March	6:10	Tuesday	12 April
36	16 March	17:50	Saturday	31 March

The time of new Moon is given as calculated apparent (sundial) time of conjunction for Jerusalem ( $\pm$  5 min). The deduced date is the Julian day (from midnight to midnight), starting at 6th hour Nisan 14 and ending at 6th hour Nisan 15.

\* Nisan 14 AD 27 and AD 32 could have been on the following day if the new Moon was not detected due to poor atmospheric transparency.

† In each of these cases it is not impossible, but highly improbable, that Nisan 14 would have occurred on the preceding day.

**FIGURE 2.** Table 1 from Humphreys and Waddington, "Dating the Crucifixion" (1983), reproduced from their subsequent study "The Jewish Calendar, a Lunar Eclipse, and the Date of Christ's Crucifixion," *Tyndale Bulletin* 43, no. 2 (1992): 335.

two points may be profitably clarified.<sup>61</sup> First, the asterisk note in the table for AD 27 and AD 32 can be ignored. While poor atmospheric conditions could, on occasion, obscure the sighting of new moons, this would not affect the calculation of the 14th day of Nisan, since that day was not counted from the sighting of the new moon alone, but from a sighting of the moon that allowed for an accurate determination of when the new moon had actually occurred. This is evident from the Mishnah (Rosh Hashanah 2:8, see fig. 5) and will be discussed below. The second issue for clarification involves the dagger (†) notes for AD 29 and AD 30, which stipulate the possibility that the 14th of Nisan occurred

<sup>61.</sup> The adaptation of this table offered by Blumell and Wayment, "When Was Jesus Born?" 67, does not include these points, namely, the possible later dates or the possible earlier dates suggested by Humphreys and Waddington for the 14th of Nisan. Moreover, it adds dates for the 15th of Nisan, which are not part of Humphreys and Waddington's table.

a day earlier than posted on the chart. This is not "highly improbable," however, as the authors suggest. They seem to doubt that the new moon could be observed at the calculated early evening hour of its occurrence in those years and thus add an extra day in their count. But the sky in Jerusalem is sufficiently dark at 19:00 around April 1, even in the west, for the new moon to be easily observable at its actual occurrence. Hence, the fourteen-day count would have begun normally in both AD 29 and AD 30, and the 14th of Nisan would have actually fallen on Sunday, April 17, in AD 29 and on Thursday, April 6, in AD 30 (Julian dates).

In my 2010 study, I prepared a table (fig. 3), based on all the data of Humphreys and Waddington, which notes for each year the dates they calculated for the 14th of Nisan. In this table, two dates appear for some years, as reflected in the chart of Humphreys and Waddington, since the point of the 2010 study was only to demonstrate in what year Jesus must have died, in support of calculating a year of his birth. However, in that table, only the first day in those years was the absolute date for the 14th of Nisan—the second day may be disregarded, for the reasons mentioned above. This means that the 14th of Nisan fell on Thursday, April 10, in AD 27; on Sunday, April 17, in AD 29; on Thursday, April 6, in AD 30; and on Sunday, April 13, in AD 32.

In this table, asterisks (\*) appear by three years: AD 27, AD 30, and AD 33. These are the only years during the administration of Pontius Pilate when the eve of Passover, and Passover itself, fell within a threeday window of time prior to Sunday.<sup>62</sup> (This is also apparent in fig. 2.) As affirmed in all four Gospels, Jesus's body was in the tomb for three days, and his resurrection occurred on a Sunday, the "first day of the week." Therefore, the crucifixion cannot have occurred on any day from Saturday through Wednesday. Only Thursday and Friday fall within a three-day window of time prior to Sunday, and even this depends on how the three days are counted (as will be discussed below). So, when considering the historical factor of Pilate's administration, only AD 27, AD 30, and AD 33 qualify as candidates for the year in which Jesus could have died. However, when the historical factor of Tiberius Caesar's reign

<sup>62.</sup> This contrasts with the chart offered by Blumell and Wayment in "When Was Jesus Born?" 70, which allows that crucifixion on the 14th of Nisan could have occurred in AD 27, 29, 30, 32, 33, or 34. But the parameters behind their chart are unrealistically broad, no source or authority is cited for the chart, and no other New Testament scholars are on record supporting its results or the premises behind it.

Year	New Moon Time	Earliest Possible Day for 14th of Nisan
AD 26	06:40, April 6	Sunday, April 21
AD 27*	20:05, March 26	Thursday, April 10, or Friday, April 11
AD 28	02:30, March 15	Tuesday, March 30
AD 29	19:40, April 2	Sunday, April 17, or Monday, April 18
AD 30*	19:55, March 22	Thursday, April 6, or Friday, April 7
AD 31	00:25, March 12	Tuesday, March 27
AD 32	22:10, March 29	Sunday, April 13, or Monday, April 14
AD 33*	12:45, March 19	Friday, April 3
AD 34	05:25, March 9	Wednesday, March 24
AD 35	06:10, March 28	Tuesday, April 12
AD 36	17:50, March 16	Saturday, March 31

Weekdays and Julian Dates for the Fourteenth of Nisan during the Administration of Pontius Pilate as Prefect of Judea and Samaria, AD 26–36

\* The only instances when the fourteenth of Nisan fell on a Thursday or a Friday.

**FIGURE 3.** Table 2 from Chadwick 2010, as adapted from Humphreys and Waddington. The second days listed for AD 27, AD 29, AD 30, and AD 32 should be disregarded.

(discussed above) is taken into consideration, AD 27 must also be ruled out—Jesus cannot have died in the spring of AD 27, since the ministry of John the Baptist did not begin until after that point, in the fall or early winter of AD 27. This narrows down the choices to only AD 30 and AD 33 for the death of Jesus, which, as noted above, is where Brown left the question.

The year AD 33, however, can be ruled out as the year of the crucifixion, based on several other issues. It cannot be reconciled with either the two-year or the three-year models for the length of Jesus's preaching ministry, if the onset of Jesus's preaching was at Passover of AD 28, as determined by Bruce<sup>63</sup> and noted by Brown.<sup>64</sup> Even if that onset

<sup>63.</sup> Bruce, New Testament Documents, 12 n. 1.

<sup>64.</sup> With regard to AD 28 see Brown, Death of the Messiah, 2:1374.

date is shifted by a year one way or the other, to AD 27 (as suggested by Wayment)<sup>65</sup> or to AD 29 (as noted by Brown),<sup>66</sup> no model would bring the end of Jesus's activity as late as AD 33. And the fact that the Book of Mormon seems to indicate that Jesus lived thirty-three full years, combined with the fact that he cannot have been born later than the winter of 5/4 BC (as suggested in Wayment 2005 and shown in Chadwick 2010), means that AD 33 is too late a year to accommodate his lifespan. When all available scriptural and historical data are taken into consideration, only AD 30 emerges as the year in which Jesus must have died, as depicted in figure 4.

# The New Moon and the Month of Nisan

As noted, Raymond Brown is among the list of New Testament scholars who accept the study of Humphreys and Waddington as correctly dating the citing of the new moons of the month of Nisan during the later years of Jesus's life. But others have attempted to discredit it. These include Blumell and Wayment, who cite Roger T. Beckwith's dismissal of Humphreys and Waddington in two publications: a 1989 article and a 1996 book.<sup>67</sup> But the former is credibly rebuked by Brown, who chides it as "the very skeptical article of Beckwith . . . that calls into doubt almost every means used to calculate the year of Jesus' death."<sup>68</sup> And Beckwith's book, while rejecting the work of Humphreys and Waddington, does not actually address any specific issue or any piece of data offered by them, nor does it actually demonstrate a single flaw in any aspect of their study.<sup>69</sup>

By contrast, Blumell and Wayment focus on one specific issue in their dismissal of Humphreys and Waddington. In their *BYU Studies Quarterly* article, they maintain that the new moon was commonly sighted

<sup>65.</sup> With regard to AD 27 (the Jewish year AD 26–27), see Wayment, "The Birth and Death Dates of Jesus Christ," 391.

<sup>66.</sup> With regard to AD 29, see Brown, Death of the Messiah, 2:1374.

<sup>67.</sup> Roger T. Beckwith, "Cautionary Notes on the Use of Calendars and Astronomy to Determine the Chronology of the Passion," in *Chronos, Kairos, Christos*, ed. Jerry Vardamam and Edwin M. Yamauchi (Winona Lake, Ind.: Eisenbrauns, 1989), 183–205, and "The Date of the Crucifixion: The Misuse of Calendars and Astronomy to Determine the Chronology of the Passion," ch. 9 in Roger T. Beckwith, *Calendar and Chronology, Jewish and Christian: Biblical, Intertestamental, and Patristic Studies* (Leiden: Brill, 1996), 276–96.

<sup>68.</sup> Brown, Death of the Messiah, 2:1376 n. 54.

<sup>69.</sup> Beckwith, Calendar and Chronology, ch. 9, 281.

AD 26 Spring	<ul> <li>This is prior to Tiberius's 15th year, too early for any part of Jesus's ministry.</li> <li>14th of Nisan fell on Sunday, too early in week for the resurrection account.</li> </ul>
AD 27 Spring	<ul> <li>Too early for start of Jesus's ministry, Tiberius's 15th year begins in autumn.</li> <li>Too early to accommodate a two-year ministry model beginning at</li> </ul>
	Passover.
AD 28 Spring	<ul> <li>Probable start (not end) of Jesus's ministry at Passover in Tiberius's 15th year.</li> </ul>
	• 14th of Nisan fell on Tuesday, too early in week for resurrection account.
AD 29 Spring	<ul> <li>Too early to accommodate either a two-year or three-year ministry model.</li> </ul>
	<ul> <li>14th of Nisan fell on Sunday, too early in week for the resurrection account.</li> </ul>
AD 30 Spring	No disqualifying aspects in AD 30. 14th of Nisan fell on Thursday.
AD 31 * Spring	<ul> <li>Too late to accommodate a two-year ministry model beginning in AD 28.</li> <li>14th of Nisan fell on Tuesday, too early in week for the resurrection account.</li> </ul>
AD 32 *	• Too late to accommodate any ministry model that begins in AD 28.
Spring	<ul> <li>14th of Nisan fell on Sunday, too early in week for the resurrection account.</li> </ul>
AD 33 * Spring	<ul> <li>Too late to accommodate any ministry model that begins in AD 28.</li> <li>14th of Nisan fell of Friday, too late in week for three days of darkness.</li> </ul>
AD 34 * Spring	• Too late to accommodate any historical ministry or birth-year model for Jesus.
	<ul> <li>14th of Nisan fell on Wednesday, too early in week for resurrection account.</li> </ul>
AD 35 * Spring	<ul> <li>Too late to accommodate any historical ministry or birth year model for Jesus.</li> </ul>
	<ul> <li>14th of Nisan fell on Tuesday, too early in week for the resurrection account.</li> </ul>
AD 36 * Spring	• Too late to accommodate any historical ministry or birth year model for Jesus.
	<ul> <li>14th of Nisan fell on Saturday, too late in week for the resurrection account.</li> </ul>
~	

Year AD Aspects That Disqualify a Year for Jesus's Crucifixion / Resurrection

\* All years marked with an asterisk are too late to accommodate a 33-year life span for Jesus (see 3 Ne. 8:2), born no later than winter of 5/4 BC.

FIGURE 4. The year AD 30 as the only historical possibility for Jesus's death during Pilate's administration.

incorrectly by Jews in the time of Jesus and that therefore the days on which Passovers were celebrated would not necessarily be those calculated by modern astronomers,<sup>70</sup> alleging that "there was a tendency for witnesses to claim they had seen a new moon one day or potentially even two days early."71 In support, they cite an article entitled "Lunar Crescent Visibility" by LeRoy E. Doggett and Bradley E. Schaefer.<sup>72</sup> However, that study was based on an aggregate of modern new moon sightings by volunteer associates in planned observations between 1987 and 1990 at sites almost exclusively in the western hemisphere. But modern lunar observations alone cannot demonstrate that anciently there was any tendency for mistaken sightings. Nor did Doggett and Schaefer use ancient Jewish models in their study; in fact, they acknowledge that they are not even aware of Jewish methods.<sup>73</sup> None of the modern sightings in their study was made at or anywhere near Jerusalem. There is no aspect of the study of Doggett and Schaefer that can be reliably applied to the subject of how Jews in Judea of the first century AD sighted new moons and pronounced their new months.<sup>74</sup>

Reports of alleged Jewish calendar errors in the fourth century AD, three centuries after the time of Christ, are cited by Blumell and Wayment as evidence that Passover was celebrated a day or two off from the proper date, but these are garnered from Byzantine sources hostile to Jewish practice, a bias that makes their reliability questionable. In any case, they are inapplicable in assessing the findings of Humphreys and Waddington. One citation is quoted from Constantine at the Council of Nicea, alleging that Jews erred in their Passover dating and also celebrated Passover on two different days.<sup>75</sup> However, celebrating consecutive first days and second days of Passover was a common practice among Jews outside the land of Israel, well documented in the Mishnah.<sup>76</sup> This was a diaspora convenience, and no indication exists

<sup>70.</sup> See Blumell and Wayment, "When Was Jesus Born?" 66–70, for their entire argument.

<sup>71.</sup> Blumell and Wayment, "When Was Jesus Born?" 68.

<sup>72.</sup> LeRoy E. Doggett and Bradley E. Schaefer, "Lunar Crescent Visibility," *Icarus* 107 (1994): 388–403.

<sup>73.</sup> Dogget and Schaefer, "Lunar Crescent Visibility," 398.

<sup>74.</sup> See Blumell and Wayment, "When Was Jesus Born?" 67 and 68 n. 69 for the reference to Doggett and Schaefer.

<sup>75.</sup> Blumell and Wayment, "When Was Jesus Born?" 68-69.

<sup>76.</sup> See Steinsalz, *Talmud*, s.v. יום טוב שני של גלויות (yom tov sheni shel galuyot), 200.

that the calculation of the new moons was believed to be in error.<sup>77</sup> But this was not even Constantine's complaint. As Stern points out, the real issue discussed at Nicea was the charge that some fourth-century Jews were prone to celebrate Passover before the vernal equinox, while others celebrated it after the equinox.<sup>78</sup> In other words, Constantine was not complaining about Jews who got Passover wrong by a day or two, but by a whole month.<sup>79</sup> The question was not one of whether the new moon was correctly observed; rather it was a question of pre- or post-vernal equinox celebration of Passover. Thus, any use of this complaint about fourth-century Judean Jews somehow improperly identified their 14th of Nisan by one or two days is too problematic to be accepted.

The Mishnah is also cited by Blumell and Wayment to suggest that the new moon could be observed in error. They quote the first line of Rosh Hashanah 2:8, which reports that a chart of the phases of the moon was used by a first-century rabbi to aid in declaring the new moon. The rest of the passage relates that on one occasion the witnesses of the new moon accepted by the rabbinical court were wrong. Blumell and Wayment derive, from this single event, that false sightings must have been regularly accepted by the Jewish court. However, the Mishnah describes

<sup>77.</sup> The celebration of two consecutive days of Passover was a Jewish invention to aid diaspora Jews who might not receive news of the correct date in ancient Jerusalem. It was not because of any suspicion that the new moon had not been properly observed in Judea. Blumell and Wayment suggest that "celebrating it on back-to-back days" was "because they were unsure which day was truly Nisan 15 and by so celebrating it twice they would hope to get it right." "When Was Jesus Born?" 69. But this notion is unsupported and not true. The reference they offer (p. 80, n. 72) cites Stern, *Calendar and Community*, 80–84, which makes no mention of consecutive days of Passover being the issue raised by Byzantine sources in the fourth century.

<sup>78.</sup> Stern, Calendar and Community, 69.

<sup>79.</sup> Stern's own citations for this are themselves problematic—including hostile Byzantine sources and the characteristically cynical Beckwith. Stern, *Calendar and Community*, 69–70 and n. 74. But Stern correctly maintains that fourthcentury Jewish practice contrasted with first-century practice and explains that "in the times of Jesus the Jews observed the rule of the equinox." *Calendar and Community*, 71. Stern also cites a Byzantine source which stresses that some Jews of the fourth century were not even in compliance with "their own law as laid down by Philo, Josephus, and the other Hebrew sages" of the first century. *Calendar and Community*, 69. What all of these sources actually demonstrate is that Jewish method in the first century was different than in the fourth century.

only this single event, and there is no report of any similar error in the entire Talmud. The narrative is sufficiently important that we should examine it here. The account involves a ruling by Gamaliel II, also known as Rabban Gamaliel, who served as the *nasi* (president) of the Jewish rabbinical court and community in Judea in the generation after the destruction of Jerusalem (c. AD 80–110), whose headquarters were at Yavneh on Israel's coastal plain. The Mishnah passage from tractate Rosh Hashanah (see fig. 5) is the translation of Jacob Neusner,<sup>80</sup> with his peculiar spellings and his parenthetical additions in brackets, used here since it was the version quoted by Blumell and Wayment.

At least a dozen things about this passage are evident to a trained student of the Talmud: (1) Great care was taken to insure that a new month was properly proclaimed from the actual occurrence of the new moon. (2) A chart of the lunar phases was even employed by Rabban Gamaliel to determine if witnesses had actually observed the new moon. (3) Rabban Gamaliel erred on one occasion in accepting the incorrect early claim of a new moon sighting. (4) It was immediately recognized, by Rabbi Yohanan ben Nuri and Rabbi Dosa ben Harkinas, that the witnesses Rabban Gamliel relied upon were in error by a whole day. (5) Rabbi Joshua recognized the error pointed out by his two other colleagues. (6) The crux of the error was not the false claim by the witnesses, but Rabban Gamaliel's declaration of the new month on a clearly erroneous date. (7) Rabban Gamaliel insisted that Rabbi Joshua recognize his authority, ordering him to appear with staff and purse in hand (items not permitted for carrying on a Yom Tov Sabbath) on the day of the Yom Kippur fast (the 10th day of the month of Tishri) according to Rabbi Joshua's reckoning of when the month of Tishri should have started. (8) Rabbi Aqiba (a.k.a. Akiva) and Rabbi Dosa both supported Rabban Gamaliel's authority to declare the new month, even on the wrong day, and encouraged Rabbi Joshua to recognize that authority. (9) Rabbi Joshua instead went to Rabban Gamaliel, with staff and purse in hand, on the day of the Yom Kippur fast according to Rabban Gamaliel's declaration, which was actually the wrong day for the 10th of Tishri. (10) Instead of reprimanding him for violating a Yom Tov Sabbath and coming on a day other than the one he appointed, Rabban Gamaliel received Rabbi Joshua warmly, admitting that Rabbi Joshua was right, and was wiser than he, implicitly recognizing his own error. (11) Rabban Gamaliel also acknowledged that

<sup>80.</sup> Jacob Neusner, *The Mishnah: A New Translation* (New Haven: Yale University Press, 1988), Rosh Hashshanah 2:8–9.

### ROSH HASHSHANAH 2

**2:8 A.** A picture of the shapes of the moon did Rabban Gamaliel have on a tablet and on the wall of his upper room, which he would show ordinary folk, saying, "Did you see it like this or like that?"

**B.** Two witnesses came and said, "We saw it at dawn [on the morning of the twenty-ninth] in the east and at eve in the west."

C. Said R. Yohanan b. Nuri, "They are false witnesses."

**D.** Now when they came to Yabneh, Rabban Gamaliel accepted their testimony [assuming they erred at dawn].

E. And furthermore two came along and said, "We saw it at its proper time, but on the night of the added day it did not appear [to the court]."F. Then Rabban Gamaliel accepted their testimony.

G. Said R. Dosa b. Harkinas, "They are false witnesses.

**H.** "How can they testify that a woman has given birth, when, on the very next day, her stomach is still up there between her teeth [for there was no new moon!]?"

I. Said to him R Joshua, "I can see your position."

**2:9 A**. Said to him Rabban Gamaliel, "I decree that you come to me with your staff and purse on the Day of Atonement which is determined in accord with your reckoning."

B. R. Aqiba went and found him troubled.

**C.** He said to him, "I can provide grounds for showing that everything that Rabban Gamaliel has done is validly done, since it says, *These are the set feasts of the Lord, even holy convocations, which you shall proclaim* (Lev. 23:4). Whether they are in their proper time or not in their proper time, I have no set feasts but these [which you shall proclaim]. **D.** He came along to R. Dosa b. Harkinas.

E. He [Dosa] said to him, "now if we're going to take issue with the court of Rabban Gamaliel, we have to take issue with every single court which has come into being from the time of Moses to the present day, F. "since it says, *Then went up Moses and Aaron, Nadab and Abihu, and* 

seventy of the elders of Israel (Ex. 24:9).

**G.** "Now why have the names of the elders not been given? To teach that every group of three [elders] who came into being as a court of Israel—lo, they are equivalent to the court of Moses himself."

**H.** [Joshua] took his staff with his purse in his hand and went along to Yabneh, to Rabban Gamaliel, on the Day of Atonement which is determined in accord with his [Gamaliel's] reckoning.

I. Rabban Gamaliel stood up and kissed him on his head and said to him, "Come in peace, my master and my disciple—

J. "My master in wisdom, and my disciple in accepting my rulings."

FIGURE 5. The Mishnah: A New Translation by Jacob Neusner.

Rabbi Joshua's coming was a humble attempt to recognize the Rabban's authority, even in a wrong ruling. (12) This is the only recorded time in the entire Mishnah, comprising the era from the first century BC to the second century AD, that a new month had been declared in error.

Even though the declaration of the new moon was made by observation, and not by counting of the twenty-nine or thirty days since the previous new moon, it is clear that the Jews of the first century were counting those days, and knew when to expect the new moon-they knew that the new moon could not possibly occur any earlier than twenty-nine days since the previous new moon. Thus, a suggestion that the new moon could be erroneously declared two days early (twenty-eight days after the previous new moon), making their calendar that month off by two days, is hardly possible.<sup>81</sup> That Jews were aware of the only two days on which the new moon could appear, and that the beginning day of any new month was figured from the actual day on which the new moon appeared, even if the new moon had not been sighted, is clear from the two lines in the Mishnah immediately preceding the story of Rabban Gamaliel and Rabbi Joshua. It is declared in Rosh Hashanah 2 that the beginning of the new month was to be recognized and sanctified from the actual date of the new moon, whether that new moon appeared and was observed or not: "Whether it appears at the expected time or does not appear in the expected time, they sanctify it. R. Elazar b. R. Sadoq says, 'If it did not appear in its expected time, they do not sanctify it, for Heaven has already declared it sanctified'" (Rosh Hashanah 2:7).82

The reason for a new moon not appearing and being observed "in the expected time" would be that the sky was visually obscured during the night hours due to clouds or stormy weather. Even when that happened, however, the new moon not being observed did not result in the new month being declared early or late. The court would use their knowledge of the lunar phases (implied from the chart Rabban Gamaliel is said to have possessed) to correctly ascertain when the new moon had actually occurred, and from that date the new month would be sanctified and counted, and any festival that month would fall on its correct designated day. The *Yom Tov* festivals were commanded to begin on certain days of the month. Passover, for example, was to be on the 15th day of the month of Nisan, actually commencing at sunset after the 14th day of the month, when the full moon would be present.

<sup>81.</sup> See Blumell and Wayment, "When Was Jesus Born?" 68, 70.

<sup>82.</sup> Neusner, *Mishnah*, Rosh Hashanah 2:7C-D.

Failure to keep the Passover on the correct day, at the time of the full moon, was not theoretically excused by not having observed the new moon when it appeared two weeks earlier.

From the entire discussion above, it should be evident that great care was taken by Jews of the first century in declaring their new months from accurate observations and reckonings of the new moon. This demonstrates two things: First, that the chart in the article by Blumell and Wayment, portraying a broad span of four possible weekdays for the 14th of Nisan in any year from AD 27 to AD 34 is untenable.<sup>83</sup> And second, that the calculations of Humphreys and Waddington (see figs. 2 and 3 above) for the new moons and the 14th day of Nisan in those same years may be accepted as accurate and authoritative. This rules out any year but AD 30 as the year of Jesus's death.

### Crucifixion on the 14th or 15th of Nisan—a Gospel Discrepancy?

A well-known issue in studies of the four New Testament Gospels is the so-called discrepancy<sup>84</sup> between the three synoptic Gospels (Matthew, Mark, and Luke) and the Gospel of John with regard to the timing of Jesus's last Passover supper and the day of his death. Brown's treatment of this complicated matter surveys as much information and opinion on the issue as any source.<sup>85</sup> The problem arises because John clearly describes Jesus's crucifixion as having occurred on the "preparation of the passover" (John 19:14), which is the day of the 14th of Nisan, whereas Matthew, Mark, and Luke seem to describe Jesus's last Passover supper as having occurred on that day (see fig. 6). This leads some commentators to assume the three synoptic Gospel writers were describing Jesus's crucifixion as having occurred on the following day, on the 15th of Nisan.

<sup>83.</sup> See the chart in Blumell and Wayment, "When Was Jesus Born?" 70. Its four-day window for the 14th of Nisan in the years portrayed is without valid support, as is its allowance for the 14th to fall "up to two days early."

<sup>84.</sup> The issue is referred to as a "discrepancy" and also as a "discord" by Blumell and Wayment ("When Was Jesus Born?" 65, 77 n. 49), who fault "Dating the Birth of Jesus Christ" for not discussing "this discrepancy," since "Dating" consistently presents the crucifixion as having occurred on the 14th of Nisan. Neither do Blumell and Wayment discuss this issue: "The discord in the Gospels on this point will not be treated here" (77 n. 49). Although they present both the 14th and 15th of Nisan as days when the crucifixion could have occurred (66 and chart on 67), they ultimately focus on the 14th (70), as did "Dating the Birth of Jesus Christ," 15–16.

<sup>85.</sup> Brown, Death of the Messiah, 2:1361–69.

### Synoptic Gospel References suggesting that the 14th of Nisan (Passover preparation) was the day Jesus's last Passover supper was prepared.

Matthew 26:17 Now the first day of the feast of unleavened bread the disciples came to Jesus, saying unto him, Where wilt thou that we prepare for thee to eat the passover?

#### Mark 14:12

And the first day of unleavened bread, when they killed the passover, his disciples said unto him, Where wilt thou that we go and prepare that thou mayest eat the passover?

#### Luke 22:7-10

Then came the day of unleavened bread, when the passover must be killed.

And he sent Peter and John, saying Go and prepare us the passover, that we may eat.

And they said unto him, Where wilt thou that we prepare?

#### Luke 22:14-15

And when the hour was come, he sat down, and the twelve apostles with him.

And he said unto them, With desire I have desired to eat this passover with you before I suffer.

### Gospel of John References suggesting that the 14th of Nisan (Passover preparation) was the day of Jesus's crucifixion.

#### John 18:28

Then led they Jesus from Caiaphas unto the hall of judgment: and it was early; and they themselves went not into the judgment hall, lest they should be defiled; but that they might eat the passover.

#### John 19:14

And it was the preparation of the passover, and about the sixth hour: and he saith unto the Jews, Behold your King!

#### John 19:31

The Jews therefore, because it was the preparation, that the bodies should not remain upon the cross on the sabbath day, (for that sabbath day was an high day,) besought Pilate that their legs might be broken, and that they might be taken away.

#### John 19:41–42

Now in the place where he was crucified there was a garden; and in the garden a new sepulcher, wherein was never man yet laid.

There laid they Jesus therefore because of the Jews' preparation day; for the sepulcher was nigh at hand.

**FIGURE 6.** 14th of Nisan comparison in the synoptic Gospels and in the Gospel of John.



**FIGURE 7.** This medieval hall, known as the Coenaculum, is a second floor "upper room" built by the Crusaders in the likely location of the home in which Jesus had his last Passover supper with his Apostles. Photo by Jeffrey R. Chadwick.

So, either John's account is in conflict with that of Matthew, Mark, and Luke, or there is something else to be considered.

The most widely suggested solution to this conundrum is that two different Passover meals are described in the four Gospels as occurring during Jesus's final days—the official Passover of Nisan 14/15, recognized throughout Judea and alluded to in John's Gospel, and an unofficial Passover a day or two earlier, on which Jesus had his last supper. In other words, Jesus's last Passover supper did not take place on the official Judean date of Nisan 14/15, but a day or two prior, and the synoptic Gospels refer to the earlier date as "the first day of unleavened bread" (Mark 14:12) in order to support the legitimacy of Jesus celebrating the earlier Passover. Commentators have, over the years, suggested a number of models for a Passover held a day earlier than the official Jerusalem Passover, such as an earlier Passover celebrated by Galileans or by Pharisees or by diaspora Jews, but there is not a shred of historical evidence to support these inventions. As Brown observes, "We do not have any evidence for the celebration in Jerusalem of two adjacent days as Passover."<sup>86</sup>

The discovery of the Dead Sea Scrolls in 1947, however, revealed that Essene Jews, who observed the so-called Qumran calendar (or Essene calendar), usually celebrated Passover on another day than appointed on the official Judean calendar, unless the official date was a Wednesday.<sup>87</sup> The Essene adhered to an intercalated solar-lunar calendar, rather than the intercalated lunar-solar calendar of normative Judaism. The Qumran calendar was based on a 364-day solar year.88 It is unclear how the Essene dealt with the extra 1¼ days of the solar year, but they appear to have had a method. In the Qumran/Essene calendar, Passover (the 15th of Nisan) always fell on a Wednesday, with the Passover Seder meal always taking place Tuesday evening after sundown. The 14th of Nisan in the Qumran/Essene calendar was therefore always on Tuesday. Beginning with Annie Jaubert in 1957, a number of influential scholars, willing to break from tradition and consider options for Jesus's last Passover supper other than a Thursday night, have suggested that Jesus's early Passover meal took place on Tuesday evening.<sup>89</sup> Brown notes five such scholars, including the highly influential Eugen Ruckstuhl, in his description of the Tuesday evening Essene model for the last supper, although Brown himself ultimately rejects it.90 However, another influential Catholic scholar, Father Bargil Pixner of the Dormition Abbey in Jerusalem, whose background included decades of living in Israel and Jerusalem and studying the Jewish context of the

<sup>86.</sup> Brown, *Death of the Messiah*, 2:1365. For a short description of various early Passover suggestions, see pp. 2:1364–66.

<sup>87.</sup> For a comprehensive treatment of the Essene and the Dead Sea Scrolls, see Lawrence H. Schiffman, *Reclaiming the Dead Sea Scrolls* (New York: Doubleday, 1995).

<sup>88.</sup> On the solar nature of the Qumran calendar, see Schiffman, *Reclaiming the Dead Sea Scrolls*, 304–5, and Yigael Yadin, *The Temple Scroll: The Hidden Law of the Dead Sea Sect* (London: Weidenfeld and Nicholson, 1985), 84–87.

<sup>89.</sup> See Annie Jaubert, *La Date de la Cène* (Paris: Gabalda, 1957), and its English translation, *The Date of the Last Supper* (New York: Alba House, 1965).

<sup>90.</sup> See Eugen Ruckstuhl, *Die Chronologie des letzten Mahles und des Leidens Jesu* (The Chronology of the Last Supper and the Suffering of Jesus) (Einsiedeln: Benziger, 1963). See also Brown, *Death of the Messiah*, 2:1366 for other names, and 2:1368 for his rejection.

New Testament, broke with tradition and endorsed the Tuesday evening model in his 1996 book *With Jesus in Jerusalem*.<sup>91</sup>

Those who suggest that Jesus celebrated his last Passover supper on Tuesday evening are divided as to whether he observed the Essene calendar as a rule or only as an exception on that one occasion.<sup>92</sup> It seems to me that the doctrines and practices of the Essene were so dissimilar to those of Jesus and his followers that he would not have normally observed their alternative calendar.93 However, that Jesus would, for his own convenience and security, hold his own early Passover meal on a Tuesday night when Essene Jews in Jerusalem would also be doing so, thus not attracting undue suspicion or attention to his own gathering, seems both logical and likely. And that the synoptic Gospel writers would refer to that Tuesday as the "first day of unleavened bread" seems appropriate-it portrayed Jesus's regard for his last supper as a genuine Passover experience, even though it did not occur on the official date. The Tuesday night Last Supper model solves virtually every problem connected with the issue of the two Passovers the Gospels mention regarding Jesus's final days. Additionally, a Tuesday night at Gethsemane allows for adequate time between the events of Jesus's arrest and crucifixion for his morning Sanhedrin trial, his transfer to Pilate, his interview with Pilate, his transfer to Herod, his interview with Herod, his transfer back to Pilate, his ultimate sentencing and display by Pilate, and his beatings, all of which are impossible to compress into the early hours of a single morning in the traditional model.

The Tuesday model for the Last Supper, occurring on a day prior to the official 14th of Nisan, leaves John's report of Jesus's execution on the 14th of Nisan as the correct dating of the crucifixion. But there are also elements of the trial, sentencing, and crucifixion reports in the three synoptic Gospels that suggest they are not actually portraying the events to have happened on the official 15th of Nisan. Here are half a dozen examples:

<sup>91.</sup> Bargil Pixner, *With Jesus in Jerusalem: His First and Last Days in Judea* (Rosh Pina, Israel: Corazin Publishing, 1996), 83–100.

<sup>92.</sup> For examples of other Essene involvement in the narratives of the New Testament Gospels, see the discussion by Chadwick in "The Jerusalem Temple, the Sadducees, and the Opposition to Jesus," 65–69.

<sup>93.</sup> On dissimilarities between Jesus's teachings and those of the Essene, see D. Kelly Ogden and Jeffrey R. Chadwick, *The Holy Land: A Geographical, Historical, and Archaeological Guide to the Land of the Bible* (Jerusalem: HaMakor, 1990), 315.

- 1. The trial and sentencing of Jesus by the Sanhedrin (see Matt. 27:1, Mark 15:1, Luke 22:66) would surely not have occurred on the 15th of Nisan, on the *Yom Tov* festival day—such activities would violate the Law of Moses and the sanctity of the festival, which was considered a Sabbath, and would have been invalid under any existing interpretation of Judean law. Geza Vermes, a respected scholar of the New Testament in its Judean context, succinctly states that "Jewish courts did not sit, investigate or pronounce sentence on a feast-day or a Sabbath."<sup>94</sup>
- 2. On the day of the execution, Pilate sought to release Jesus as a goodwill gesture for the Passover festival, but instead released Barabbas (see Matt. 27:15–24, Mark 15:6–15, Luke 23:16–24). The release would surely not have been proposed or carried out on the 15th of Nisan, nor would the chief priest and the crowd of supporters have gathered on a *Yom Tov* festival day to demand the release. Rather, these events suggest a context on the 14th of Nisan, just in advance of the festival and in time for the Seder supper that evening.
- 3. Simon the Cyrenian is said to have been "coming out of the country" when he was pressed to carry Jesus's cross (Mark 15:21, Luke 23:26). This would surely not have happened on the 15th of Nisan, because Simon, and any other Jew coming to Jerusalem, would have been traveling to arrive prior to the beginning of the festival. And, if he were late, he would surely not have been traveling on the festival day itself. Rather, this event is also best placed in the context of the 14th of Nisan.
- 4. Crowds are depicted as passing by the execution site and insulting Jesus while he was on the cross (Matt. 27:39–40, Mark 15:29–30) and also as having accompanied him in sorrow on the way to the

<sup>94.</sup> See the discussion in Geza Vermes, *Who's Who in the Age of Jesus* (New York: Penguin, 2006), 135–36, cited in Charlesworth, "Historical Jesus in the Fourth Gospel," 10. I note here that Charlesworth maintains that Jesus was interrogated after his arrest, but that no trial was actually held. However, the references in the synoptic Gospels to the Sadducean chief priests (plural), the council (Sanhedrin), witnesses, and pronunciation of guilt (see Matt. 26:59–60, 65–66; Mark 14:55–56, 63–64; Luke 22:66, 71) all convince me that a bona fide trial of Jesus was indeed conducted before a minimum quorum "small Sanhedrin" of twenty-three members (all Sadducees except for Joseph of Arimathea) after daybreak on the morning following Jesus's arrest (see Luke 22:66).

site (Luke 23:27–28). Such activity would have violated the sanctity of the *Yom Tov* festival, which was considered a Sabbath and, especially in the case of the Matthew and Mark accounts, would have been unlikely to occur on the 15th of Nisan.

- 5. The burial of Jesus's deceased body, depicted as occurring prior to sundown (see Matt. 27:59–60, Mark 15:46, Luke 23:53), would surely not have been carried out on the 15th of Nisan. Any event or action considered tragic or unhappy was forbidden on a *Yom Tov* festival day, which was considered a Sabbath and was a day on which only rejoicing was permitted. In any case, a burial was not to be carried out on such a festival or on the Saturday Sabbath.
- 6. Although it may seem superfluous to mention, an execution would surely not have been carried out on the 15th of Nisan! It is inconceivable that a crucifixion would be carried out by Pilate on a *Yom Tov* festival, or for that matter even on a Saturday Sabbath. Pilate, who was clearly desirous of keeping peace among the Jews (not only the Sadducean chief priests and their elders, but also the tens of thousands gathered to Jerusalem for the festival), would simply not have risked violating the sanctity of the festival by carrying out a public execution on that day. The riots that surely would have ensued would also have been impossible to control. The crucifixion clearly has to have occurred prior to the onset of the *Yom Tov* day, which means that it has to have taken place on the 14th of Nisan.

That Matthew, Mark, and Luke, in fact, do not really depict a crucifixion on the 15th of Nisan then raises the question of why the three Gospel writers did not declare that the day of the execution was the 14th of Nisan. They could have easily done this, for example, by specifying (as in John 19:14) that it was the "preparation of the Passover." While my suggestion for an answer to this is not to be demanded, I think it is possible that Matthew, Mark, and Luke (whose Gospels are often interdependent in terms of factual information) avoided specifying that it was the official Passover preparation because they had designated the day of Jesus's last supper as a Passover preparation. Whether through a desire not to be repetitious or confusing, or merely wanting to focus attention on Jesus's last supper as a legitimate Passover experience, I believe they simply decided to feature only one Passover preparation in their narratives. On the other hand, John did not specify Jesus's last supper as a Passover meal, perhaps for a different but related reason-to focus attention on the fact that Jesus's death, which John understood to be

symbolized by the killing of Passover lambs, had indeed occurred on the official preparation day of Passover, when the lambs of the feast were sacrificed. Caution must be taken in imputing complicated motives to the four Gospel writers, so I offer these possibilities only as suggestions. What remains clear, however, is that both John and the synoptic Gospels present numerous factual elements that can only be construed as pointing to the official Judean 14th of Nisan as the day of Jesus's execution. The reluctance of New Testament scholarly consensus to recognize this notwithstanding, there is no real discrepancy between the synoptic Gospels and John with regard to the day of the crucifixion.

As a final note in this section, it is also apparent that the Gospel of John, which portrays Jesus's crucifixion on the official 14th of Nisan, also portrays Jesus's last supper as occurring prior to that day. When, in the middle of the meal, Judas leaves the group, some of the Apostles thought he was going out to purchase things needed for the festival (see John 13:29). This would be inconceivable on the official night of the Passover Seder—no markets would have been open, the whole city and thousands of surrounding family camps outside the walls would have been in the middle of their own Seder meals, and in any case the evening would have been considered a festival Sabbath, when buying or selling was forbidden. Clearly, even John depicts Jesus's last Passover supper as having occurred on a night prior to the official 14th of Nisan.

And what was that night? When all the scriptural, historical, and even archaeological evidence is considered (archaeology is included, since that field of study is an aspect of the Qumran discoveries)—that Jesus celebrated his last Passover supper on Tuesday evening is the only realistic solution to the New Testament's two-Passover conundrum. Tuesday evening is the only option that has both historical and contextual evidence of first-century Judean society to support it. And because it is sound and logical, a Tuesday Last Supper is the model I suggest as reality and also present as a valid consideration to my students (see fig. 8).

A small number of New Testament scholars have suggested that the crucifixion took place on a Thursday (Brown refers to them as "a few dissenters"),<sup>95</sup> but the overwhelming majority of New Testament commentators are strongly committed to the model of Byzantine origin—the traditional Good Friday—as the day of crucifixion, perhaps more so than to any other aspect of the accounts of Jesus's passion. Two issues,

<sup>95.</sup> Brown notes Hoehner as listing B. F. Westcott, J. K. Aldrich, and R. Rush as among the dissenters. See Brown, *Death of the Messiah*, 2:1351.

Sunday	Monday	Tueday	Wednesday	Thursday	Friday	Saturday	Sunday
Jesus's mes- sianic parade into Jerusalem.	Jesus's curse of a fig tree that died	Peter and John go to prepare a Passover.	Jesus's trial conducted by the high priest.	Passover Preparation. Jesus is sen-	Official day of Passover Festival.	Weekly day of Sabbath.	Jesus is resurrected.
He cleanses	instantly.	Jesus eats	Jesus taken	tenced by Pilate.	[1st Day]	[2nd Day]	[3rd Day]
the temple, teaches the	Final day teaching at	his last Pass- over supper	to Pilate, sent to Herod, and	Crucifixion	Jesus's body in	Jesus's body in	
crowds, and	the temple and	with Apostles.	then back to		the tomb.	the tomb.	
returns to Bethany.	on the Mount of Olives.	Arrest at Gethsemane.	Pilate.	Jesus's body is buried prior to			
				sunset. [ <i>Night #1</i> ]	[ <i>Night #2</i> ]	[ <i>Night #3</i> ]	
10 Nisan	11 Nisan	12 Nisan	13 Nisan	14 Nisan	15 Nisan	16 Nisan	17 Nisan
Ess. 12 Nisan	Ess. 13 Nisan	Ess. 14 Nisan	Ess. 15 Nisan	Ess. 16 Nisan	Ess. 17 Nisan	Ess. 18 Nisan	Ess. 19 Nisan
April 2, AD 30	April 3, AD 30	April 4, AD 30	April 5, AD 30	April 6, AD 30	April 7, AD 30	April 8, AD 30	April 9, AD 30

FIGURE 8. The final week of the life of Jesus, April AD 30 (Julian calendar dates) © Jeffrey R. Chadwick. Bold Nisan dates are official Judean lunar-solar calendar dates. "Ess." indicates Essene calendar dates.

### 174 ~ BYU Studies Quarterly

Statement of Length	References	Speaker /	/ Nature
"the third day″ τη τριτη ημερα	Matthew 16:21; 17:22; 20:19 Mark 9:31; 10:34 Luke 9:22; 18:33	Jesus "	prediction " "
"today is the third day since" τριτην ταυτην ημεραν αγει σημερον	Luke 24:21	Cleopas	report
"three days and three nights" τρεις ημερας και τρεις νυκτας	Matthew 12:40	Jesus	prediction
"after three days″ μετα τρεις ημερας	Mark 8:31 Matthew 27:63	Jesus Jesus's er ing him	prediction nemies quot-
"in three days" εν τρισιν ημεραις	John 2:19	Jesus	prediction

**FIGURE 9.** Statements in the four Gospels about the length of time between the crucifixion and the resurrection. Quotations from the King James Version are reliable, accurate translations of the provided Greek originals.

imbedded within the texts of the four Gospels, are key to identifying the weekday of Jesus's death: (1) statements about the length of time from the execution to the resurrection, and (2) statements about the cruci-fixion having occurred on a preparation day prior to a Sabbath. We will examine these in order.

There are twelve passages in the four Gospels that refer to the length of time between Jesus's death and resurrection. These are displayed in figure 9. Eleven of these statements are predictions made by Jesus well prior to his execution. Only one, the statement made by Cleopas<sup>96</sup> in Luke 24, is a direct report of the time that actually passed between the

<sup>96.</sup> In Luke 24:19, the statement is actually attributed to both Cleopas and his unnamed companion on the road to Emmaus. The identity of that companion is generally disputed by most modern scholars, although traditional commentary suggests Luke himself as Cleopas's companion, which is also my preference. The intimacy and detail of the distinct narrative support it as an eyewitness account by the Gospel author and one that is completely reliable in terms of the quotations. Although the LDS Bible Dictionary characterizes the identification of Luke as the other disciple on the road to Emmaus as "picturesque but historically unsupported" (LDS Bible Dictionary, 726, "Luke"), Bruce R. McConkie took the very certain position that Cleopas's companion was "undoubtedly Luke." See McConkie, *Mortal Messiah*, 275, which in turn cites Alfred Edersheim, *The Life and Times of Jesus the Messiah*, 2 vols. (1883; Grand Rapids, Mich.: Eerdmans, 1971), 2:638.

crucifixion and the Sunday of Jesus's rising. This statement is the single most important piece of evidence in identifying the day on which Jesus died, since it was originally expressed only after, and directly after, both the crucifixion and the resurrection had occurred. Speaking on Sunday afternoon and having explained how Jesus was executed, Cleopas reported that "today is the third day since these things were done" (Luke 24:21). The King James Version translation of this passage very accurately represents the tense and timing of the Greek original. And the timing is clear: Sunday being the third day *since* the crucifixion, Saturday would have been the second day *since* the crucifixion, and Friday would have been the first day *since* the crucifixion, meaning that Cleopas was referring to the execution as having occurred on Thursday.

Of the eleven predictive statements by Jesus, seven feature the same timing phrase as the report of Cleopas, that Jesus would rise on "the third day" (Matt. 16:21; 17:23; 20:19; Mark 9:31; 10:34; Luke 9:22; 18:33). These references must be understood in light of the report of Cleopas, that is to say, these passages should clearly also be taken as referring to Jesus rising on the third day *since* (meaning "after") the crucifixion, and that the crucifixion thus occurred on Thursday. Many commentaries, of course, claim that Friday was both the day of the crucifixion and the first day of the three-day count, but because of these other considerations, support for that calculation is weak. The several "third day" predictions were all recorded by the synoptic Gospel writers years after the resurrection occurred and years after the report of Cleopas would have been common knowledge to informed disciples of Jesus throughout the church. In particular, Luke, who recorded two "third day" predictions as well as his quotation of the report of Cleopas, must certainly have understood the "third day" of the predictions to be the same as the "third day" of his own narrative in Luke 24. All eight of the "third day" Gospel passages, including Cleopas's report, may be considered as indicating that Jesus's crucifixion was on Thursday.

As for the other predictions, the single reference in John is unique in that Jesus did not overtly refer to his own death, but rather to a theoretical destruction of the temple "in three days" (John 2:19), which John then says the disciples later understood as a prediction of Jesus's death and resurrection. And the Matthew 27 reference is different from the rest in that it represents Jesus's enemies quoting his prediction that he would rise "after three days" (Matt. 27:63), although Mark also attributes the same phrase and prediction directly to Jesus (see Mark 8:31). Timing Jesus's resurrection on Sunday as "*after* three days" would be impossible to reconcile with a Friday crucifixion (even if Friday were considered the first day of the count) and could only work with a Thursday crucifixion if Thursday were counted as the first day.

Besides the very clear report of Cleopas, the declaration by Jesus in Matthew 12 gives another quite specific timing indicator that points to Thursday as the day of crucifixion. In that passage, Jesus said, "For as Jonas was three days and three nights in the whale's belly; so shall the Son of man be three days and three nights in the heart of the earth" (Matt. 12:40). In a note to my 2010 study, I explained, "A Friday crucifixion allows for the counting of three days, if one includes Friday, Saturday, and Sunday in the count, but cannot accommodate three nights, since only Friday night and Saturday night would have passed before dawn on Sunday. A Thursday crucifixion, however, allows for three nights to have passed prior to the Resurrection on Sunday morning, as well as something closer to three real days."<sup>97</sup>

In response to this note, Blumell and Wayment took the position that "since Matthew 12:40 is a partial quote of Jonah 1:17 (LXX Jonah 2:1), wherein it was reported that Jonah was 'in the belly of the fish three days and three nights,' the reference here need not be pushed so hard that the actual timing has to be taken literally."98 They refer to Krister Stendahl's study of Old Testament passages in Matthew<sup>99</sup> and assert that "Matthew's Gospel had a tendency to find any reference in the Old Testament that might relate to Jesus and cite it, whether or not it was a perfect fit."<sup>100</sup> Stendahl's approach notwithstanding, it must be recognized that Jesus's prophecy was not about the story of Jonah. It was given specifically to declare the length of time he would spend in the grave. Even if the Jonah passage had not been referred to at all, the actual length-of-time statement Jesus made would remain, by itself, as a clear and precise prediction: "The Son of man shall be three days and three nights in the heart of the earth." Jesus said these words not to elaborate on the story of Jonah (the tale is not mentioned again in any Gospel passage) but to make a succinct point about his own death and the length of time that would pass until his resurrection. Though some New Testament literary scholars attempt to explain away Jesus's declaration in Matthew 12:40 as a

<sup>97.</sup> Chadwick, "Dating the Birth of Jesus Christ," 33 n. 44.

<sup>98.</sup> Blumell and Wayment, "When Was Jesus Born?" 79 n. 56.

<sup>99.</sup> Krister Stendahl, *The School of St. Matthew and Its Use of the Old Testament* (Philadelphia: Fortress Press, 1968).

<sup>100.</sup> Blumell and Wayment, "When Was Jesus Born?" 79 n. 56.

### Synoptic Gospel References featuring the term "preparation" (paraskeué)

Matthew 27:62

Now the next day, that followed the day of the preparation, the chief priests and Pharisees came together unto Pilate.

#### Mark 15:42

And now when the even was come, because it was the preparation, that is, the day before the sabbath.

### Luke 23:54-56

And that day was the preparation, and the Sabbath drew on.

And they returned, and prepared spices and ointments; and rested the sabbath day according to the commandment.

### Gospel of John References featuring the term "preparation" (*paraskeué*)

John 19:14

And it was the preparation of the passover, and about the sixth hour: and he saith unto the Jews, Behold your King!

#### John 19:31

The Jews therefore, because it was the preparation, that the bodies should not remain upon the cross on the sabbath day, (for that sabbath day was an high day,) besought Pilate that their legs might be broken, and that they might be taken away.

#### John 19:41–42

Now in the place where he was crucified there was a garden; and in the garden a new sepulcher, wherein was never man yet laid.

There laid they Jesus therefore because of the Jews' preparation day; for the sepulcher was nigh at hand.

FIGURE 10. "Preparation" (*paraskeué*) passages in the synoptic Gospels and the Gospel of John.

mere imprecise metaphor that relies on the timing in Jonah, the prediction in the passage stands solidly on its own, declaring that Jesus would, after his death, be in a tomb for three nights as well as three days. And, like the report of Cleopas, this clearly indicates a Thursday crucifixion.

# "That Sabbath Day Was an High Day"

In the four Gospels, there are six passages about the crucifixion having occurred on a day of "preparation" (Greek  $\pi\alpha\rho\alpha\kappa\epsilon\nu\eta$ —*paraskeué*) prior to a Sabbath (see fig. 10). Matthew, Mark, and Luke each contain one passage, and the Gospel of John contains three (which were already alluded to above; see fig. 6).

As far as the references to the "preparation" in the three synoptic Gospels are concerned, combined they actually represent only one report tradition. As already mentioned, the narratives in the synoptics are highly interdependent, and traditional scholarship holds (probably correctly) that they rely on a single source for many elements, including aspects of the crucifixion account. Many scholars point to the Mark account as the original source from which Matthew and Luke copy in this particular instance,<sup>101</sup> but some highly respected scholars, such as Flusser, suggest the Luke account is the most authentic source, preserving the original tradition of Jesus's life.<sup>102</sup> In any case, the synoptic accounts must be considered as a single report tradition, leaving the narrative in John as the second unique witness describing the crucifixion on the "preparation" day.

In the historical descriptions preserved by the fourth-century Church historian Eusebius, as well as in most scholarly assessment, the Gospel of John was reported to have been composed decades after the synoptic Gospels. The dating of the synoptics is a debated issue, but most authorities place them at least twenty to forty years before John was written, and in some cases as much as fifty. Without arguing the exact date of the Gospels of Matthew or Mark or Luke, the point is that John wrote his Gospel at Ephesus around AD 100,<sup>103</sup> long after the others, and that he was aware both of the other Gospels and of their ultimate original sources.<sup>104</sup> John even seems to have included information in his own Gospel that would clarify certain issues in the earlier Gospels.<sup>105</sup> And when John spoke of the "preparation" day on which Jesus was crucified, he not only mentioned it three times, but he included two explanations

<sup>101.</sup> See Bruce, *New Testament Documents*, 30–38, for a succinct summary of the theory of Markan priority among the synoptic Gospels.

<sup>102.</sup> See Davie Flusser, *Jesus* (Jerusalem: Hebrew University Magnes Press, 2001), 21–22, for the assessment that Luke preserves the original literary tradition of Jesus's life, especially in tandem with Matthew.

<sup>103.</sup> On the dating of the composition of the four Gospels, see the summary in Bruce, *New Testament Documents*, 6–15, and on the dating of John, see page 12.

<sup>104.</sup> On John's Gospel being aware of other Gospels and sources, see the lengthy discussion in Charlesworth, "Historical Jesus in the Fourth Gospel," 34-46.

<sup>105.</sup> Several instances exist where the Gospel of John clarifies issues or events presented in the synoptic Gospels. One example is found in John 4:43–54, which reports Jesus's initial ministry activities in the Galilee and recounts how Jesus, while in Cana, healed a boy a great distance away in Capernaum. This passage clarifies a report in Luke 4:14–30, where Jesus was challenged in Nazareth to do there "whatsoever we have heard done in Capernaum" (Luke 4:23). The Luke account does not explain what was done in Capernaum, therefore the John account of the boy healed at Capernaum, written decades after Luke, adds clarity by giving details of the event alluded to but not explained in Luke.

to clarify the kind of Sabbath on which the preparation was occurring. John 19:14 very specifically indicated that the day on which Jesus died was "the preparation of the Passover." This is absolutely straightforward and appears intentional, and the two subsequent references to the "preparation" in John 19:31 and 19:42 must be considered in this regard.

In John 19:31 particularly, where John mentions both the "preparation" and its "sabbath," it is quite clear that the Sabbath he was referring to was the festival Sabbath (that is, Passover), since he distinctly explained "that sabbath day was an high day." The King James Version phrase "an high day" is the translation of the Greek phrase *megalē hē hēmera* ( $\mu\epsilon\gamma \alpha\lambda\eta \eta$   $\eta\mu\epsilon\rho\alpha$ ), literally "a great day."<sup>106</sup> New Testament commentaries in general do not provide any clarity on this term or any satisfactory interpretation of what it means in John 19:31.<sup>107</sup> However, the phrase seems clearly to be John's attempt in Greek to express the Hebrew term *Yom Tov*, which, as mentioned earlier, is a specific Jewish reference to a high festival day such as Passover. John 19:31 is actually saying that the Sabbath preparation day on which Jesus was crucified was a *Yom Tov* festival Sabbath.<sup>108</sup> Again,

108. This idea was introduced in my 2010 study, although the Jewish Hebrew term *Yom Tov* was not mentioned as the inspiration for the phrase "an high day" in John 19:31. See Chadwick, "Dating the Birth of Jesus Christ," 33 n. 42. Blumell and Wayment subsequently disputed the whole idea that "high day" refers to the Passover in John 19, maintaining "there is absolutely no evidence that the

<sup>106.</sup> The "high day" or "great day" (*megalē hē hēmera*) of John 19:31 is not to be confused with the KJV phrase "great *day* of the feast" in John 7:37, an error made by Brown in *Death of the Messiah*, 2:1174 n. 81. The Greek phrase in John 7:37 is *megale tes eortes* (literally "the great of the festival"—the word *day* does not appear in the Greek), which represents the Jewish Hebrew term *rabba*, a reference to *Hoshannah Rabba*, the final day of Sukkot (the Feast of Tabernacles).

<sup>107.</sup> New Testament commentaries in general offer no logical or realistic explanation for the "high day" or "great day" (*megalē hē hēmera*) of John 19:31. Bruce, for example, suggests only that it indicated "in that year the Passover coincided with the weekly Sabbath." See Bruce, *Gospel of John*, 374. And while Brown, in *Death of the Messiah*, 2:1174, says that "the seemingly more important fact that the next day was Passover is echoed only in the statement 'that Sabbath was a great day," this is no clear explanation. Perhaps the best effort is Brown's rendition of *megalē hē hēmera* as "a solemn feast day" in his *Anchor Bible Series* translation of John, but this is not followed up by any clarifying explanation in the accompanying notes or comments. See Raymond E. Brown, *The Anchor Bible: The Gospel According to John XIII–XXI*, vol. 29A (Garden City, N.Y.: Doubleday, 1970), 932 (John XIX:31), also 933 (Notes) and 944 (Comment).

John was clarifying an issue that was not clear in the synoptic Gospels, where the day on which Jesus was executed is only said to have been the preparation of a Sabbath, and where the day following Jesus's execution is referred to as a Passover only by implication. John makes it clear that Jesus was crucified on the preparation day for Passover, and also makes clear that the Sabbath day following Jesus's death was a *Yom Tov* ("high day") festival Sabbath rather than a weekly Saturday Sabbath.<sup>109</sup>

It is well known by informed students of Jewish studies that there were two types of Sabbaths in the second temple period, at the time of Jesus, as there still are in Judaism today: (1) the weekly seventh-day Sabbath on Saturday and (2) the *Yom Tov* festival Sabbath, which can occur on any weekday. This reality is reflected in the book of Leviticus, as I explained earlier. A New Testament example of this reality was the unnamed festival of John 5, which is referred to as a Sabbath, but which is impossible to have fallen on a Saturday if it is modeled as a Passover, and

109. It is, admittedly, quite remarkable that there is not a single New Testament commentary in existence that recognizes or discusses the "high day" (*megalē hē hēmera*) of John 19:31 as a "rendition" of the Jewish Hebrew term *Yom Tov.* In this regard, the present study is, also admittedly, breaking new ground.

Passover was ever called 'an high day' or High Sabbath when it occurred on any day of the week besides the actual day of Sabbath (Saturday)." See Blumell and Wayment, "When Was Jesus Born?" 66. In their accompanying endnote 55 on page 79, Blumell and Wayment exclaim, "This designation (High Sabbath) is without precedent in Jewish literature," citing Israel Abrahams's discussion in Studies in Pharisaism and the Gospels, 2 vols. (New York: KTAV reprint, 1967), 2:68, a source also mentioned in Brown, Death of the Messiah, 2:1174 n. 81. However, in that study, Abrahams says nothing of the sort. Further, Abrahams's discussion actually regards an account known as the Martyrdom of Polycarp, the earliest known source of which is the fourth century AD Ecclesiastical History of Eusebius. Abrahams notes the Greek term sabbatou megalou (σαββάτου  $\mu\epsilon\gamma\dot{\alpha}\lambda\sigma\nu$ ), meaning "great sabbath," as the day on which Polycarp was put to death, and then discusses possible dating and interpretations of the phrase. However, Abrahams made a serious mistake in saying, "The only argument in favour of an early date is its occurrence in John xix.31." Abrahams, Studies in Pharisaism, 2:68. Abrahams's error is that the phrase sabbatou megalou ("great Sabbath") does not occur at all in John 19:31, rather, the phrase in John 19:31 is megalē hē hēmera. Abrahams's mistake is unfortunate, and the unrecognized use of his false comparison by Blumell and Wayment represents a serious failure in their discussion. The attempt to turn the "high day" of John 19:31 into the "High Sabbath" or "great Sabbath" of the Martyrdom of Polycarp is an error that must be rejected.

unlikely to have been a Saturday when modeled as Rosh Hashanah.<sup>110</sup> The Sabbath day following Jesus's execution is referred to as a Passover, by implication in the synoptic Gospels and in direct terms in the Gospel

110. It is highly unlikely that the Sabbath spoken of in John 5, which was a festival day, fell on a Saturday Sabbath. As the chart below demonstrates, if the Passover of John 19 is modeled as a Saturday (as per conventional tradition), and if the festival of John 5 is modeled as a Passover (as in the three-year model), counting back two exact lunar years (708 days) from the John 19 Passover would place the John 5 festival Sabbath on a Friday. But if a second month of Adar had occurred in between the two festivals, the John 5 event would have been on a Thursday or Wednesday (depending on whether the second Adar had lasted twenty-nine or thirty days). On the other hand, if the John 5 festival Sabbath is modeled as Rosh Hashanah (as in the two-year model), then the count backward would have been eighteen lunar months and fifteen days, and the corresponding weekday would have been a Saturday only if there had not been a second Adar during Jesus's ministry; otherwise the John 5 festival would have fallen on Friday or Thursday. And, since Passover in AD 30 fell at the end of the first week of April, it is highly likely that there had indeed been a second month of Adar proclaimed the year previous, in the early spring of AD 29, which would then point to a Friday or Thursday for the festival of John 5 at Rosh Hashanah in AD 28, further diminishing the possibility that the festival fell on a Saturday. The chart below displays these variables, figured for both a Saturday and a Friday model of the John 19 Passover. And in only one case (a much less likely case) would the John 5 festival have fallen on a Saturday Sabbath. All possible variables considered, the likelihood is that the John 5 festival Sabbath indeed occurred on a day other than Saturday.

John 19 Passover modeled as	John 5 festi- val modeled as	Days John 5 was prior to John 19	Days prior with a 2nd Adar of 29 days	Days prior with a 2nd Adar of 30 days
Saturday (traditional)	Passover (3-year model)	708 days prior— Day = <b>Friday</b>	737 days prior— Day = <b>Thursday</b>	738 days prior— Day = <b>Wednesday</b>
Saturday (traditional)	Rosh Hashanah (2-year model)	546 days prior— Day = <b>Saturday</b>	575 days prior— Day = <b>Friday</b>	576 days prior— Day = <b>Thursday</b>
Friday (alternative)	Passover (3-year model)	708 days prior— Day = <b>Thursday</b>	737 days prior— Day = <b>Wednesday</b>	738 days prior— Day = <b>Tuesday</b>
Friday (per this study)	Rosh Hashanah (2-year model)	546 days prior— Day = <b>Friday</b>	575 days prior— Day = <b>Thursday</b>	576 days prior— Day = <b>Wednesday</b>

of John, but it was a *Yom Tov* festival Sabbath that fell on a Friday, not a weekly Saturday Sabbath.

The notion that Jesus died on a Friday preparation for a Saturday Sabbath is incompatible with the report of Cleopas in Luke 24, where it is clear that Jesus was executed on a Thursday. In my opinion, John was aware of this potential disconnect and purposefully crafted his own report in John 19 to clarify the story presented in the synoptic Gospels, in an attempt to assure that later readers would understand Jesus had not died on a Friday preparation day prior to a Saturday Sabbath, as might be inferred from the imprecise references in the synoptics, but on a Thursday Passover preparation day prior to a Friday Passover that was also a *Yom Tov* festival Sabbath. That gentile Christians in subsequent centuries failed to appreciate how *megalē hē hēmera* ("an high day") meant a *Yom Tov* festival Sabbath and also failed to consider John's reference to the "preparation of the Passover" (John 19:14) in its correct context is a curious failure of religious history, probably due to the general gentile unfamiliarity with Jewish terminology.

John's careful clarification of the preparation day for the *Yom Tov* ("high day") Passover festival Sabbath as the day of Jesus's death, rather than a preparation day for a Saturday Sabbath, paired with the specific report of Luke and Cleopas that the Sunday of the resurrection was the third day since Jesus had been executed, and added to the very specific prophecy of Jesus that he would be in the grave for three days and three nights as well, all combine to point to Thursday as the day of his crucifixion, the vague and less-specific references to "sabbath" in the synoptic Gospels notwith-standing. When all the evidence from both the New Testament and the sources that describe Jewish practice in the first century are considered, that Jesus was crucified on a Thursday is a clear and logical conclusion.

# Book of Mormon Timing on the Weekday of Jesus's Death

In addition to the evidence already examined from the Book of Mormon about the length of Jesus's life and the year of his death, some very specific details are presented in the book of 3 Nephi that relate to the actual day of the week on which he died. The terrible storm described in 3 Nephi 8 is universally understood to have occurred during a three-hour period when Jesus was hanging on the cross outside the wall of Jerusalem, with the end of the storm coinciding with the time of his death. Centuries earlier, Nephi had specifically prophesied that three days of darkness would be "a sign [that should be] given of his death" (1 Ne. 19:10). Samuel the Lamanite foretold three important timing factors concerning Jesus's death. The first was that a storm ("thunderings and lightnings") would occur "at the time that he shall yield up the ghost" (Hel. 14:21). The second was that three days of darkness would be a sign of Jesus's death and, specifically, that the onset of darkness would occur on the day Jesus would die: "In that day that he shall suffer death the sun shall darkened" (Hel. 14:20). The third factor was that the darkness would end at Jesus's resurrection, lasting "for the space of three days, to the time that he shall rise again from the dead" (Hel. 14:20). The actual occurrence of the storm is reported in 3 Nephi 8:5–19, with the three-hour duration of that storm specified in verse 19. That same verse notes the commencement of the darkness, which is then described as having lasted for three days (3 Ne. 8:23; 10:9). That Jesus had died at the time of the storm seems confirmed by the account of his voice being heard from the heavens, during the period of darkness, by Nephite survivors (3 Ne. 9:1–10:9, esp. 9:15 and 10:3–9).

An eight-hour time difference exists between Jerusalem and the central time zone of the Americas. This means, for example, that an event that occurs in Jerusalem at 3:00 PM is timed as occurring at 7:00 AM that same day in the American central time zone. The New Testament Gospels place Jesus's death around the "ninth hour" (Matt. 27:46, Mark 15:34, Luke 23:44), which would be roughly around 3:00 PM in Jerusalem. This means that his death occurred around 7:00 AM in what today is known as the American central time zone (which covers the entirety of Mesoamerica, the likely venue of the Book of Mormon narrative, as well as the largest part of Mexico and the central United States). The onset of the Book of Mormon's three days of darkness may therefore be estimated around 7:00 AM on the first day of that darkness, the day of the crucifixion, with the three-hour storm having commenced around 4:00 AM, two hours prior to sunrise (which occurs close to 6:00 AM around the beginning of April).

Two facts become obvious from the above information. The first is that three days of darkness cannot be reconciled with a Friday cruci-fixion model—darkness in America would have occurred only on Friday and on Saturday prior to Jesus's resurrection, which would have occurred prior to midnight on Saturday night, American central time.<sup>111</sup>

<sup>111.</sup> The elements of the model for the three days of darkness that are presented in this section were developed by the author independently during his tenure as an LDS institute instructor in the 1990s. The discussion of them in this article was completed before a review of literature discovered that some of the same issues were raised by David B. Cummings in "Three Days and Three

No darkness could have still been present in America during the day on Sunday (see fig. 11 below). The second obvious fact is that a Thursday crucifixion model exactly fits the timing necessary for three days of darkness to have occurred in America prior to Jesus's resurrection (see fig. 12 below). The evidence is clear that Jesus passed away on Thursday around 7:00 AM American central time, that the first day of darkness in America was Thursday, and that the second and third days of darkness were Friday and Saturday. Jesus's resurrection occurred prior to sunrise in Jerusalem on Sunday, which was well prior to midnight Saturday night in the American central time zone. At sunrise on Sunday in America, normal daylight once again appeared, serving as the sign that Jesus had risen more than eight hours earlier in Jerusalem.

One curious issue in the Book of Mormon dating of Jesus's death must be addressed here. The day on which the storm occurred in the Nephite record, which Book of Mormon commentators universally regard as the day on which Jesus died, is noted by Mormon as "the first month, on the fourth day of the month" (3 Ne. 8:5). However, in Jewish reckoning, as demonstrated earlier, Jesus's death occurred on the 14th day of the biblical first month (Aviv, or Nisan). To what is this ten-day difference to be attributed? Without insisting on certainty, I would suggest that there was an error in the Nephite record that had come into Mormon's hands, and that it was actually on the *14th* day of the first month of the Nephite Law of Moses calendar that the storm marking the death of Jesus occurred. This suggestion relies on two factors, one a virtual certainty and one my own supposition.

The first factor is that in observing the ordinances of the Law of Moses, including the festival ordinances, the Nephites would certainly have used the lunar-solar calendar of the ancient Jews as it had come down to them from the time of Nephi (c. 600 BC). As explained earlier, the Law of Moses is dependent upon that calendar cycle, and its ordinances and festivals, including the operations of a Law of Moses–based temple, cannot be carried out exclusive of that calendar reckoning. The Nephite records stipulate that they observed and kept the Law of Moses with strict care (see Alma 30:3; 3 Ne. 1:24–25; compare 2 Ne. 5:10, 5:16; 25:4; Jarom 1:5; Mosiah 2:3, 12:28, 13:27; Alma 25:15; Hel. 13:1) Regardless of how their own

Nights: Reassessing Jesus' Entombment," *Journal of Book of Mormon Studies* 16, no. 1 (2007): 56–63. Although Cummings's discussion is less conclusive and his figures somewhat confusing, he, too, arrives at the view that a Thursday crucifixion best fits the Book of Mormon description of the three days of darkness.

methods of observing ordinances and festivals may have evolved differently from the Jews of Judea during the six centuries after Nephi's ship landed in America, the Nephites would have surely observed the lunarsolar calendar for the Mosaic operations, since it is a systemic component of the Law of Moses, in particular with regard to the festival ordinances, and since astronomical dynamics (solar seasons and phases of the moon) would be the same in ancient America and the ancient Near East.

The second factor (my supposition) is that a dating error existed in the plates of Nephi from which Mormon was drawing data when composing his own narrative in the book of 3 Nephi. Mormon lived centuries after the events of 3 Nephi and had no personal experience with the Law of Moses or its systemic lunar-solar calendar. In a disclaimer quite unique in his account, Mormon admitted the possibility of a calendar error for the events of 3 Nephi 8. In dating the storm to the "fourth day of the month," he also said, "if there was no mistake made by this man in the reckoning of our time" (3 Ne. 8:2–5). Mormon was careful not to condemn the ancient record keeper, pointing out that he had been a very righteous man (3 Ne. 8:1). But that Mormon would insert his "if there was no mistake made" caveat at this very point in his text suggests, to me at least, that he indeed suspected a calendar error.<sup>112</sup> In my opinion, such an error did exist—it was in the plates of Nephi, and it was a tenday error in which the *14th* day of the first month was mistakenly written

<sup>112.</sup> Blumell and Wayment cite 3 Nephi 8:2 ("if there was no mistake made by this man in the reckoning of our time") in discussing the 600-year prophecy of Lehi. See Blumell and Wayment, "When Was Jesus Born?" 64. While it is certainly possible that Mormon had that year count in mind, it is more probable that he suspected an error in the recording of the day of the month in which the storm occurred, for 3 Nephi 8:2 speaks of the passing of the thirty-third year, which relates directly to the first month of the thirty-fourth year subsequently mentioned in verse 5. The 600-year count is not mentioned anywhere in close proximity to 3 Nephi 8, its most recent references occurring in 3 Nephi 1:1 and 2:6. With regard to the 600-year prophecy, Blumell and Wayment refer to it as having been declared by Nephi in 1 Nephi 19:8 (see Blumell and Wayment, "When Was Jesus Born?" 64), without acknowledging that the prophecy was actually first uttered by Lehi in 1 Nephi 10:4, a passage with context in the valley of Lemuel, long prior to the voyage to America. Lehi's prophecy, uttered while still in the Old World, cannot logically have had reference to any type of year other than the lunar-solar Jewish year with which he was acquainted. In other words, the 600-year prophecy cannot have had reference to any type of calendar count in ancient American calendars, and it certainly cannot have somehow referred to 600 Mesoamerican tuns, which were not years anyway (see nn. 41 and 45 above).

Friday (Day One) Central Standard Time	Saturday (Day Two) Central Standard Time	Sunday (Day Three) Central Standard Time
4:00 a.m. Jesus on cross (12:00 noon, Jerusalem) "the sixth hour"	6:00 a.m. Sunrise, America (2:00 p.m., Jerusalem)	6:00 a.m. Sunrise, America (2:00 p.m., Jerusalem)
Darkness commences in Jerusalem for three hours. Violent storm occurs in America for three hours.		Jesus has been risen for over eight hours by the time sunrise occurs on Sunday in America, in a Friday model for the crucifixion.
7:00 a.m. Jesus dies (3:00 p.m., Jerusalem) "the ninth hour"		
Darkness commences in America (Day One)	Darkness all this day in America (Day Two)	There is no possibility for a third day of darkness in
10:00 a.m. Jesus in tomb (6:00 p.m., Jerusalem)		fixion model.
11:00 a.m. in America (Sunset, Judea) (7:00 p.m., Jerusalem)	11:00 a.m. in America (Sunset in Judea) (7:00 p.m., Jerusalem)	
Darkness all this day in America (Day One)		
6:00 p.m. Sunset, America (2:00 a.m., Sat., Jerusalem)	6:00 p.m. Sunset, America (2:00 a.m. Sun., Jerusalem)	
	Jesus's resurrection occurs prior to Sunday sunrise in Judea.	
12:00 midnight, America (8:00 a.m., Sat., Jerusalem)	12:00 midnight, America (8:00 a.m., Sun., Jerusalem)	
	Visitors already at empty tomb in Jerusalem.	

**FIGURE 11.** Day chart showing that a Friday crucifixion model does not work with the Book of Mormon description of three days of darkness. © 2014 by Jeffrey R. Chadwick

Thursday (Day One) Central Standard Time	Friday (Day Two) Central Standard Time	Saturday (Day Three) Central Standard Time	Sunday Central Standard Time
4:00 a.m. Jesus on cross (12:00 noon, Jerusalem) "the sixth hour"	6:00 a.m. Sunrise, America (2:00 p.m., Jerusalem)	6:00 a.m. Sunrise, America (2:00 p.m., Jerusalem)	6:00 a.m. Sunrise, America (2:00 p.m., Jerusalem)
Darkness commences in Jerusalem for three hours. Violent storm occurs in America for three hours.			Daylight finally appears again in Amer- ica as morning comes, after the three days of darkness.
7:00 a.m. Jesus dies (3:00 p.m., Jerusalem) "the ninth hour"			
Darkness commences in America (Day One)	Darkness all this day in America (Day Two)	Darkness all this day in America (Day Three)	
10:00 a.m. Jesus in tomb (6:00 p.m., Jerusalem)			
11:00 a.m. in America (Sunset, Judea) (7:00 p.m., Jerusalem)	11:00 a.m. in America (Sunset in Judea) (7:00 p.m., Jerusalem)	11:00 a.m. in America (Sunset in Judea) (7:00 p.m., Jerusalem)	
Darkness all this day in America (Day One)			
6:00 p.m. Sunset, America (2:00 a.m., Fri., Jerusalem)	6:00 p.m. Sunset, America (2:00 a.m., Sat., Jerusalem)	6:00 p.m. Sunset, America (2:00 a.m., Sun., Jerusalem)	
		Jesus's resurrection occurs prior to Sunday sunrise in Judea.	
12:00 midnight, America (8:00 a.m., Fri., Jerusalem	12:00 midnight, America (8:00 a.m., Sat., Jerusalem)	12:00 midnight, America (8:00 a.m., Sun., Jerusalem)	
		Visitors already at empty tomb in Jerusalem.	

FIGURE 12. Day chart showing that a Thursday crucifixion model works well with the Book of Mormon description of three days of darkness. © 2014 by Jeffrey R. Chadwick



FIGURE 13. Pages 57–59 from the Dresden Codex B, a twelfth-century document from Chichen Itza, written in Mayan glyphs. Maya "bar and dot" numerals appear on these pages—the glyphic combinations for the numbers 4 and 14 are outlined in this photograph. Photo: "Dresden Codex pp. 58–62 78" by unknown photographer, cropped. Licensed under Public Domain via Wiki Commons, https://commons.wikimedia.org/wiki/File:Dresden\_Codex\_pp.58-62\_78.jpg.

down as the *fourth* day of the month.<sup>113</sup> If this supposition is correct (and I emphasize again that it is my own theory and not to be demanded), the actual Nephite Law of Moses date on which Jesus died would have been the *14th* day of the first month, which would be the same as the 14th of Nisan in the Judean calendar, in the year we know as AD 30.

# Conclusion

The numerous avenues of inquiry explored in this study together demonstrate that Jesus died on Thursday, April 6 (Julian), AD 30, which was

<sup>113.</sup> Such a mistake is quite plausible, given what is known of Mesoamerican writing and numeral systems (assuming a Mesoamerican setting for most of the Book of Mormon narrative). Numbers in ancient Mayan were written in a "bar and dot" system, in which values from 1 to 4 were written with dots  $(1 = \bullet, 2 = \bullet\bullet, 3 = \bullet\bullet\bullet, 4 = \bullet\bullet\bullet\bullet)$  and values of 5 and its multiples were written with bars (5 = --, 10 = =). The way to write the number 9, for example, was  $\bullet\bullet\bullet\bullet$ (a 5-bar and four 1-dots). The way to write 14 was with four dots above a double bar (a 10-double-bar plus four 1-dots). But if the scribe erred, either by having the wrong number in his mind or by simply forgetting to include the double bar for 10 and simply put down four dots, the number 4 can easily have been mistakenly inscribed instead of the number 14. For a concise and authoritative treatment on ancient Mesoamerican (Mayan) numbers, see Coe, *Maya*, 231–35.



FIGURE 14. Skull Hill in Jerusalem, the likely site of Golgotha, is located just outside the main northern gate of the Old City. This ancient feature now looms over the parking lot of a modern bus station. As it is today, Golgotha would have been a busy crossroads just outside the city gate when Jesus was crucified. Photo by Jeffrey R. Chadwick.

the 14th day of Nisan in the Judean calendar, the day of the preparation of Passover. The evidences from the New Testament, the Book of Mormon, the Mishnah, and from historical, archaeological, and astronomical studies all combine to endorse this dating beyond any reasonable doubt. Jesus died at the location known popularly as Golgotha, outside the northern wall of Jerusalem, and his body was laid, late that Thursday afternoon, in a rock-hewn tomb located in an olive garden, probably just east of the crucifixion site.<sup>114</sup>

To readers of this study who may not be Latter-day Saints-those of other faiths and backgrounds, Christian and otherwise, who may hesitate to give credence to evidence from the Book of Mormon-I would suggest that the issues presented in this study from the New Testament, the Mishnah, and the historical and astronomical studies alone are more than enough to definitively demonstrate the dating of Jesus's death to the year AD 30, to the 14th of Nisan on April 6, and to the Passover preparation on a Thursday. It is my hope that New Testament scholarship in general will take note of this evidence. That said, as a Latter-day Saint, I am not only duty-bound but personally grateful to accept and present data from the Book of Mormon, the genuine historical reliability of which I am both spiritually and materially convinced, to corroborate the evidence of the New Testament and the other avenues explored. To all this I add my additional conviction that three days later, prior to dawn on Sunday morning, the 17th of Nisan, April 9 (Julian), AD 30, that same Jesus rose from the dead, walked away from that garden and tomb, and was seen by witnesses to whom this study has referred.<sup>115</sup>

<sup>114.</sup> For a detailed description and study of the crucifixion and burial sites, see Jeffrey R. Chadwick, "Revisiting Golgotha and the Garden Tomb," *Religious Educator* 4, no. 1 (2003): 13–48. The Church of the Holy Sepulcher being disqualified on several key points, the location known as "Skull Hill" or "Gordon's Calvary" is proposed as the probable site of the execution of Jesus. But the well-known "Garden Tomb" also fails to meet the New Testament criteria for Jesus's sepulcher, and a burial location to the east of Golgotha is suggested.

<sup>115.</sup> The conclusions in this study are, of course, based on careful examination of accounts found in the four New Testament Gospels. The origin and veracity of New Testament texts and accounts are highly debated topics. With regard to the four Gospels, the breadth of opinion spans from those whose research has found the reports in the Gospels to be generally and genuinely trustworthy to those who insist those reports are largely contrived and untrustworthy. An example of the former is James Charlesworth, who has produced many volumes demonstrating the basic reliability of the Gospel narratives, and

Jeffrey R. Chadwick is Jerusalem Center Professor of Archaeology and Near Eastern Studies, and also Professor of Religious Education (Church History, Jewish Studies) at Brigham Young University. He is a senior fellow at the W. F. Albright Institute of Archaeological Research in Jerusalem and serves as senior field archaeologist and director of upper city excavations for the Tell es-Safi/ Gath Archaeological Project in Israel.

an example of the latter is Bart Ehrman, who has produced many other volumes declaring those narratives unreliable.

The most ancient sources that describe the compositions of the four Gospels, including the earliest descriptions preserved from the second century AD writer Papias, strongly suggest to me, personally, that the Gospel accounts are quite reliable, and this is the premise from which I have worked in preparing this study. For those wishing to explore this topic, I suggest the work cited several times above: *The New Testament Documents: Are They Reliable?* by F. F. Bruce, a concise but thorough work of unusual genius, which I strongly endorse. For the perspective of multiple LDS scholars, I suggest *How the New Testament Came to Be*, edited by Kent P. Jackson and Frank F Judd Jr. (Salt Lake City: Deseret Book; Provo, Utah: BYU Religious Studies Center, 2006), a valuable anthology of numerous and various views, not all of which, however, I personally endorse.