When Was Jesus Born?

A Response to a Recent Proposal

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Editor's note: We are pleased to publish this article, which pushes forward the conversation about what is known and not known about the dating of the birth of Jesus Christ. This article responds to the article by Professor Jeffrey R. Chadwick on this subject, which appeared in 2010 in our volume 49, number 4, available on the BYU Studies website. The goal of the Chadwick article was to harmonize as much of the evidence, both scriptural and historical, as possible, sometimes using new or uncommon interpretations in order to reconcile apparent disparities in the sources. By contrast, Professors Wayment and Blumell prefer a more cautious approach, placing less weight on positions that cannot be established with historical or textual certainty. While both of these articles agree on many points, this new analysis urges readers to adopt a less precise time frame in thinking about when the birth of Jesus might have occurred. We welcome this rigorous and respectful give-and-take, and we hope that all readers will enjoy drawing their own conclusions about the evidences and approaches advanced by both of these articles.

Determining an exact date (year, month, and day) for many events from antiquity is fraught with difficulties and challenges. Though modern society tends to implicitly associate "important" events with a specific date (or dates), like September 11, 2001, or December 7, 1941, ancient societies did not always feel compelled to remember such events by reference to the actual date on which they occurred. Therefore, even good primary sources from antiquity will not always describe a particular event by reference to the exact date that it actually happened. On the other hand, some ancient societies did at times keep rather specific chronological or calendrical records

that can be converted into our modern system of reckoning, thereby allowing us to assign a specific date to a particular event. But because we possess very little documentation from the ancient world, and the survival of such records is largely the result of happenstance, our chronological reconstructions of various events are more often than not quite spotty. As a result of these challenges, many events from antiquity can be dated only approximately (within a few years or even decades) or relatively (*ante quem*/*post quem*—before or after another more securely established event). While this means there are genuine historical limitations involved in precise chronological reconstructions of antiquity, this does not mean that all efforts to date events from antiquity are totally futile.

Keeping these caveats in mind, in a previous issue of *BYU Studies* Jeffrey R. Chadwick proposed a very specific timeline for the date of Jesus's birth.[1] Relying on a wide variety of sources, he argued that Jesus's birth must have occurred sometime during December of 5 BC. We feel that while some of his conclusions were reasonable, his main argument was based on faulty evidence and that his handling of certain ancient sources, including the Book of Mormon, was problematic. Therefore, this study seeks to reconsider the ancient evidence concerning the timing of the birth of Jesus in light of Chadwick's assertions. We are convinced that the primary evidence does not allow one to pinpoint a year, let alone a month, for the birth of Jesus with any degree of certitude.

Early Christian Speculation on Jesus's Date of Birth

To properly answer the question of when Jesus was born, one must consider whether there is any surviving primary evidence to be gleaned from early Christian writers. Since they had the advantage of having lived shortly after the Nativity, they could have conceivably benefited from information now lost to us. Outside of Matthew and Luke (treated below), no New Testament author gives any attention to the birth of Jesus. When one moves on to the writings of the Apostolic Fathers, traditionally identified as those Christians who were thought to succeed the Apostles and the New Testament writers (c. AD 80–110), there is virtually no mention about the precise date of Christ's birth. The *Didache*, *1* and *2 Clement*, the *Epistle of Barnabas*, the *Shepherd of Hermas*, the *Epistle of Polycarp to the Philippians*, and the extant fragments of Papias of Hierapolis say nothing at all about the timing of the birth of Jesus.[2] The first reference to Christ's birth in the Apostolic Fathers that potentially provides a minor detail about the timing of Jesus's birth can be found in Ignatius of Antioch's (c. AD 35–107) *Epistle to the Ephesians* where he reports that at the birth of Jesus a new star appeared:

> Now the virginity of Mary and her giving birth were hidden from the ruler of this age, as was also the death of the Lord—three mysteries to be loudly proclaimed, yet which were accomplished in the silence of God. How, then, were they revealed to the ages? A star shone forth in heaven brighter than all the stars; its light was indescribable and its strangeness caused amazement. All the rest of the constellations, together with the sun and moon, formed a chorus around the star, yet the star itself far outshone them all, and there was perplexity about the origin of this strange phenomenon, which was so unlike the others.[3]

Unfortunately, Ignatius's statement does not give any additional insight into the birth date of Christ since he says little more than what is already found in Matthew 2:2–10, where it is reported that a new "star" appeared at Jesus's birth.

Moving ahead a few years, the Christian apologist Justin Martyr (c. AD 100–165) similarly remarks on the birth of Christ.[4] Like Ignatius of Antioch, he does not disclose details about its timing but simply repeats what had been said by Luke, namely, that Jesus was born when Quirinius (King James Version "Cyrenius" [Luke 2:2]) was taking his census in Judea in AD 6 and 7. While he states that "Christ was born one hundred and fifty years ago under Quirinius," it should not be supposed here that Justin is promoting a specific date for his birth.[5] Rather, we can reasonably assume his lack of detail and his use of a round number indicates that he is simply giving an approximate date for when Christ was born.[6] Accordingly, this reference cannot be used with confidence to determine a specific year for Jesus's birth.[7]

The first Christian writer to make a specific claim about the timing of the birth of Jesus is the second-century bishop and heresiologist Irenaeus of Lyons (c. AD 130–200). In his work *Against Heresies*, written against various gnostic Christian sects, when discussing the translation of the Hebrew Bible (Old Testament) into Greek (Septuagint) under the patronage of Ptolemy Philadelphus II and the fidelity of this translation, he makes the following remark concerning the timing of Jesus's birth: "For our Lord was born about the forty-first year of the reign of Augustus; but Ptolemy [Philadelphus II] was much earlier, under whom the Scriptures [Septuagint] were interpreted."[8] The reference to the "forty-first year" should not be calculated from the Battle of Actium in 31 BC, when Augustus effectively became sole ruler of the Roman Empire, but rather from the time that Augustus, or more appropriately Octavian, was adopted by his great uncle Gaius Julius Caesar in 44 BC.[9] Alternatively, Irenaeus could have also been counting from the time Augustus was elevated to the consulship (*consul suffectus*) in August of 43 BC. Allowing for both possibilities, the year of Jesus's birth

proposed by Irenaeus would be either 4 or 3 BC. However, it also needs to be recognized here that Irenaeus was not providing an absolute date for the birth of Jesus, since he prefaced his commentary with the word "about" (Latin *circa*). It seems probable that Irenaeus was simply relying on the Gospel accounts, particularly Luke's, and was attempting to connect the birth with the reign of Augustus.[10]

Nearly half a century later, at either the close of the second century or beginning of the third century, Clement of Alexandria (c. AD 150–215) reported with some disapproval and skepticism that he knew of certain Alexandrian Christians who had attempted to work out the exact date of Jesus's birth: "And there are those who have determined not only the year of our Lord's birth, but also the day; and they say that it took place in the twenty-eighth year of Augustus, and in the twenty-fifth day of Pachon. . . . Further, others say that He was born on the twenty-fourth or twenty-fifth of Pharmuthi."[11] Because Clement was writing from Egypt, the reference to the "twenty-eighth year of Augustus" is not to be reckoned from Augustus's adoption or first consulship (44 and 43 BC) so that Clement is thought to be saying that Jesus was born in either 17 or 16 BC—much too early. It is relatively well known that in Egypt, in contrast to other provinces in the Roman Empire, the "reign of Augustus" was counted from August of 30 BC—the time when Egypt was annexed and officially became a Roman province.[12] Therefore, Clement's reference to the "twenty-eighth year" corresponds to the year 2 BC. The additional reference to the "twenty-fifth day of Pachon," Pachon being the Egyptian month that roughly corresponds with May, means that certain Christians were alleging that Christ was born on the equivalent of May 20, 2 BC. Alternatively, Clement also relates that there were others who argued that Jesus was born on either "the twenty-fourth or twenty-fifth of Pharmuthi," Pharmuthi being the month of the year that most closely corresponds to April. Assuming that he was still referring to the "twenty-eighth year of Augustus," this would mean that others were alleging that Jesus was born on a date corresponding with either April 19 or 20 of 2 BC.

From the larger context of this reference, it is evident that Clement cites these speculations with disapproval, and it is relatively clear that he himself is not convinced by them. Nevertheless, they are intriguing because they represent the earliest known specific dates set forth by any Christians for the birth of Jesus that are also independent of the Gospels.

At roughly the same time that Clement reported these speculations, the Latin Church Father Tertullian of Carthage (c. AD 160–225) also weighed in on the matter. In his treatise *Against the Jews*, a largely rhetorical work in which Tertullian attempts to persuade Jews of the truthfulness of the

Christian faith, he discusses the reality of Jesus of Nazareth and speaks about his birth in very specific chronological terms: "Let us see, moreover, how in the forty-first year of the empire of Augustus, when he has been reigning for xx and viii years after the death of Cleopatra, the Christ is born. (And the same Augustus survived, after Christ is born, xv years; and the remaining times of years to the day of the birth of Christ will bring us to the xl first year, which is the xx and viiith of Augustus after the death of Cleopatra)."[13] Like Irenaeus before, Tertullian argues that the date of the birth occurred in the "forty-first year of Augustus." However, it becomes evident from the remainder of the reference that Tertullian intended a year coinciding with 3 BC, or perhaps even early 2 BC, and therefore began his reckoning when Augustus was elevated to the consulship in August 43 BC. This is conveniently confirmed, since Tertullian also adds that Jesus was born twenty-eight years after the death of Cleopatra (August of 30 BC) and fifteen years before the death of Augustus (August of AD 14).

Two other Christian writers of relatively early date who also discuss the birth date of Jesus and who offer relatively specific dates are Julius Africanus (c. AD 180–250) and Eusebius of Caesarea (c. AD 260–340). In Julius Africanus's chief work, which was entitled *History of the World* and is no longer extant except in fragments, he attempts to set forth a history that spanned from creation to the year AD 221, arguing that the temporal duration of the world would last 6,000 years and that Christ was born in the year 5,500. There is a short section in one of the extant fragments of the work that allows for this reference to be readily converted to a date according to our modern system of reckoning: "But I am amazed that the Jews deny that the Lord has yet come, and that the followers of Marcion refuse to admit that His coming was predicted in the prophecies when the Scriptures display the matter so openly to our view. . . . The period, then, to the advent of the Lord from Adam and the creation is 5531 years, from which epoch to the 250th Olympiad there are 192 years, as has been shown above."[14] Though this passage may seem to imply that Africanus was alleging that Jesus was born in the year 5531, and not 5500, the year 5531 actually has reference to the "coming" of Jesus or more specially to the beginning of his ministry—which Africanus places about AD 29.[15] That this passage refers to the beginning of Christ's ministry, and not his birth, is evident since Africanus goes on to state that from the year 5531 about 192 years had passed until the commencement of the 250th Olympiad (the time in which Africanus lived and completed his history).[16] Since the first year of the 250th Olympiad was AD 221, by subtracting 192 years one arrives at a date of about AD 29.[17] To arrive at the timing of Jesus's birth from this passage, all one needs to do is go back about 31 years from year AD 29. This is done because elsewhere

Africanus maintains that Jesus was born in the year 5500, and so if he started his ministry in the year 5531 (AD 29), 31 years need to be subtracted to arrive at his birth date (year 5500). This means that Africanus alleges in his work that Jesus was born in or about the year 2 BC.[18]

Lastly, let us turn to Eusebius, who argues in both his *Ecclesiastical History* and his *Chronicle*, which was based in part on Africanus's *History of the World*, that Jesus was born about 2 BC:

> And now, after this necessary introduction to our proposed history of the Church, we can enter, so to speak, upon our journey, beginning with the appearance of our Saviour in the flesh. And we invoke God, the Father of the Word, and him, of whom we have been speaking, Jesus Christ himself our Saviour and Lord, the heavenly Word of God, as our aid and fellow-laborer in the narration of the truth. It was in the forty-second year of the reign of Augustus and the twenty-eighth after the subjugation of Egypt and the death of Antony and Cleopatra, with whom the dynasty of the Ptolemies in Egypt came to an end, that our Saviour and Lord Jesus Christ was born in Bethlehem of Judea, according to the prophecies which had been uttered concerning him. His birth took place during the first census, while Cyrenius was governor of Syria.[19]

The references to the "forty-second year of the reign of Augustus" and the "twenty-eighth [year] after the subjection of Egypt" affirm a date corresponding to about 2 BC. The "forty-second year" may be counted from 44 BC, when Augustus (Octavian) was adopted by Julius Caesar, and the "twenty-eighth [year]" reference is to be counted from 30 BC, when Egypt was annexed by Rome. In his *Chronicle,* Eusebius also maintains a birthdate for Jesus corresponding with 2 BC, but he puts it in terms of the Olympiad cycle. Here he reports that "Jesus Christ son of God is born in Bethlehem of Judea" (*Iesus Christus filius Dei in Bethleem Iudae nascitur*) in the third year of the 194th Olympiad (2 BC).[20]

Though other later Christian writers could be cited here, such as Epiphanius of Salamis (c. AD 315–403) or Paulus Orosius (c. AD 385–450), who both give specific dates for the birth of Christ, it is clear that they are dependent on the writings of these earlier fathers and do not bring anything new to the debate.[21] While later Byzantine chroniclers like John Malalas (c. AD 490–575) will begin to argue that Jesus was born on December 25, 2 BC, and will even give the time of day when Jesus was allegedly born, such statements are clearly the result of much later Christian tradition that does not begin to develop until the fourth century.[22]

From this brief survey of early Church Fathers (Irenaeus, Clement, Tertullian, Julius Africanus, and Eusebius), a few observations should be highlighted. First, it was not until well into the second century that any

Christian writer began to address the issue of the specific date of the birth of Jesus in any detail, and by and large, based on their reticence to address this subject, it would seem that early Christians had very little primary evidence independent of the Gospels. Even the writers who rendered a specific date often did so only in passing, typically as part of another argument. Second, it is important to note that these writers were typically concerned with the year of Jesus's birth but rarely offered information concerning a month or day. Third, although it is not impossible that these early writers were relying on unknown sources or oral traditions that are otherwise lost to us, it seems most likely, based on the details they do render, that they were simply reliant on the Gospel accounts given in Matthew and Luke. This seems likely, since the only chronological details they tend to mention in connection with the birth all come from sources known from the Gospels: Augustus (Luke 2:1), Cyrenius (Luke 2:2), Herod (Matt. 2:1), new star (Matt. 2:2), wise men (Matt. 2:1), regnal year of Tiberius (Luke 3:1), and the approximate age of Jesus when he began his ministry (Luke 3:23). Lastly, it should be emphasized that while these writers place the birth of Christ within three years of each other (anywhere from 4 BC to 2 BC), there is no general agreement on the actual year of Jesus's birth.

Dates Proposed by Various Early Christian Writers for the Birth of Jesus

Irenaeus of Lyons	forty-first year of the reign of Augustus, reckoning from either 44 or 43 BC	= 4 or 3 BC
Clement of Alexandria[23]	twenty-eighth year of Augustus, 24/25 Pharmuthi and Pachon 25, reckoning from 30 BC	= April 19 or 20, 2 BC, and May 20, 2 BC
Tertullian of Carthage	forty-first year of the empire of Augustus, reckoning from 43 BC	= 3 BC or possibly 2 BC
Julius Africanus	5500 years since creation	= 2 BC
Eusebius of Caesarea	forty-second year of the reign of Augustus and the twenty-eighth after the subjugation of Egypt / third year of 194 Olympiad	= 2 BC

The Gospels on the Timing of Jesus's Birth

As the previous section has shown, early Christian interest in the birth date of Jesus cannot be pressed beyond identifying an estimation of the year, which parallels the interest of the Gospel authors. Moreover, Matthew 2 and Luke 3 emerge as the most important primary sources for the

birth of Jesus. Matthew and Luke specifically link the birth of Jesus with the tenure of Herod, who died in the spring of 4 BC. In many respects, the death of Herod provides a solid *terminus post quem* for Jesus's birth since, according to Matthew 2:15, 19 and Luke 1:5, Herod was alive when Christ was born and died sometime thereafter when Jesus was still a child.[24] Since there is compelling evidence that Herod died sometime in the spring of 4 BC, Jesus's birth must be placed sometime before this event.[25] Though this date may come as a surprise to some because it implies that our modern calendar that reckons from the "year of the Lord" (*anno domini* or AD) is actually off by a few years,[26] it has long been recognized that Dionysius Exiguus, the sixth-century Scythian monk who invented reckoning according to the *anno domini* era that later served as the basis for the current Gregorian calendar, miscalculated and did not correctly begin with the actual year of Jesus's birth.[27]

In Matthew 2:1, it is asserted that Jesus was born in Bethlehem when Herod was king. In the same chapter, Matthew reports that "wise men" from the east came to visit Jesus. After stopping at Jerusalem, where their intention was made known to Herod, they proceeded on to Bethlehem, where they found Jesus. Verse 9 reports that the wise men came and stood over the "young child." The Greek word used here is *paidion* (Greek παιδίον) and should be interpreted as a "young child" as opposed to "infant" or "newborn," which are different Greek words (*nēpios,* νήπιος or *brephos*, βρέφος). Matthew's intent with the use of *paidion* is uncertain, but the fact that elsewhere he refers to "babies" makes it more likely that he intended a young child in 2:9.[28] The slaughter of the children in Matthew 2:16, where all children (Greek *pais*, παῖς) from "two years old and under" were slain according to the timing of the encounter with the wise men, also encourages the idea that Jesus was a young child when the wise men appeared. Combined with the evidence of Herod's death in spring 4 BC, it seems reasonable to conclude that the date of Jesus's birth should be pushed back into the previous year, if not more, to account for Jesus being "two years old and under."

In combination with Herod's death date is the reign of Tiberius, which Luke mentions in connection with the beginning of Jesus's ministry and thus provides a means of calculating backward to Jesus's birth date. Tiberius's reign as emperor of Rome is well attested (ruled AD 14–37), and, according to Luke, "in the fifteenth year of the reign of Tiberius Caesar" John the Baptist began to minister (Luke 3:1–3). Sometime shortly thereafter, and possibly during the fifteenth year of Tiberius's reign, "Jesus himself began to be about thirty years of age" (Luke 3:23).

The Roman senate proclaimed Tiberius sole emperor in AD 14, shortly after Augustus's death (19 August). By adding fourteen years to this date (in order to arrive at the fifteenth year of Tiberius), we should be able to determine the date of the beginning of John's ministry, which in turn can be broadly applied to the beginning of Jesus's ministry. That beginning date should also correspond to Jesus's age of about thirty years old (Luke 3:23). This calculation results in the mortal ministry beginning in about AD 28 and Jesus being born in roughly 3 BC. The evidence, unfortunately, is not entirely straightforward, because Tiberius was granted tribunician powers in 4 BC, which essentially gave him power equal to the emperor Augustus in the region of Gaul and the provinces. While the first granting of tribunician power was for a ten-year period, all limitations to his power were removed by vote on October 23, AD 12, and a consular decree in AD 13 gave Tiberius power equal to Augustus.[29]

The issue is determining which year Luke had reference to, because both AD 13 and AD 14 could legitimately be considered as beginning dates for Tiberius's reign, particularly in the provinces where Tiberius had the same power as the emperor at the earlier date. Luke would almost certainly have recognized the date in AD 13 as the beginning of Tiberius's reign.[30] Augustus himself used the date he was granted tribunician powers as the beginning of his reign.[31] If the earlier date was used for Tiberius's reign, then the Savior's mortal ministry would have begun in about AD 27 and Jesus would have been born in about 4 BC. If, however, Luke was estimating Jesus's age at the beginning of the mortal ministry, and it is likely that he was, then the connection to Tiberius's reign can offer us little more than a broad estimation.

Luke 2:2 connects the birth of Jesus with the census carried out by Publius Sulpicius Quirinius: "And this taxing was first made when Cyrenius was governor of Syria" in about AD 6–7.[32] The association of the birth of Jesus with the census, referred to as a taxation in the KJV (Greek *apographē*, ἀπογραφή), is considered by many scholars to be an erroneous statement by Luke.[33] Clearly, a birth date under Herod the Great (before his death in 4 BC) that was also during the census of Cyrenius (AD 6 or 7) is not historically possible unless some further evidence is brought to light that would indicate an earlier census of which we are currently unaware or some other piece of evidence that would resolve the issue.[34]

John 2:20 may also be important to determining the dates of Jesus's birth and death, where the Jews claim, "Forty and six years was this temple in building, and wilt thou rear it up in three days?" The building of the temple in this verse is certainly the expansion and enlargement of the temple that

was initiated under Herod the Great. According to John, this statement was made in the first year of Jesus's ministry. Josephus records two different dates for the beginning of the construction on the Jerusalem temple, the fifteenth year of Herod's reign (23–22 BC) and the eighteenth year of Herod's reign (20–19 BC).[35] The earlier date may refer to the planning stages of the temple reconstruction or when building materials were being brought to the site in preparation.[36] When the date of 20–19 BC is considered, a date of about AD 27–28 emerges as the first year of Jesus's ministry, which, although quite early, places the beginning nearly in the same time frame, but not exactly, as the fifteenth year of the reign of the emperor Tiberius.

The Gospel evidence is certainly important to deriving a date for Jesus's birth, but the evidence is again ambiguous. Each piece of evidence must be weighted, while some of the evidence likely has to be excluded as inaccurate or too broad for specific calculations (such as the census of Luke 2:2). In other words, the pieces of evidence cannot be fitted together seamlessly, and they do not allow one to arrive at an unambiguous determination for the year of the birth of Jesus.

Can the Book of Mormon Provide a Date for Jesus's Birth?

A single passage in the Book of Mormon has direct bearing on Jesus's birth year, because it appears to designate a fairly exact length of his mortal life. Verse 5 in 3 Nephi 8 states, "And it came to pass in the thirty and fourth year, in the first month, on the fourth day of the month, there arose a great storm." The storm mentioned in this passage may coincide with the calamities mentioned in Matthew 27:51–52 and thus on the very day of the death of Jesus. Therefore, if the death date of Jesus can be ascertained with any degree of certainty, then a birth year designation might also be possible. However, before considering the year of Jesus's death, we must look at the Book of Mormon evidence to determine its probative value.[37] It should be mentioned at the outset of any discussion of the Book of Mormon that it can only provide evidence for the death date, and by implication the birth date, if one knows for certain the length of a Nephite year. Chadwick recognizes this problem when he states that we can be "virtually certain that the years referred to in 3 Nephi were 365 days long."[38]

Ideally, the Book of Mormon evidence could be of some help, but unfortunately the evidence is simply too imprecise to provide anything more than approximate figures. The statement recorded in 3 Nephi is based on the Nephite calendar, which could have been either a solar or lunar calendar.[39] Despite the best scholarly efforts, no one can claim with any degree of certainty which ancient American civilization the Nephite calendar should

be tied to.[40] We must, therefore, proceed with caution, and rather than attempting to explain the Book of Mormon through external references to Mayan or other calendars, we feel it is wise to restrict the evidence to what appears internally in the Book of Mormon.

A survey of the existing literature on this subject reveals quite contradictory results. For purposes of the discussion, we have provided a brief summary of the primary evidence regarding the death date of Jesus, which in turn Chadwick used to calculate a birth date.

1. We cannot be certain of the number of months in a calendar year: eleven is the highest number of months mentioned in a single year (Alma 49:1). We are also uncertain on the number of days in a Nephite month.

2. The Book of Mormon people used Lehi's departure date for some purposes, which probably indicates that the 600-year prophecy of Jesus's birth from the time of Lehi's departure functioned independently of their official calendar (Jacob 1:1), unless Lehi happened to leave on or around New Year's Day.[41]

4. The Book of Mormon counts 600 years between Lehi's departure and the birth of Jesus, which according to our modern calendar occurred in less than 600 years.[42]

5. The Book of Omni uses moons as a means of determining the duration of an event (Omni 1:20–21).

6. In the Book of Mormon, the sign of the star appeared on the night of Jesus's birth. This star was in addition to Lehi's 600-year prophecy, indicating that a further celestial sign was possibly needed to narrow the date of the birth (Hel. 14:5; 3 Ne. 1:21).

7. The Book of Mormon authors referred to time using recognizable terms: days, weeks, months, and years, but without any indication of how many days there were in a year or month, both of which are crucial to determining the use of a lunar or solar calendar.

8. The dates at the bottom of the page in the printed edition of the Book of Mormon are often approximations. Because certain datable events are mentioned (for instance, the first year of the reign of Zedekiah in 597 BC), we realize that there are discrepancies between our calendar and theirs. For example, 597 BC in our calendar equates to 600 BC in theirs, and the birth of Jesus had to have occurred prior to 4 BC, whereas it occurs between 1 BC and AD 1 in the Book of Mormon.

The complexities of the Book of Mormon calendar are obvious. In a world where calendar issues may have been decided in roundabout calculations, one should remain cautious in making specific claims built upon general evidence. For example, when Nephi declared the coming of Jesus to be

"in six hundred years from the time my father left Jerusalem" (1 Ne. 19:8), he may have intended "about six hundred years."[43] Additionally, the Nephite authors were aware that mistakes may have arisen in their own calendar, as indicated in such statements as "if there was no mistake made by this man in the reckoning of our time" (3 Ne. 8:2), which advise caution.[44]

From these considerations, two distinct possibilities arise. If the Nephites used a lunar calendar that was purely lunar and not corrected by the cycle of the sun, then the average month would have lasted 29½ days, and therefore seasons would actually shift by eleven to twelve days per year because of the shortened cycle of the moon. In a twelve-month lunar year, there are approximately 354 days. If the Nephites rigidly followed a lunar calendar, then the actual number of years in Jesus's lifetime in a solar calendar would be thirty-two years. If the Nephites either adjusted their lunar calendar to the solar cycle or followed a true solar calendar, then the sign indicates a lifetime for Jesus of roughly thirty-three years and a few days. The problem with both of these figures is that they must also account for the fact that in the year when the Nephites began counting from the sign of Jesus's birth, it is not clear that they actually started their calendar anew. If they did, then the dates are fairly precise. If they did not, then the lunar and solar calculations must also account for the period of time when the sign was given and the beginning of the new year for the Nephites, and additional months must be added to the number of years. Therefore, the safest conclusion seems to be that we are dealing with a prophecy that indicates Jesus lived between thirty-two and nearly thirty-four years. It cannot be stated with any degree of certainty that he died on or around his birthday because of the possibility of the lunar calendar, which shifts the seasons over time.[45]

The Gospels on the Timing of Jesus's Death

One method used to determine the birth date of Jesus is to calculate the precise year of Jesus's death and then work backwards roughly thirty to thirty-three years. As discussed above, Chadwick employs this methodology because of a conviction that the Book of Mormon evidence precisely determines the length of Jesus's mortal life.[46] Therefore, while this section may seem like a detour in the present analysis, because Chadwick's argument hinges extensively on his conviction that Jesus could have died on either a Thursday or a Friday corresponding to April 6 or 7, AD 30, it is necessary to consider the date of Jesus's death in some detail.[47]

According to all four canonical Gospels, Jesus died sometime during the prefecture of Pontius Pilate, whose tenure lasted from approximately AD 26 to 36, and his death coincided with the Jewish spring festival of Passover.[48]

However, the four Gospels do vary slightly concerning the day on which Jesus died. While the Gospel of John clearly has Jesus crucified on the day of Passover preparation (Nisan 14), in Matthew, Mark, and Luke (the synoptic Gospels) this is not the case. In these Gospels, Jesus is crucified the day after the Passover preparation (Nisan 15), which was the day of Passover. This is proven rather definitively because these Gospels report that the "Last Supper" eaten by Jesus and his disciples was a Passover meal (Matt. 26:17; Mark 14:12; Luke 22:7–8, 15). It necessarily follows that if the Last Supper was a Passover meal, Jesus could not have been crucified on the day of Passover preparation, which preceded the Passover meal. In contrast, John places the death of Jesus on "the preparation of the passover" prior to the eating of the Passover meal (John 19:14–16; compare John 18:28). The consequence of the difference between the synoptics and John is that the former understood that Jesus died on Nisan 15 (the actual day of Passover) while the latter clearly indicates that Jesus died before Passover on Nisan 14 (Passover preparation). Thus, within the Gospels themselves two different dates are put forward for Jesus's death.[49]

Chadwick disregards this discrepancy in the Gospel accounts and incorrectly claims that all four Gospels place the Crucifixion on the day of Passover preparation.[50] Additionally, Chadwick argues that the day of the week that Jesus was crucified was Thursday, instead of the traditional Friday, and his grounds for doing so are problematic.[51] In the synoptics, it is absolutely clear that Jesus was crucified on a Friday before the Sabbath. This is evident since there is some urgency in these Gospels to get Jesus's body off the cross[52] because the Sabbath evening was approaching and it was the preparation for the Sabbath.[53]

In the Gospel of John 19:31–33, there is also much urgency to get Jesus's body off the cross because the Sabbath was approaching: "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. Then came the soldiers, and brake the legs of the first, and of the other which was crucified with him. But when they came to Jesus, and saw that he was dead already, they brake not his legs" (emphasis added). While the most obvious implication of this passage is that in the Gospel of John Jesus was also crucified, as in the synoptics, on a Friday since the Sabbath evening was fast approaching, some scholars have raised the possibility (regarding only the Gospel of John) that Jesus could have been crucified on a Thursday. John 19:31 gives a parenthetical comment that the approaching Sabbath "was an high day" (KJV), and some have therefore wondered if it is possible, since in the Gospel of John Jesus was crucified on the day

of Passover preparation, that this reference could be taken to refer to the festival of Passover and not necessarily the actual Sabbath (Saturday). The thinking here is that since certain festivals were treated as holy days or Sabbaths, perhaps this is what is being implied in John 19:31. Therefore, they have wondered whether it might be possible to move the day of Crucifixion back to a Thursday in the Gospel of John.

While this suggested interpretation cannot be completely ruled out (for the Gospel of John but not for Matthew, Mark, and Luke), such an interpretation is highly unlikely. The most logical and straightforward way to take this reference in the Gospel of John is that Jesus was crucified on a Friday, in agreement with the synoptics, but that the Sabbath day following the Crucifixion was "an high day" or doubly holy if you will, because it was both a regular Sabbath and a festal day (Passover).[54] Additionally, there is absolutely no evidence that the 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).[55] Finally, by moving the Crucifixion to Thursday, instead of Friday, a number of additional problems are brought to bear on the Passion narrative, not least of which is that Jesus would have been dead not for three days but for effectively four days (Thursday, Friday, Saturday, and Sunday).[56]

Returning to the issue of the death date, based on the evidence from the Gospels, what can be said with some certainty about the timing of Jesus's death is that it occurred on either Nisan 14 (day of Passover preparation) or Nisan 15 (day of Passover) and that the day of the week was Friday.[57] Knowing the date of Jesus's death within two days, and even being able to determine the day of the week, we can then attempt to calculate the year of Jesus's death. Some ambitious scholars have attempted in the past to narrow this window by invoking the aid of astronomy. They have argued that if one knows the month (Nisan), day of the week (Friday), and the day of the month (14th or 15th) Jesus was crucified on, then it would be possible to determine the year by astronomically calculating when the new moon (start of a month) would have occurred for that month (Nisan) and thereby determine the year (or years), since not in every year would the 14th or 15th of the month have fallen on a Friday. One fairly recent attempt, invoked by Chadwick, was done by two astrophysicists who argued that Jesus died on a date coinciding with Friday, April 3, AD 33, given what can be retroactively calculated using ancient lunar cycles.[58] They selected this date since they argued that Jesus was probably crucified on Nisan 14, thereby preferring the account given in John, and chose it over AD 30, a year in which Nisan 14 also fell on a Friday, since on this date there was also a lunar eclipse.[59]

Theoretical dates for 14th and 15th Nisan, AD 26–36, based on Lunar Calculations[60]

Year	*14th Nisan*	*15th Nisan*
AD 26	Sunday, April 21	Monday, April 22
AD 27	Thursday, April 10	Friday, April 11
AD 28	Tuesday, March 30	Wednesday, March 31
AD 29	Monday, April 18	Tuesday, April 19
AD 30	Friday, April 7	Saturday, April 8
AD 31	Tuesday, March 27	Wednesday, March 28
AD 32	Sunday, April 13	Monday, April 14
AD 33	Friday, April 3	Saturday, April 4
AD 34	Wednesday, March 24	Thursday, March 25
AD 35	Tuesday, April 12	Wednesday, April 13
AD 36	Saturday, March 31	Sunday, April 1

Theoretically, such precise calculations should enable us to accurately determine the date of Jesus's Crucifixion and, when combined with the other available evidence, ought to permit a reasonable estimation of the year of Jesus's birth. However, there is at least one very significant problem with this methodology.[61] Astronomical calculations cannot help us arrive at the actual date on which Passover preparation, or Passover, for that matter, would have been celebrated in any given year during the life of Jesus; they offer only the date that it *should* have been celebrated based on astronomical observations derived with modern technologies, which the ancients did not have. It must be remembered that at the time of Jesus, the Jewish calendar was governed by observation, not calculation; there is no indication that the Jews began to calculate the date of Passover astronomically until at least the fifth century AD, and therefore until this point their calendar was susceptible to observational errors.[62] This means that at certain times festivals would have periodically been observed on days that were, strictly speaking, incorrect by the standards of modern astronomical reckoning. While astronomy might be able to provide us with a theoretical date for Passover in any given year, based on our modern knowledge of the lunar cycle and its fluctuations, it cannot provide the actual date on which it was celebrated because first century Jews did not have access to the precise means of calculation that we have access to today.[63]

To be clearer on this point, according to the Law of Moses, which was governed by a lunar, and not a solar, calendar,[64] the spotting of a new moon signaled the beginning of a new month.[65] However, as is clear from

a number of ancient sources, this was not always a straightforward task. Observation of the new moon was complicated by such factors as poor weather conditions that obfuscated the appearance of the new moon, interruptions in society caused by war or natural crisis, and the unreliability of witnesses. For example, if it was cloudy for an extended period, or even a few days near the end/beginning of a month, it would have been very difficult to determine when exactly the new month should commence, since witnesses would not have been able to observe the new moon. Likewise, as the new month was based on human observation, it was always susceptible to error. According to the *Mishnah,* a new month would be declared by the priests and Sanhedrin when they were satisfied that a credible witness had actually seen the new moon and accurately described it upon questioning.[66] In some cases, witnesses were shown different pictures of the moon and asked which one they saw: "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?'"[67] Not surprisingly, given the less than scientific manner in which the new moon was determined, the *Mishnah* also records that there were at times spirited debates and arguments over whether or not the new moon had actually appeared, whether the testimony of the witness could be trusted, and whether the new month should be announced and commence.[68]

The most common observational error affecting the calendar in the first century (as well as previous and subsequent centuries when its reckoning was based on observation and not calculation) was the false sighting of new moons. That is, there was a tendency for witnesses to claim they had seen a new moon one day or potentially even two days early.[69] Accordingly, if the witnesses' testimony was believed and a new month announced, all the days in the month would have been moved forward one or two days, and if a festival were to occur in that month, it too would have been celebrated early. Alternatively, due to poor weather conditions it is equally possible that the new moon could be missed and the month would start a day late.

Though it may seem hard to believe that there could have been fluctuations in the Jewish calendar of one or potentially even two days due to observational error, such discrepancies are attested in the ancient world.[70] Without going into all the examples, two instances that relate directly to the timing of Passover should suffice. During the Council of Nicaea in May–June AD 325, one of the central issues of debate was the timing of Easter. In the course of the debate, Constantine remarked that Christians should not follow the Jewish system for determining Easter, since it was faulty. His reasoning, which is most significant, was that Jews did not often agree among

themselves on the correct date of Passover: "Thence it is, therefore, that even in this particular they [Jews] do not perceive the truth, so that they, constantly erring in the utmost degree, instead of making a suitable correction, *celebrate the Feast of Passover a second time in the same year*. Why then should we follow the example of those who are acknowledged to be infected with grievous error?"[71] Though this passage has been interpreted in a couple of different ways, all interpretations agree that Constantine was alluding to the fact that since the Jewish lunar calendar was readily susceptible to errors, Jews often did not agree even among themselves on the precise day Passover was to be celebrated. This does not mean that they did not know that it was to be celebrated on Nisan 15 but that they could not agree on what day this actually was. The implication is that sometimes Passover was either being celebrated on different days in different communities, thus the "Jews" as a group were celebrating Passover "twice," or that they were celebrating it on back-to-back days, since they were unsure which day was truly Nisan 15 and so by celebrating it twice they would hope to get it right.[72]

The second piece of evidence that the celebration of Passover specifically was susceptible to calendrical corruption comes from the Council of Sardica in AD 343.[73] The proceedings of this conference list the dates of Jewish Passover for the years AD 328–343 according to the Julian reckoning. What is significant is that when these dates are compared with the theoretical dates for Passover derived from astronomical calculations, it becomes evident that Passover was periodically celebrated on the incorrect day; some years it was early by a day and other years it was late by a day.[74]

Keeping in mind the problematic nature of how the ancient Jewish calendar was determined and how it was periodically off, it becomes evident that modern astronomical calculations for when a new month or Passover ought to have occurred cannot determine when it actually occurred. Furthermore, every few years an intercalary month was added to preserve the seasonal nature of the months, since the lunar calendar employed by the Jews was short by about eleven days per year (354 days); because we know very little about which years the intercalary month was added and the exact ramifications this had on the overall calendar, this is yet another obstacle to modern astronomical reconstructions. The implication of this is that we cannot know for certain when exactly Passover preparation or Passover would have been celebrated in any given year between AD 26 and 36. Therefore, we cannot know with any degree of certainty in which year Jesus died. If the month of Nisan in which Jesus was crucified was early by a day, or even two, or late by just one day, then a number of possibilities emerge (assuming the day of the week was Friday, or possibly even Thursday, allowing for Chadwick's argument).

Year	Theoretical date for 14th Nisan (Following Gospel of John date for Crucifixion)	Possible dates of Actual 14th Nisan (allowance made for up to two days early or one day late observational error)	Years when Crucifixion could fall on Friday or Thursday
AD 27	Thursday	Tuesday to Friday	✓
AD 28	Tuesday	Sunday to Wednesday	✗
AD 29	Sunday	Friday to Monday	✓
AD 30	Friday	Wednesday to Saturday	✓
AD 31	Tuesday	Sunday to Wednesday	✗
AD 32	Sunday	Friday to Monday	✓
AD 33	Friday	Wednesday to Saturday	✓
AD 34	Wednesday	Monday to Thursday	✓

With the exception of AD 28 or 31, every other year between AD 27 and 34 cannot be decisively ruled out. If we link this finding with the Book of Mormon evidence that Jesus lived between thirty-two and thirty-four years (compare Gospel of John) or the synoptic Gospels that present a roughly one-year ministry for Jesus and presuppose a lifespan of about thirty-one years, and subtract this from the above dates to arrive at his birth date, we have the following possible dates:

Death Year	Birth Year Based on Book of Mormon evidence (compare Gospel of John), assuming a 33-year life span)[75]	Birth Year Based on synoptic life span of roughly 31 years
AD 27	8–9 BC	6 BC
AD 29	6–5 BC	2 BC
AD 30	5–4 BC	1 BC
After AD 31[76]	4–3 BC	AD 1

The implications of this should be clear. If the calendar was early by one or two days, or late by only one day, then the dating of Christ's death by reference to modern astronomical calculations of when 14 Nisan should have occurred is not very helpful. The combined evidence of the Book of Mormon and the Gospels seems to prefer a death date around AD 29 or 30 and the beginning of the ministry around AD 27, thus pushing the birth date to approximately 6–5 BC.

Two Final Issues: Elizabeth's Pregnancy and Doctrine and Covenants 20

Chadwick interpreted Luke 1:26—"And in the sixth month the angel Gabriel was sent from God unto a city of Galilee, named Nazareth"—in a unique way that has implications for the birth date of Jesus. He understood it to refer to the sixth month of the year.[77] Based on this unique reading, Chadwick claims he is able to determine the precise month of the birth of John and ultimately Jesus. He argues that Luke 1:26, which reports that "in the sixth month the angel Gabriel was sent from God," coincides with the month of Adar (February/March) in the spring and reinforces a December birth for Jesus because it would be either nine or ten months until December (the typical length of a birth).[78] However, there are a couple of very significant problems with this interpretation. First, during the time of Christ the "sixth month" in the Jewish calendar did not correspond to the month of Adar; the "sixth month" most often corresponded to Elul (August/September).[79] Josephus identifies the "sixth month" as Elul, and the *Megillat Ta'anit* (Scroll of Fasting), which was written in either the first or second century AD and is the earliest document listing all the Jewish months in succession, also marks the "sixth month" as Elul.[80] Furthermore, from these same sources it is clear that Adar was regularly regarded as the "twelfth month" in the first century.[81] Therefore, if we are to suppose that the reference here to the "sixth month" indeed refers to the actual month of the year, then Jesus would have been born in June and not December.[82]

Far more importantly, however, the reference to the "sixth month" in Luke 1:26 does not actually refer to a month of the year but rather has reference to the fact that Elizabeth was six months pregnant when Mary was visited by Gabriel (Luke 1:24–26): "And after those days his wife Elisabeth conceived, and hid herself *five months*, saying, Thus hath the Lord dealt with me in the days wherein he looked on *me*, to take away my reproach among men. And in the *sixth month* the angel Gabriel was sent from God unto a city of Galilee, named Nazareth" (emphasis added). It is relatively obvious that the reference in verse 26 is a follow-up from the reference to "five months" in verse 24. This interpretation becomes even more apparent when one reads to verse 36, where the "sixth month" being referred to has nothing to do with the month of the year but rather to the timing of Elizabeth's pregnancy: "And, behold, thy cousin Elisabeth, she hath also conceived a son in her old age: and *this is the sixth month with her*, who was called barren" (emphasis added).

A final piece of evidence that is sometimes popularly used to indicate the birth year of Jesus is the statement made in Doctrine and Covenants 20:1: "The rise of the Church of Christ in these last days, being one thousand eight

hundred and thirty years since the coming of our Lord and Savior Jesus Christ in the flesh, it being regularly organized and established agreeable to the laws of our country, by the will and commandments of God, in the fourth month, and on the sixth day of the month which is called April." To Chadwick's credit, he treats this verse, and the potential implications it has for Jesus's birth date, carefully and discusses the various interpretations offered by LDS scholars with specific attention paid to how D&C 20:1 has played into the discussion.[83] In his analysis, he makes the important observation that whenever April 6 is mentioned as being the birth date of the Lord, it is almost certainly based on D&C 20:1. However, based on new evidence published as part of the Joseph Smith Papers Project, Chadwick further observes that verse 1 "is not part of the revelation proper."[84] From the surviving evidence, it appears that verse one was added at a later date and possibly in the wording of John Whitmer, to reflect the date the Church was organized rather than as a revealed statement on the Lord's day of birth.[85]

Conclusion

As stated previously, extraordinary claims require extraordinary evidence, and perhaps the only thing that can be agreed upon with respect to the evidence concerning Jesus's birth date is that it is extraordinarily complex. To offer a compelling case regarding the date of Jesus's birth, one must exclude certain pieces of information as well as weight some pieces of evidence as more important than others. While we appreciate Chadwick's attempt to untangle this Gordian knot, we ultimately feel that the argument that Jesus was born in December of 5 BC is flawed and does not adequately take account of all the diverse evidence. In all likelihood, the evidence supporting Jesus's birth probably cannot justify more than to say that Jesus was born before Herod "the Great" passed away in the spring of 4 BC and probably not any earlier than 6 BC, and that he died under the prefecture of Pontius Pilate. An ambiguous solution is at times frustrating to many readers, but until further evidence comes forward, our current sources will permit only opinions beyond those boundaries.

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State University Collection," *Tyche* 26 (2011): 33–39; "A Text-Critical Comparison of the King James New Testament with Certain Modern Translations," *Studies in the Bible and Antiquity* 3 (2011): 67–127; "A Gold *Lamella* with a Greek Inscription in the Brigham Young University Collection," *Zeitschrift für Papyrologie und Epigraphik* 177 (2011): 166–68.

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We would like to thank the anonymous reviewers of this article for their candid and insightful feedback as well as the editors of *BYU Studies Quarterly* for accepting this article. We have generally resisted using Greek and Latin in this article so as to make it more readable for the lay reader. Whenever such languages do appear, we have provided an English translation.

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

2. For a convenient compilation of the writings of the Apostolic Fathers, see Michael W. Holmes, ed. and trans., *The Apostolic Fathers: Greek Texts and English Translations,* 3d ed. (Grand Rapids, Mich.: Baker Academic, 2007).

3. Ignatius, *Epistle to the Ephesians* 19.1–2, in Holmes, *Apostolic Fathers*, 197–99.

4. Justin, *Dialogue with Trypho* 77.4–78.7, in *Ante-Nicene Fathers,* ed. Alexander Roberts and James Donaldson, 10 vols. (Peabody, Mass.: Hendrickson, 1994), 1:237–38, hereafter cited as *ANF*; Justin, *First Apology* 34, in *ANF,* 1:174.

5. Justin, *First Apology* 46, in *ANF,* 1:178.

6. On interpreting this reference generally and not specifically, see Leslie William Barnard, ed. and trans., *St. Justin Martyr: The First and Second Apologies,* in *Ancient Christian Writers,* no. 56, ed. Walter J. Burghardt, John J. Dillon, and Dennis D. McManus (New York: Paulist Press, 1997), 158 n. 291.

7. Even if one were to suppose that Justin was using "one hundred and fifty years" very precisely to refer to the birth date of Jesus, it would still be a problematic reference, since the date of his *First Apology* cannot be determined with precision. On internal evidence, Justin's *First Apology* cannot be dated any more securely than between AD 151 and 155. See Barnard, *St. Justin Martyr: The First and Second Apologies*, 11.

8. Irenaeus, *Against Heresies* 3.21.3, in *ANF,* 1:452.

9. On calculating regnal years of Roman emperors, see Elias J. Bickerman, *Chronology of the Ancient World,* 2d ed. (Ithaca, N.Y.: Cornell University Press, 1982), 66–67.

10. Information about the reign of Herod will be given shortly, since his death provides a solid *terminus post quem* for the birth date of Jesus.

11. Clement, *Miscellanies* 1.21, in *ANF,* 2:333.

12. Livia Capponi, *Augustan Egypt: The Creation of a Roman Province* (New York: Routledge, 2005), 5–12.

13. Tertullian, *Against the Jews* 8, in *ANF,* 3:159–60.

14. Translation taken from *ANF,* 6:137–38.

15. The translation provided in the *ANF* is a little misleading since it speaks of the "advent of the Lord," which could give the impression that this passage was referring to the year Jesus was born. The word translated here as "advent" is the Greek παρουσίαν, which means "coming" or "presence" and does not necessarily imply birth.

16. Olympiads were four-year cycles used for reckoning that commenced in the year 776 BC. The first Olympiad would thus be 776–773 BC.

17. For a list of all the Olympiad cycles converted to modern reckoning, see Bickerman, *Chronology of the Ancient World*, 115–22.

18. The year 1 BC was intended to designate the year before Jesus was born. There was no year designated as "0."

19. Eusebius, *Ecclesiastical History,* 1.5.1–2, in *Nicene and Post-Nicene Fathers,* ed. and trans. Philip Schaff and Henry Wace, Second Series, 14 vols. (New York: The Christian Literature Company, 1890), 1:88, hereafter cited as *NPNF.*

20. Eusebius's *Chronicle* survives only via a later Latin translation by Jerome. For this reference, see Jerome, *Ab Abr*. CXCIIII, taken from Iohannes K. Fotheringham, ed., *Eusebii Pamphili Chronici Canones* (London: Oxford, 1923), 251.

21. Both Epiphanius (*Panarion* 51.22.22, in *The Panarion of Epiphanius of Salamis, Books II and III,* trans. Frank Williams [Leiden: Brill, 1994], 53) and Orosius (*Seven Books of History against the Pagans* 1.1, ed. and trans. Roy J. Deferrari [Washington, D.C.: Catholic University of America, 1964], 6) date the birth to 2 BC: the forty-second year of Augustus.

22. John Malalas, *Chronicle* 10.1: "In the 42nd year and the fourth month of the reign of Augustus our Lord God Jesus Christ was born, eight days before the Kalends of January, on 25th December, at the seventh hour of the day, in a city of Judaea named Bethlehem, which is near Jerusalem." Translation taken from Elizabeth Jeffreys, Michael Jeffreys, and Roger Scott, trans., *The Chronicle of John Malalas: A Translation*, Australian Association for Byzantine Studies 4 (Melbourne: University of Melbourne Press, 1986), 121.

23. Notwithstanding the title of this table, Clement did not actually propose a date for the birth of Christ but merely related what certain other Christians had been proposing.

24. Matthew 2:15, 19: "And was there [Egypt] until the death of Herod: that it might be fulfilled which was spoken of the Lord by the prophet, saying, Out of Egypt have I called my son. . . . But when Herod was dead, behold, an angel of the Lord appeareth in a dream to Joseph in Egypt." Luke 1:5: "There was in the days of Herod, the king of Judaea, a certain priest named Zacharias, of the course of Abia: and his wife was of the daughters of Aaron, and her name was Elisabeth." All biblical quotations will come from the KJV unless otherwise noted.

25. There is compelling evidence, at least by ancient standards, to believe that Herod did indeed die no later than the spring of 4 BC. See Emil Schürer, *The History*

of the Jewish People in the Age of Jesus Christ, 3 vols., rev. and ed. Geza Vermes, Fergus Millar, and Matthew Black (Edinburgh: T & T Clark, 1973), 1:320–29; P. M. Bernegger, "Affirmation of Herod's Death in 4 B.C.," *Journal of Theological Studies,* n.s. 34 (1983): 526–31; Raymond E. Brown, *The Birth of the Messiah* (New York: Doubleday, 1977), 166–67; T. D. Barnes, "The Date of Herod's Death," *Journal of Theological Studies,* n.s. 19 (1968): 204–9. In Josephus's account of Herod's death, he reports that Herod died shortly after a lunar eclipse and a little while before Passover. A partial eclipse took place on a date coinciding with March 13, 4 BC, which would have been about 28–29 days before the Passover.

26. Notwithstanding the inaccuracy, this article will employ AD chronology to avoid confusion.

27. Much ink has been spilled on this subject. For an up-to-date analysis of Dionysius's reckoning according to the *anno domini* era with pertinent bibliography, see Bonnie J. Blackburn, *The Oxford Companion to the Year* (New York; Oxford: Oxford University Press, 1999), 772–82, 801–28.

28. On the meaning of παιδίον as "little or young child," deliberately distinguished from "baby" or "newborn," see Henry George Liddell and Robert Scott, *An Intermediate Greek-English Lexicon* (Oxford: Clarendon Press, 1889), s.v. παιδίον.

29. Barbara Levick, *Tiberius the Politician* (London: Thames and Hudson, 1976), 63; Victor Ehrenberg and A. H. M. Jones, *Documents Illustrating the Reigns of Augustus and Tiberius,* 2d ed. (Oxford: Clarendon Press, 1955), 54; Suetonius, *Tiberius*, 20.1; 21.1; Velleius, 2.121; Ovid, *Ep. ex Ponto* 2.1; 2.2; 3.3, 85.

30. Clearly, Tertullian used the date of Tiberius's reign to calculate a date. See Tertullian, *Against Marcion* 1.15, in *ANF,* 3:282. See Rainer Riesner, *Paul's Early Period: Chronology, Mission Strategy, Theology*, trans. Doug Stott (Grand Rapids: Eerdmans, 1998), 39–40; Dio Cassius, *History* 56.28, in *Dio's Roman History,* trans. Earnest Cary, 9 vols. (Cambridge, Mass.: Harvard University Press, 1955), 7:63.

31. P. A. Brunt and J. M. Moore, eds., *Res Gestae Divi Augusti: The Achievements of the Divine Augustus* (Oxford: Oxford University Press, 1967), 10; Ronald Syme, *The Roman Revolution* (Oxford and New York: Oxford University Press, 1939), 336.

32. The peculiarity of the language ("was first made") raises some question concerning what Luke intended. Luke probably intended to convey the datum that this was the first census of Judea and that it was carried out like the others. Compare Schürer, *History of the Jewish People,* 1:406–17. See also Brown, *Birth of the Messiah*, 412–18.

33. François Bovon, *Luke 1* (Minneapolis: Fortress Press, 2002), 83–84; Brook W. R. Pearson, "The Lucan Censuses, Revisted," *Catholic Biblical Quarterly* 61, no. 2 (1999): 262–82.

34. P. Benoit, "Quirinius (Recensement de)," *Dictionnaire de la Bible: Supplément* 9 (1979): 693–720, wrestles with the possibilities of harmonizing the two accounts. For scholarly discussion of resolving Luke's seemingly difficult reference to Cyrenius, see J. M. Rist, "Luke 2:2: Making Sense of the Date of Jesus' Birth," *Journal of Theological Studies n.s.* 56 (2005): 490–1; compare Tertullian, *Against Marcion* 4.19, in *ANF,* 3:377–78.

35. Josephus, *War of the Jews* 1.21; *Antiquities of the Jews* 15.11, in William Whiston, trans., *The Works of Josephus* (Peabody, Mass.: Hendrickson, 1987), 575, 423.

36. Karl P. Donfried, "Chronology," in *Anchor Bible Dictionary*, ed. David Noel Freedman, 6 vols. (New York: Doubleday, 1992), 1:1014.

37. Chadwick, "Dating the Birth of Jesus Christ," 18–20, 25, also sees the Book of Mormon as a key piece of evidence in determining the birth year of Jesus. The weakness in Chadwick's argument is that he fails to account for the many variables in Nephite chronology.

38. Chadwick, "Dating the Birth of Jesus Christ," 18.

39. According to Brant Gardner, *Second Witness: Analytical and Contextual Commentary on the Book of Mormon* (Salt Lake City: Greg Kofford Books, 2007), 1:362–63, the consensus of Mesoamericanists looking at the Book of Mormon (Sorenson, Clark, Gardner) is that the Nephite calendar is in some way related to the Mesoamerican *tun* year rather than the *haab* year. Sorenson argues this because the six-hundred-year prophecy works in *tun* years but does not work in *haab* years. John L. Sorenson, *An Ancient American Setting for the Book of Mormon* (Salt Lake City: Deseret Book; Provo, Utah: FARMS, 1985), 272–73. Clark argues this because four-hundred-year prophecies work out in *tun* years but not in *haab* years. John E. Clark, "Archaeology, Relics, and Book of Mormon Belief," *Journal of Book of Mormon Studies* 14, no. 2 (2005): 46–47. Chadwick appears confused on this issue. Chadwick, "Dating the Birth of Jesus Christ," 35, n. 51, 52.

40. Jay H. Huber, "Lehi's 600-Year Prophecy and the Birth of Christ," FARMS Preliminary Report, 1983, 11–35; J. Pratt, "Book of Mormon Chronology," *Encyclopedia of Mormonism*, ed. Daniel H. Ludlow, 4 vols. (New York: Macmillan, 1992), 1:169–171; R. F. Smith, "Book of Mormon Event Structure: The Ancient Near East," *Journal of Book of Mormon Studies* 5, no. 2 (1996): 98–147; D. R. Seely, "Chronology, Book of Mormon," in *Book of Mormon Reference Companion*, ed. Dennis L. Largey (Salt Lake City: Deseret Book, 2003), 196–204; See John L. Sorenson, "Seasonality of Warfare in the Book of Mormon and in Mesoamerica," in *Warfare in the Book of Mormon,* ed. Stephen Ricks and William Hamblin (Salt Lake City: Deseret Book; Provo, Utah: FARMS, 1990), 445–77; John L. Sorenson, "Seasons of War, Seasons of Peace in the Book of Mormon," in *Rediscovering the Book of Mormon,* ed. John L. Sorenson and Melvin Thorne (Salt Lake City: Deseret Book; Provo, Utah: FARMS, 1991), 249–55; John L. Sorenson, "The Nephite Calendar in Mosiah, Alma, and Helaman" in *Reexploring the Book of Mormon*, ed. John W. Welch (Salt Lake City: Deseret Book, 1992), 173–75; Randall P. Spackman, *Introduction to Book of Mormon Chronology: The Principal Prophecies, Calendars, and Dates* (Provo, Utah: FARMS, 1993); Randall P. Spackman, "The Jewish/Nephite Lunar Calendar," *Journal of Book of Mormon Studies 7*, no. 1 (1998): 48–59, available online at http://maxwellinstitute.byu.edu/publications/jbms/?vol=7&num=1&id=170.

41. Spackman, "Jewish/Nephite Lunar Calendar," 51, 54, resolves this discrepancy through recourse to a lunar calendar: "If the Nephites measured the 600-year period preceding Christ's birth with a lunar calendar composed of twelve 'moons,' there is no discrepancy at all in the counting of 600 years. A twelve-moon calendar averages only 354.367 days per year, eleven days fewer than a solar calendar, which averages 365.2422 days per year. Between 597 BC and 5 BC, ample time existed for this lunar calendar to measure all 600 years." Spackman does note some problems with this solution as well: "There were not enough days to count all 600 years prophesied by Lehi unless the twelve-moon calendar was maintained religiously for nearly 275 years before the change was adopted."

42. To definitively appreciate the complexity of this issue, one must decide the first year of the reign of Zedekiah (see 1 Ne. 1:4; Mormon's introduction to 3 Nephi),

which is usually dated to 597 BC, and the birth of Christ, which must have taken place between 7 and 5 BC. This would mean that 600 Nephite years would correlate to roughly 591 modern years.

43. Chadwick criticizes such a loose assessment of the evidence when he states, "Thomas A. Wayment maintains that 'the time period between the sign of Jesus's birth and the signs of his death was thirty-four years,' and then adds parenthetically 'thirty-three years if counted inclusively.' . . . But a thirty-four year count is not correct. 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." Chadwick, "Dating the Birth of Jesus Christ," 35 n. 50. 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. In other words, if the sign happened in the sixth month of the Nephite calendar, the reckoning may actually be made to the first month of the calendar and not the moment of the sign. See 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), 393.

44. It seems that Chadwick also uses caution with some Book of Mormon calendric evidence: "A flexible reading of the Book of Mormon regarding the length of Jesus's life, one that does not arbitrarily impose the idea that Jesus lived exactly thirty-three years and no more, would allow for his birth to have occurred in December of 5 BC." At other times, the Book of Mormon evidence is exact. Chadwick, "Dating the Birth of Jesus Christ," 21.

45. Chadwick, "Dating the Birth of Jesus Christ," 17–18, fails to account for the evidence in his assertions: "It must be noted, however, that . . . the Book of Mormon may be relied upon for accuracy in its report for the length of Jesus's life" and "Jesus lived thirty-three full years, not a year more or a year less."

46. Chadwick, "Dating the Birth of Jesus Christ," 25.

47. Ancient Christian authors typically stated that Jesus's death coincided with the consular year of Rubellius Geminus and Fufius Geminus, which corresponded to AD 29. See Tertullian, *Against the Jews* 8, *ANF,* 3:160; Lactantius, *Of the Manner in Which the Persecutors Died* 2.1, in *The Works of Lacantius,* trans. William Fletcher, 2 vols. (Edinburg: T & T Clark, 1872), 2:165. Estimates in modern scholarship for the exact timing of Jesus's death range anywhere from AD 27 to AD 36, with the years AD 30 and 33 receiving preference. See J. Finegan, *Handbook of Biblical Chronology* (Peabody, Mass.: Hendrickson, 1998), 353–69.

48. For a list of Roman prefects, see Schürer, *History of the Jewish People,* 1:357–98.

49. Though the discord in the Gospels on this point will not be treated here, some have speculated that perhaps John thought Jesus was crucified on the day of Passover preparation because he portrays him as the "lamb of God," and so it would be fitting that the true "Lamb of God" would die at the very same time that the lambs for the Passover meal were being slaughtered on the day of Passover preparation (see John 1:29, 36).

50. Chadwick, "Dating the Birth of Jesus Christ," 15: "All four New Testament gospels appear to report that Jesus's death occurred on the day of the Passover preparation, when lambs for the festival were being sacrificed."

51. Chadwick, "Dating the Birth of Jesus Christ," 15, 25, largely argues against the evidence when he claims, "Tradition holds that Jesus died on a Friday, but alternative models have suggested Thursday as a more probable day." In order to make this type of claim, one would have to completely discount the historical accuracy of the synoptic Gospels. Chadwick moves everything backward one day so the Last Supper is now held on Wednesday evening, instead of Thursday evening, and Jesus is crucified on Thursday, an alleged day of Passover preparation, instead of Friday. The reasoning behind this move is so that he can argue that Jesus died on a date coinciding with Thursday, April 6, AD 30. Chadwick's selection of this date is based on the work of Colin J. Humphreys and W. G. Waddington, who point out, based on modern astronomical calculation, that the day of 14 Nisan (the day of Passover preparation) would have fallen on Thursday, April 6, in AD 30. See Colin J. Humphreys and W. G. Waddington, "Dating the Crucifixion," *Nature* 306 (December 22, 1983): 743–46. Chadwick, p. 16, reproduces the table of possible dates for 14 Nisan between AD 26 and 36 based on astronomical calculations given on p. 744 of the article. Interestingly, in contrast to Chadwick's conclusion of AD 30, Humphreys and Waddington settle for a death date of AD 33 since it was the only year during Pilate's tenure that Passover preparation (theoretically) fell on a Friday, and since Jesus died on a Friday, according to the Gospels, this must have been the date of his death. Humphreys and Waddington here prefer the timing given in John at the expense of the evidence from the synoptics.

52. The reason for the urgency here is based on Deuteronomy 21:22–23, where bodies hung on a tree (interpreted as a cross here) should not remain overnight but should be taken down and buried before nightfall.

53. Mark 15:42–43: "And now when the even was come, because it was *the preparation, that is, the day before the sabbath*, Joseph of Arimathaea, an honourable counsellor, which also waited for the kingdom of God, came, and went in boldly unto Pilate, and craved the body of Jesus." Luke 23:53–54: "And he took it [Jesus's body] down, and wrapped it in linen, and laid it in a sepulchre that was hewn in stone, wherein never man before was laid. And that day was the *preparation, and the sabbath drew on*" (emphasis added).

This interpretation for "preparation" in the synoptics becomes even more evident when one realizes that in these Gospels the Passover meal has previously been eaten (see above Matthew 26:17; Mark 14:12; Luke 22:7–8, 15). On this point see the excellent discussion in Raymond E. Brown, *The Death of the Messiah: From Gethsemane to the Grave: A Commentary on the Passion Narratives in the Four Gospels,* 2 vols. (New York: Doubleday, 1994), 2:1173–74. Chadwick, "Dating the Birth of Jesus Christ," 33 n. 42, erroneously argues that the "preparation" referred to in the synoptics has to do with the preparation for the Passover, but this is impossible as the Passover has already been eaten by Jesus and the disciples on the previous night.

54. Whenever the term Sabbath is used in John, it always refers to the actual day of Sabbath (Friday sundown to Saturday sundown) and not to the beginning of a festival held on another day of the week: John 5:9–10, 16, 18, 7:22–23, 9:14, 16. However, in the Old Testament, "Sabbath" is occasionally used as a reference for some festivals: Feast of Trumpets, Feast of Tabernacles (see Leviticus 23). Passover

is described as a day on which no work/labor should be performed (Sabbath-like). This does not mean, however, that Passover was necessarily referred to as a "Sabbath" regardless of the day of the week it occurred, such as a Thursday or a Friday.

55. This designation (High Sabbath) is without precedent in Jewish literature. See Israel Abrahams, *Studies in Pharisaism and the Gospels,* 2 vols. (New York: KTAV reprint, 1967), 2:68.

56. Chadwick, "Dating the Birth of Jesus Christ," 33 n. 44, makes a rather tenuous argument that a Thursday death for Jesus is more convincing since it would more directly fulfill a prophecy uttered by Jesus in Matthew 12:40: "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." Chadwick contends that if Jesus died on Friday then he would be dead only three days (technically but not fully) but would not be dead three nights (only two). However, since Matthew 12:40 is a partial quote of Jonah 1:17 (LXX Jonah 2:1), wherein it is 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. This is the only reference in the Gospels to Jesus being dead "three nights." Here Jesus draws an analogy between his death and Jonas's time in the belly of the fish: it is not overtly an exact statement of the number of hours that Jesus would spend in the tomb. The point of an analogy is not that it has to be absolutely congruent in every respect but that an adequate comparison can be made and recognized by the audience. Furthermore, it has long been noted in scholarship 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. The classic study on this front is by Krister Stendahl, *The School of St. Matthew, and Its Use of the Old Testament* (Philadelphia: Fortress Press, 1968).

57. We are inclined to agree with Chadwick in preferring Nisan 14 instead of Nisan 15 for the day of Crucifixion, since it seems less likely that Jesus would have been crucified on Passover, which would have been a profanation of a holy day (see Ex. 12:16; Lev. 23:5–8). As do most scholars, however, who favor Nisan 14 (John's chronology), we also favor a Friday death.

58. Humphreys and Waddington, "Dating the Crucifixion," 743–46.

59. In a rather convoluted argument, they attempt to connect this lunar eclipse with Acts 2:20 (quote of Joel 2:31), where it states that the moon will be like "blood," and then try to relate this to the Crucifixion. At the Crucifixion, the synoptic Gospels report that there was darkness for the space of three hours (sixth to ninth hour = 12:00 PM to 3:00 PM; see Matt. 27:45; Mark 15:33; Luke 23:44). Lunar eclipses do not create darkness, only solar eclipses do, and the latter only last for minutes (not three hours).

60. Chart adapted from Humphreys and Waddington, "Dating the Crucifixion," 744.

61. H. Kimball Hansen, "Concerning Astronomical References Found in the Scriptures," in *Converging Paths to Truth*, ed. Michael D. Rhodes and J. Ward Moody (Salt Lake City: Deseret Book; Provo, Utah: BYU Religious Studies Center, 2011), 49–55.

62. Sacha Stern, *Calendar and Community: A History of the Jewish Calendar Second Century BCE—Tenth Century CE* (Oxford: Oxford University Press, 2001),

113; compare B. Z. Wacholder and D. B. Weisberg, "Visibility of the New Moon in Cuneiform and Rabbinic Sources," *Hebrew Union College Annual* 42 (1971): 227–42.

63. For the fallacies associated with relying on astronomical recalculations to determine the absolute dates of Passover festivals during the time of Jesus, see Roger Beckwith, *Calendar and Chronology, Jewish and Christian: Biblical, Intertestamental and Patristic Studies* (Brill: Boston; Leiden, 2001), 278–82. Beckwith directly addresses the points raised in Humphreys and Waddington, "Dating the Crucifixion."

64. A lunar calendar is 354 days, whereas a solar calendar is 365.The most common definition of a new moon is when the crescent becomes visible for the first time. Lunar months fluctuate between 29 days and 6½ hours and 29 days and 20 hours.

65. Roger Beckwith, *Calendar and Chronology*, 276–96, especially 279.

66. Credible witnesses excluded women, slaves, and persons who played with dice, practiced usury, raced pigeons, and traded produce during sabbatical years. See *Rosh Hashanah* 1:8, in *The Mishnah: A New Translation,* trans. Jacob Neusner (New Haven, Conn.: Yale University Press, 1988), 300–301.

67. *Rosh Hashanah* 2:8, in Neusner, *Mishnah,* 302.

68. *Rosh Hashanah*, 1:3–4:8, in Neusner, *Mishnah,* 300–307.

69. L. E. Doggett and B. E. Schaefer, "Lunar Crescent Visibility," *Icarus* 107 (1994): 388–403.

70. On the evidences for errors and discrepancies occurring in the ancient Jewish observational calendar, see the lucid study by Stern, *Calendar and Community*, 4–154.

71. Socrates, *Ecclesiastical History* 1.9, in *The Ecclesiastical History of Socrates,* trans. Valesius (London: George Bell and Sons, 1892), 33, italics added.

72. Stern, *Calendar and Community*, 80–84; compare Beckwith, *Calendar and Chronology*, 69.

73. The codex that contains these proceedings dates to c. AD 700. See W. Telfer, "The Codex Verona LX (58)," *Harvard Theological Review* 36 (1943): 181–82.

74. For analysis of the dates of Passover listed in this document, see Stern, *Calendar and Community*, 124–32, 146.

75. These figures are derived by subtracting 33 to 34 years from the death date. See discussion of Book of Mormon evidence above.

76. All dates after and including AD 31 are too late to account for a birth under Herod (who died in spring of 4 BC). A death date after AD 42 would account for a census under Cyrenius (AD 6–7).

77. Chadwick, "Dating the Birth of Jesus Christ," 36 n. 55. Curiously, Chadwick insists that this interpretation is "common" but never cites one example to establish this claim.

78. Chadwick, "Dating the Birth of Jesus Christ," 21–22.

79. Schürer, *History of the Jewish People,* 1:587–88.

80. See Josephus, *Antiquities of the Jews* 13.9.1, in Whiston, *Works of Josephus,* 352, where it is clear from the context of this passage that the "sixth month" is Elul. The *Megillat Ta'anit* is divided into twelve chapters that correspond with the twelve months of the year. Chapter 1 deals with the first month, Nisan, and chapter 12 deals with the last month, Adar. "Megillat Ta'anit ('The Scroll of Fasting')," JewishEncyclopedia.com, http://www.JewishEncyclopedia.com/articles/10555-megillat-ta-anit/.

81. Josephus, *Antiquities of the Jews* 11.4.7, in Whiston, *Works of Josephus, 293*: "And in the ninth year of the reign of Darius, on the twenty-third day of the twelfth month, which is by us called *Adar*, but by the Macedonians *Dystrus*." Compare *Antiquities of the Jews* 11.6.12–13, in Whiston, *Works of Josephus,* 304. Esther 3:7: "In the first month, that is, the month Nisan, in the twelfth year of king Ahasuerus, they cast Pur, that is, the lot, before Haman from day to day, and from month to month, to the twelfth month, that is, the month Adar." Chadwick seems to be reckoning from *Rosh Hashanah* in the fall to make Adar the sixth month. It is not at all apparent, despite Chadwick's assurances, that the "sixth month" usually corresponded to Adar in the first century. Granted, in the Mishnah, a third century AD compilation of Jewish law, in *Rosh Hashanah* 1:1 it states that there could be four different New Years (Nisan, Elul, Tishri, Shebat). See Herbert Danby, trans., *The Mishnah* (Oxford: Oxford University Press, 1933), 188.

82. For a judicious analysis of the reference to the "sixth month" in Luke 1:26 within the narrative flow of the whole chapter, see the excellent commentary by Bovon, *Luke 1*, 42–53.

83. Chadwick, "Dating the Birth of Jesus Christ," 6–10.

84. Chadwick, "Dating the Birth of Jesus Christ," 28 n. 12. See Robin Scott Jensen, Robert J. Woodford, and Steven C. Harper, eds., *Manuscript Revelation Books*, facsimile edition, first volume in the Revelations and Translations series of *The Joseph Smith Papers,* ed. Dean C. Jessee, Ronald K. Esplin, and Richard L. Bushman (Salt Lake City: Church Historian's Press, 2009), 75.

85. See Chadwick, "Dating the Birth of Jesus Christ," 28 n. 12.