

Stars and Shepherds

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Here we are in November, and the usual Christmas frenzy is already apparent in all the shops. We will soon be sending and receiving Christmas cards. Here is a scene that has now become a fairly stereotypical view of Christmas in the twenty first century, but how Biblically accurate is this?

History, scripture and astronomy help us to gain a new and better understanding of the story of Christ's birth, including the date of his birth, the journey of the magi, that famous star, Joseph and Mary's trip to Bethlehem, the fabled inn, the message of the angels, the nearby shepherds, the swaddling cloths, and even the manger in which the saviour was laid. We will examine all of these things in some detail.



Date of Christ's birth

First of all, let us look at the date of Christ's birth. The early church does not appear to have celebrated the birth of Christ at all,¹ but interest started in the second century about exactly when this might have occurred. By the fourth century, those in the western Roman Empire picked December 25th, and January 6th by those in the East. Eventually December 25th became the chosen date, but one may ask, Why? One popular theory was that it was also the midwinter Roman Saturnalia festival. That, together with Emperor Aurelian establishing the feast of the birth of the Unconquered Sun on December 25th, led our forebears decided to use this date, and no-one has argued for change.

¹ <https://www.biblicalarchaeology.org/daily/people-cultures-in-the-bible/jesus-historical-jesus/how-december-25-became-christmas>

It is interesting that, despite great details about other events in the Bible giving precise dates and times, these details of Christ's birth are not recorded. The Bible is silent about the year, and even the time of year. Perhaps we might conclude that we don't need to know, but hints are given that encourage us to look further. I would like us to consider that it may have been September in 3BCE.

For some time it has been thought that Christ was born in 4-6BCE, mainly based on a comment by Josephus, who states that there was a lunar eclipse shortly before Herod died.² This was thought to be the eclipse of March 13, 4BCE, and so Christ would have had to have been born before this date. However, this discounts the lunar eclipse on January 9th, 1BCE. NASA records show it occurring as a total eclipse, visible in Jerusalem.³ This means that it is possible that Herod died later than originally thought and if so, Christ could have been born any time before 1BCE. This is further supported by other historical information, including the amount of time Herod served after his appointment, and after conquering Jerusalem.⁴

The Gospel of Luke gives us additional clues by giving great detail as to when Zechariah was on duty in the Temple.

When Herod was king of Judea, there was a Jewish priest named Zechariah. He was a member of the priestly order of Abijah, and his wife, Elizabeth, was also from the priestly line of Aaron. (Luke 1:5, NLT)

One day Zechariah was serving God in the Temple, for his order was on duty that week. As was the custom of the priests, he was chosen by lot to enter the sanctuary of the Lord and burn incense. (Luke 1:8-9)

This is sufficient information for determining the courses of the Priests serving in the temple to be traced back through 2Chronicles, Exodus and Ezra, giving a time frame in which John the Baptist would have been born, and by extension, Christ's birth six months afterwards. This reckoning is explained in detail by the late historian Dr Martin Elm, who concludes that

² Antiquities of the Jews 17.6.4

³ <https://eclipse.gsfc.nasa.gov/JLEX/JLEX-AS.html>

⁴ <https://strangenotions.com/jesus-birth-and-when-herod-the-great-really-died>

John the Baptist was born around March 10th 3 BCE, and therefore Christ must have been born in September of that year.⁵

The census

The next piece of evidence is the census that called Joseph and Mary to Bethlehem. Luke tells us,

At that time the Roman emperor, Augustus, decreed that a census should be taken throughout the Roman Empire. (This was the first census taken when Quirinius was governor of Syria.) (Luke 2:1–2)

Census taking was a regular practice in the Roman Empire, and several are recorded. One mentioned by Josephus⁶ (and referenced in Acts 5:37) was in 6AD, but clearly too late to be at the time of Christ's birth. What there does not appear to be is a census that fits in with Quirinius being Governor of Syria. There is a record that an "oath of obedience" to Augustus was demanded of all people in Judaea in 3 BCE, which would have required Joseph and Mary to report to Jerusalem. This was the first time this type of oath of obedience was made. It was taken as a stage in tax assessment⁷ and fits in with the Authorised Version saying, *all the world should be taxed* (Luke 2:1). A summary about the date of the census is dealt with from an archaeological standpoint in a video, *Digging for Truth – Caesar Augustus and the Birth of Christ*.⁸ Unless and until further evidence comes to light, the debate about the census continues!

The Magi

Finally, Matthew tells us of the Magi who came to Herod saying,

Where is the one who is born king of the Jews? For we saw his star when it rose and have come to worship him. (Matt 2:2 NET)

The Magi – traditionally three, but actually no number is given in the Bible – had seen activity in the stars and believed it heralded a new Jewish king. Strong's concordance says that

⁵ <https://www.askelm.com/star/star006.htm>

⁶ Antiquities of the Jews, 17.1.1

⁷ <https://jcalebjones.com/2020/10/27/solving-the-census-of-quirinius>

⁸ <https://www.youtube.com/watch?v=WBp2Y3ASggQ>

this word ‘Magi’ (Gk 3097) means an astrologer or magician, and it is translated as such in the NIV and other versions describing Elymas the Magician in Acts. So were the Magi ‘reading’ the stars as astrologers, and believing they could see signs that a Jewish king had been born? Or were they Bible scholars seeing signs in the heavens and searching the Scriptures for the answer? I think the latter, because the gifts they brought were gold (for a king), frankincense (for divinity, as the son of God), and myrrh (for his humanity, representing his death and burial).

Tradition tells us that the Magi followed the star from the East and it led them to Jesus. However, the Bible does not state that the star *led them from* the east. Rather, that they had seen a star (or stars), which they believed to be heralding the birth of a new Jewish king. They presumably expected a new king of the Jews to be born in the Palace at Jerusalem, which is why they went there. If they had been guided by a star, they would have had no need for input from Herod.

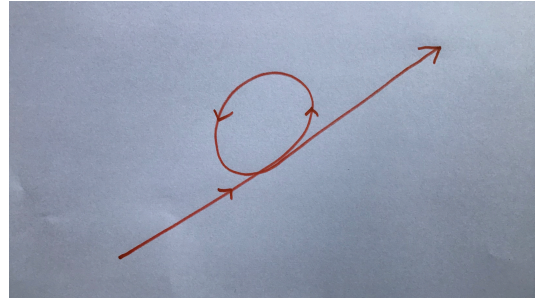
There was some amazing activity in the night skies between 7BCE and 1BCE predominantly occurring in and around the constellation of Leo, *the Lion of the Tribe of Judah*.⁹ The Bible refers to both planets and stars simply as stars. Stars don’t actually move – if it moves it is a planet (sometimes referred to as ‘a wandering star’) or a comet – so the Magi were not following a star. The Magi were watching astronomical activity and would have spotted something unexpected, particularly with the planet Jupiter.

Jupiter is known as ‘the king planet’ because it is the largest in the solar system, its diameter being eleven times earth’s. Jupiter is also known as ‘the saviour planet’ – it stops asteroids and meteors approaching earth by its gravitational pull, pulling them into itself and absorbing the impact.¹⁰ Jupiter has been recorded many times as having saved the earth from otherwise certain destruction, or at the very least, severe harm. Although it has allowed smaller asteroids and meteors through, countless times Jupiter has used its gravitational pull to suck asteroids out of the Earth’s path and into itself. Because of Jupiter’s size, it can absorb asteroids that would otherwise demolish the earth.

⁹ For details on this, please see the The Stars Speak (3), PressOn Journal, September 2021

¹⁰ <https://earthsky.org/space/is-it-true-that-jupiter-protects-earth>

Some the planets move in what is called ‘retrograde’ motion from time to time.¹¹ Jupiter does this about once a year. A retrograde makes it look as though the planet is slowing down, stopping, and then going backwards. Visually it makes a loop.



Retrograding is actually an optical illusion, like when you park in a car park and, as you stop, the car next to you reverses out. You find yourself stamping on the brakes because you feel as though you are moving.

From 13th May, 3 BCE to 28th August, 2 BCE, there were nine major conjunctions of planets and stars. Of these, six were with Jupiter.¹² Normally planets go into retrograde away from other planets and stars, but around Christ’s birth, Jupiter circled one star three times in an eight month period. That star is Regulus, in Latin, “the King”. The brightest star in the constellation of Leo. When Jupiter appeared to circle round Regulus it made an amazingly bright light. Perhaps this was what caught the attention of the Magi, and so they told Herod that they had seen *His* star, not just *a* star. The king and saviour planet, circling the king star in the kingly constellation, to mark the birth of the king of kings.

It appears a star did not guide the Magi until they reached Jerusalem. But from Jerusalem the star appeared to guide them to where the child lay (Matt 2:9). Again, there is no clear evidence of what this star was. It is suggested that it might be a comet, a special “star” that God created for this purpose, or some other miraculous event. This was a journey of only five miles. If Jupiter were in retrograde with a star or another planet, it would appear to be brighter than normal. Perhaps it could appear to change direction, so seeming to move across the sky, leading them from Jerusalem to Bethlehem. In the same way, it could also look as if it was standing still if it was in retrograde, hovering above where the Messiah was. None of this is conclusive, but for me, it is persuasive.

It is presumed that by the time the Magi understood the significance of the stars and the Bible prophecy and travelled to Jerusalem, that a period of perhaps up to eighteen months had

¹¹ https://en.wikipedia.org/wiki/Apparent_retrograde_motion

¹² https://tccsa.tc/articles/star_dates.html

passed by. This would explain why, after asking when the star had first been noticed, Herod ordered all the babies under 2 years old to be slaughtered.

One further piece of astronomical information linking the stars to the Bible leads me to think that Christ's birth may have been in September 3BCE. The Stellarium app on my iPad allows me to move through the constellations and shows what the sky looked like above any place, and at any time in our history, or into the future. Using Stellarium, we can go backward to when we think Christ may have been born, and see how the night sky looked over Jerusalem. Here is a screen shot of the position of the stars on the 11th September, 3 BCE (which is one of the suggested birth dates of our Lord). Pictures are shown with the images of the Zodiac. Here you can see Virgo, and above Virgo's head (right and down) is the constellation of Leo.



Let's read the first few verses of Revelation 12 whilst you consider this picture of the sky. You will remember John was exiled on the island of Patmos, and he records this vision,

Then I witnessed in heaven an event of great significance. I saw a woman clothed with the sun, with the moon beneath her feet and a crown of twelve stars on her head.¹³ She was

¹³ <https://www.northernarchitecture.us/ancient-egyptian/the-sun-is-in-virgo-with-the-moon-underneath-the-feet-of-the-latter.html>

*pregnant, and she cried out because of her labor pains and the agony of giving birth.
(Rev 12:1-2)*

We can see the positions of the various planets, stars sun and moon on the chart. John continues:

Then I witnessed in heaven another significant event. I saw a large red dragon with seven heads and ten horns, with seven crowns on his heads. His tail swept away one-third of the stars in the sky, and he threw them to the earth.” (Rev 12:3-4)

This could be the constellation of Draco, the dragon. Each Autumn there are meteor showers that happen during September and early October. When the earth passes through the meteor shower it looks as if Draco is flipping the stars out of heaven with his tail. A meteor shower is recorded between the 10–12th September, 3 BCE.¹⁴

Revelation goes on to say,

*He stood in front of the woman as she was about to give birth, ready to devour her baby as soon as it was born. She gave birth to a son who was to rule all nations with an iron rod. And her child was snatched away from the dragon and was caught up to God to his throne.
(Rev 12:4-5)*

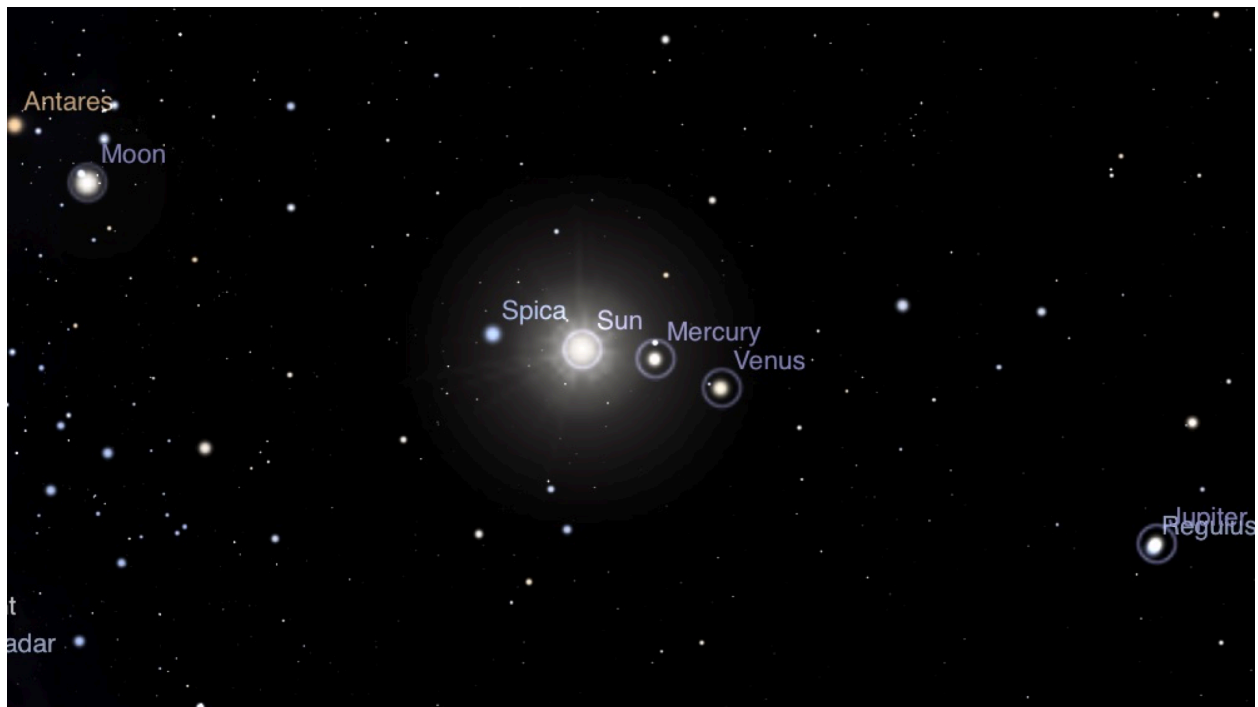
As you will appreciate, the sun and the moon are only visible in the sky at the same time for a short while, as the moon rises and before the sun sets. On 3rd of September, 3BCE, this was between 6.18 and 7.39 p.m. The stars and planets were in the exact alignment as recorded in Revelation 12.

Below is the same sky without all the images, and slightly enlarged. What you see is the moon off to the left, and the sun and the other stars and planets in the constellation of virgo. You can also see that Venus was very present in the mix that night. Venus, although it is a planet, is called ‘the morning star’.¹⁵ It is brighter than any of the other individual stars or planets in the constellations. In Revelation 22:16 we read, *I Jesus ... am the bright morning star.* Apt that Venus should be in the constellation of virgo on the night of his birth.

Add into this Mercury, which is forming part of the large cluster. Mercury is the planet associated with messages. You may remember when Paul and Barnabas were preaching in Lystra

¹⁴ Joe Amaral, Story in the Stars, p150

¹⁵ https://en.wikipedia.org/wiki/Morning_Star



that the people called Paul “Mercury” *because he was the chief speaker*. That is, he brought the message. Barnabas was called Jupiter (you will remember we said Jupiter is called the saviour planet, absorbing meteors that would have hit and damaged Earth). So the people of Lystra called Paul and Barnabas “messengers of the saviour” when they called them Mercury and Jupiter. Also, you can see that Regulus (the king star) and Jupiter (the saviour planet) are merging in Leo (the Lion of the tribe of Judah). All this activity may have led to the Magi setting off to Jerusalem and asking Herod *where is he that is born, King of the Jews*.

September 11th, 3BCE, was also the first day of Rosh Hashanah, the Jewish New Year.¹⁶ The Bible tells us that on this date, the first day of the seventh month known as *Tishri*, God appointed this as a special sabbath with the blowing of trumpets. At this celebration the shofar is blown using a special rhythm with 100 notes. Imagine the shofar being blown around Bethlehem when Christ was born. The shofar was also blown when a new king was crowned and will be blown again at the resurrection. We are told in Corinthians that *when the trumpet sounds, those who have died will be raised to live forever*” (1Cor 15:52).

¹⁶ <https://truthinscripture.net/2017/01/02/jesus-birth-feast-of-trumpets>

For me, the position of the stars so accurately recorded in Revelation leads me to believe that Christ was born on 3rd of September, 3BCE, between 6.18 and 7.39 p.m. I know this is not something that anyone can prove, but I find it a fascinating suggestion.

Bethlehem

Let's leave the stars and go on to look at Bethlehem, its significance, and the events recorded surrounding birth of Christ. We know that Joseph and Mary went to Bethlehem some five miles from Jerusalem because Joseph had to return to his hometown to take part in the census as recorded in Luke 2. Both Joseph and Mary were from the tribe of Judah, and Bethlehem was where their ancestor David was born. It was also where he would have looked after the sheep, on the same hills where the shepherds heard of the birth of our Lord.

We don't know if Mary rode to Bethlehem on a donkey, but we do know that the journey from Nazareth to Bethlehem is approximately 90 miles. It is quite possible that Mary and Joseph walked the journey, or went by donkey and cart, and they may have been accompanied by friends along the route, also heading for Bethlehem. It would probably have taken them about four days, but we have no idea where they would have stopped on the way.

The name Bethlehem means "House of Bread". Bethlehem is situated over an aquifer – an underground store of fresh water, which still to this day supplies the whole of the area. In our Lord's time Bethlehem supplied water to Jerusalem as their supply had been polluted by the blood from the many sacrifices made there.¹⁷ This water was famous in Israel. You may recall David dreaming longingly for *some of that good water from the well by the gate in Bethlehem* (2Sam 23:15 NLT).

So, our Lord, who called himself *the bread of life* (John 6:48) was born in the House of Bread. The Lord Jesus said, *whoever drinks the water I give them will never thirst* (John 4:14). Fitting that he should be born in Bethlehem, the supplier of endless fresh water to the whole of the surrounding area.

¹⁷ <https://www.nationalgeographic.com/history/article/bethlehem-christ-birth-blincoe>

The inn

When they reached Bethlehem tradition tells us that there was no room in the inn. However, the word for inn here is the Greek word *kataluma*. This word occurs three times in the Bible. Here in Luke 2 the translators have used the word ‘inn’. The other two occasions are in Luke 22:11 and Mark 14:14 referring to the upper room used for the last supper. There the word is translated as guest chamber (KJV) or guest room (NIV). The only other place where an inn is mentioned in the New Testament is in the story of the good Samaritan, where the word used is not *kataluma* but *pandokian*.

From this it seems that it may have been an upper room in a private house and not an inn. But in any event, there was no room available for Joseph and Mary. Given that Joseph’s relatives would also be arriving in Bethlehem, and some may even still have been living there, one may wonder why they were not given hospitality with them. Perhaps Mary’s pregnancy was causing some hostility within the family and they did not want them in the house. This would give us another way of looking at John 1:11, talking of our Lord Jesus, *He came to his own people and even they rejected him*. Also, by giving birth, Mary would have made herself, the family and their surroundings “unclean”¹⁸ so perhaps they were made to find somewhere else for the birth to take place.

Luke tells us of the shepherds who were living in the fields nearby Bethlehem. An angel of the Lord appeared to them, the glory of the Lord shone around them, and they were afraid. The angel told them that the Saviour had been born, the Messiah, the Lord. This will be a sign to you:

“You will find a baby wrapped snugly in strips of cloth, lying in a manger.”

Suddenly, the angel was joined by a vast host of others – the armies of heaven – praising God and saying “Glory to God in highest heaven, and peace on earth to those with whom God is pleased.” (Luke 2:14)

There is no mention of singing. In fact, in most places where angels are mentioned praising, it does not mention singing. Even in most of Revelation it is the risen righteous ones who sing – the angels just say their praise. Some commentators say that angels never sing,¹⁹ but that humans

¹⁸ Leviticus 12

¹⁹ <https://eu.jacksonsun.com/story/life/faith/2015/03/06/angels-really-sing/24521809>

have been given an innate, natural affinity for music and singing, especially with regard to worship. Clearly in our human state we are encouraged to sing, as instructed in Ephesians,

Singing psalms and hymns and spiritual songs among yourselves, and making music to the Lord in your hearts. (Eph 5:19)

But back to the Shepherds. The sign was twofold: wrapped in cloths, and lying in a manger...

Swaddling cloths

It was common for all new babies to be swaddled. This was done with strips of cloth. These swaddling bands were the layette of the time, prepared lovingly by expectant mothers and grandmothers. Sometimes they were embroidered with something exclusive to the family.²⁰ It was traditional for priests' families to use their old priestly garments as swaddling for the babies in their family.²¹ Wouldn't it be amazing if Elizabeth had given her young cousin Mary some priestly robes to swaddle her firstborn? The saviour of the world, to be our high priest, wrapped in priestly garments. We have no idea if this happened, it is just a thought. I also wonder when Jesus died and was wrapped in linen cloths in the tomb, whether Mary's mind went back to swaddling him at his birth.

If all babies were swaddled, what was the point of telling the shepherds this? They would have expected nothing less.

Perhaps it was to emphasise that Jesus was a loved son, both of Mary and also of our heavenly Father, *This is my dearly loved Son, who brings me great joy*. This contrasts with Ezekiel 16 where Jerusalem was told that *On the day you were born no one cared about you. Your umbilical cord was not cut, you were never washed, rubbed with salt and wrapped in cloth*. We know that when our Lord Jesus died, he was also despised. But at his birth he was loved, worshiped and adored.

What we do know is that being wrapped in cloths and laying in a manger meant something to the shepherds. The angel said it was a sign. To be a sign, it would have to be distinctive, understandable, and unique. It would have to mean something to them.

²⁰ <http://www.redeemerofisrael.org/2014/12/the-true-nativity-story-swaddling.html>

²¹ <https://www.facebook.com/groups/2419255661497957/permalink/3474440525979460>

Shepherds

We need to understand that these shepherds were the priestly shepherds who worked on the hills of Bethlehem. Details are given about this in the Mishnah – one of the books forming the Talmud – where it expressly forbids the keeping of flocks throughout the land of Israel, except in the wildernesses.²² The only flocks otherwise kept would be those for the Temple-services. Josephus confirms this, and states that the only lambs accepted for the passover sacrifices had to be bred within six miles of Jerusalem.

Jerusalem and Bethlehem and their surrounding fields were not in the wilderness where ordinary flocks of sheep were kept. Therefore, according to the Jewish regulations, the flocks under the care of the shepherds near Bethlehem were bred solely for sheep destined as sacrifices in the Temple at Jerusalem (making ‘Bethlehem hills’ a first-century factory sheep farm.)

These were shepherds whose job was to look after the new born lambs, picking out the perfect ones. Those lambs had to meet the strict legal-religious regulations of the Jewish faith. They had to be no more than one year old and without spot or blemish. Therefore they had to be born in controlled conditions and inspected for birth defects before being raised in protected surroundings.²³ Just before passover each year, the lambs were taken to Jerusalem, the males for burnt offerings and the females for peace offerings.

There was a tower on the field from which the shepherds could look over the fields and see any danger, and also see when the ewes were ready to give birth. This was called the flock tower. Under the tower there was a stable. The ewes were brought into the stable to give birth. The lambs were inspected immediately and if perfect, would be swaddled in cloths to keep them without blemish. Then they laid the lambs in the manger in the stable to keep them quiet awaiting inspection by the Priest. So, to the shepherds, being told that the Messiah was swaddled and in a manger, they would know instantly that the messiah would be in the stable of the flock tower.²⁴

When the angels left, the shepherds said,

²² Bab K. 7:7; 80a

²³ <https://www.patheos.com/blogs/standingonmyhead/2018/12/the-bethlehem-shepherds-were-not-just-country-bumpkins.html>

²⁴ <https://blogs.bible.org/the-sign-given-to-the-shepherds>

“Let’s go to Bethlehem and see this thing that has happened, which the Lord has told us about.” (Luke 2:15)

There is no record of a discussion as to how they would find a baby in a manger in a busy and bustling Bethlehem. They ‘hurried off’ and found Mary and Joseph, and the baby who was in the manger. They saw the Messiah, our high priest and the perfect sacrifice, lying in the manger, where daily they saw sacrificial lambs. The shepherds knew they were not going to see just any baby. That’s why they worshipped him. They knew he was the promised Messiah, the perfect sacrificial Lamb of God

So what do we know about the flock tower? It is believed it was at Migdal Eder, as *Migdal Eder* is translated from Hebrew as *flock tower*. We first come across this place when Rachel died giving birth to Benjamin.

Rachel died and was buried on the way to Ephrath (that is, Bethlehem). Over the tomb Jacob set up a pillar, and to this day that pillar marks Rachel’s tomb. Israel moved on again and pitched his tent beyond Migdal Eder. (Genesis 35:19)

Bethlehem became a very special place for Jacob, as it would for David too.

In the book of Micah we are told,

As for you, watchtower of the flock, stronghold of Daughter Zion, the former dominion will be restored to you, kingship will come to Daughter Jerusalem. (Mic 4:8)

Perfect symmetry

I find it absolutely amazing to think that God planned for his son to be born at the time of the census, so that Joseph would take Mary to Bethlehem, to fulfil the prophecy of where the baby would be born. Joseph, this selfless man of faith, knew there would be somewhere for Mary to give birth. God provided the flock tower, so fulfilling the prophecy of Micah. It makes such perfect symmetry.

Our Lord, the source of living water, born above the aquifer supplying water and life to the land. The bread of life, born in Bethlehem, the house of bread. The perfect lamb, the Lamb of God, laid in the manger where the sacrificial lambs were laid.

The Bible gives us the details of Christ's birth that we need to know, and we are left to wonder about the rest. Despite all the trimmings that we in the twenty-first century have added, the birth of Christ is still the most wonderful event in the history of mankind.

It is humbling that God, who could have made the birth of Christ the most show-stopping, razzmatazz celebration on earth, chose instead simple, quiet, loving, gentle beginnings, overseen by angels and shared with shepherds. We are reminded that God tells us,

My thoughts are nothing like your thoughts and my ways are far beyond anything you could imagine. (Is 55:8)

It remains only for me to wish you a very happy and peaceful Christmas and a healthy New Year, and pray this may be the year our Lord, the lion of the tribe of Judah returns in power and great glory.

Bibliography

<https://cof.quantumfuturegroup.org/events/3084>

<https://goodnessofgodministries.international/2011/12/22/when-was-jesus-christ-born-the-bible-says-september-11-3bc-the-day-of-the-feast-of-trumpets/>

Lewin, Thomas Esq., M.A., F.S.A. (1865) *Fasti Sacri or a Key to the Chronology of the New Testament*. Longmans, Green, and Company, London, 429 p.

<https://www.southplattsentinel.com/2018/12/18/shepherds-and-swaddling-clothes/>

<https://catholic-link.org/matter-jesus-wrapped-swaddling-clothes/>

<https://truthinscripture.net/2017/01/12/jesus-birth-conclusion-when-was-jesus-born/#more-646>

<https://powerofhumility.org/migdal-eder/>

Dr. Martin Elm: *The Star that Astonished the World*

<https://truthinscripture.net/2017/01/04/jesus-birth-the-star-of-bethlehem/>

<https://theconversation.com/can-astronomy-explain-the-biblical-star-of-bethlehem-35126>

<https://www.facebook.com/groups/2419255661497957/permalink/3474440525979460/>

Joe Amaral - *The Story in the Stars*

Bullinger - *Witness of the Stars*