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The Natal Star

After Jesus was born in Bethlehem in Judea, during the time of King Herod, Magi from the east came to Jerusalem and asked, “Where is the one who has been born king of the Jews? We saw his star in the east and have come to worship him.”

Matt 2:1-2

A miraculous event?

The feature of a God-sent symbolic star in the biblical account of the Nativity of the Lord Jesus has caused some critics to claim a mythical element to the story. This, they say, is a straightforward embellishment to give the account added reverence to the credulous Christians. Others have expended considerable thought and energy in trying to locate a known stellar phenomenon that would ‘fit’ with the account we have in the Bible. As the possible ‘explanations’ of these phenomena are complex, it seems appropriate to treat the matter as a separate subject in its own right. Whilst it is not possible to ‘prove’ what the Natal Star (or stars) was, many scholars have been convinced for some 350 years that the biblical events coincide with known sidereal events and that this adds credibility to Matthew’s account.

A strong possibility, given the nature of salvation history (previously examined in Chapter 2) is that the phenomenon was unprecedented. In other words it was a miraculous occurrence

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by being a direct intervention of God in the workings of ‘nature’ outside of normal human experience. So God would have ordained and caused a stellar phenomenon which has no precedent and which will not recur, as part of the altogether greater miracle of the Incarnation. Miracles, of course, have proved to be a stumbling block to belief for some who hold that God cannot ‘do’ such things. This is puzzling, especially where this view is expounded from time to time from within the church. It is unclear what sort of God these church-based doubters believe in. If God created the universe and ordered the laws that govern it, how can such ‘doubters’ proscribe acts of God within His universe? It seems illogical to believe that the God who established the ‘laws of nature’ would allow Himself to be limited from re-ordering and occasionally setting-aside those ‘laws’.

It has been rightly pointed out that ‘science’ can say nothing conclusive about miracles, as the following quotation from an open letter by fourteen UK scientists to *The Times* newspaper succinctly argued:

“It is not logically valid to use science as an argument against miracles. To believe that miracles cannot happen is as much an act of faith as to believe that they can happen. We gladly accept the virgin birth and the resurrection of Christ as historical events. We know that we are representative of many other scientists who are also Christians standing in the historical tradition of the churches.

“Miracles are unprecedented events. Whatever the current fashions in philosophy or the revelations of opinion polls may suggest, it is important to affirm that science (based as it is upon the observation of precedents) can have nothing to say on the subject. Its “laws” are only generalisations of our experience. Faith rests on other grounds.”¹

It is possible, then, that the Natal Star was a miraculous, one-off event. Equally likely, however, it was a miraculous event or series of events linked to observable and recurring stellar phenomena. If so the miracle, in this sense, is that God who set the stars in their courses (Genesis 1:14; 1 Chronicles 16:26; Nehemiah 9:6,

etc) should have so pre-ordained the timings of “natural” sidereal phenomena that they coincided precisely with the events which we now think of as the Nativity. It is this assumption which many today believe to be the most satisfactory ‘explanation’ of Matthew’s account. Either way, the miraculous nature of the appearance is quite remarkable.

Sudden bright lights in the night sky, apart from shooting stars, are either comets or ‘novae’ (new stars). Origen, one of the early Christian church leaders, who lived in Alexandria about AD 200, wrote of the Natal star in terms of a new star which had nothing in common with other stellar activity. Other clerics and artists of the early church period thought of the Natal star as a comet and ancient illustrations of the star over Bethlehem will often depict it in this way, complete with a fiery tail.

Archaeological activity has discovered detailed information on ancient astronomical observations from the Greek, Roman, Babylonian, Egyptian and Chinese civilisations. It was normal among the ancients to think of unusual stellar activity as god-sent announcements of important events. Knowledge among the ancients of astronomical matters was extensive. Novae were witnessed and recorded but there were none recorded about the year ‘zero’. We have already seen that Jesus was probably born in the year 6 BC, so it is about this time that we should be looking for unusual stellar activity.

Johannes Kepler

Born December 27, 1571, the Renaissance astronomer and astrologer Johannes Kepler is best known for his discovery of the three principles of planetary motion, by which he clarified the spatial organisation of the solar system. Kepler also founded modern optics by presenting the correct explanation of how human beings see. He was the first to deduce and explain what happens to light after it enters a telescope, and he developed a particular version of that instrument. His ideas provided a transition from the ancient geometrical description of the heavens to modern dynamical astronomy, into which he introduced the concept of

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physical force. Something of a child prodigy, although never in robust good health and small of stature, Kepler originally trained to be a Lutheran minister but, during his last year of training, he took up an opportunity to become a professor of mathematics in the Lutheran high school at Graz in Austria. Kepler was an admirer of the Polish astronomer Nicolaus Copernicus and his ground-breaking and controversial astronomical theories —the principal one being that the earth spins about its own axis and orbits the sun. Scientific and religious theory up to that time had held that the sun orbited the earth.

A week before Christmas, on December 17, AD 1603, Kepler, sitting through the night at an observatory near Prague, watched the conjunction of two planets, Saturn and Jupiter, which appeared on the same degree of longitude, in such a way that they appeared to be moving together to become a single larger and more brilliant star in the constellation of Pisces. On reference to his astronomy notes some short time later, Kepler recalled a piece in the writings of the rabbinic writer Abarbanel,² referring to the special influence which Jewish astrologers were said to have attributed to the same constellation. This was that the Messiah would appear when there was a conjunction of Saturn and Jupiter in Pisces. The obvious question then was: could it have been the same conjunction at the time of the birth of Christ, which Kepler had witnessed in 1603?

Working through the necessary astronomical calculations, Kepler deduced that the same conjunction occurred in 6 BC. This was only one of a number of important scientific discoveries that Kepler made, but was for many years forgotten, in part because Kepler's own reputation dipped in his latter years as he became involved in mysticism and other controversies of his day. It was not until 1925 that the German scholar P. Schnabel deciphered the Neo-Babylonian cuneiform tablets belonging to the ancient School of Astrology in Sippar in Babylonia. Among many dates and astronomical observations, he came across a reference to the position of the planets in the constellation of Pisces, in which Jupiter and Saturn were carefully observed over a period of five

months. Reckoned in our calendar, the year would be 7 BC! It is important to note that, whilst archaeologists and historians have to piece together their view of past ages with great diligence and effort, using monuments, documents, tablets and even broken fragments of artefacts, the task for the astronomer in reconstructing the historical celestial sky is, by comparison, much simplified. His task is essentially a mathematical one and he can turn back the 'cosmic clock' at will. In a 'virtual planetarium', the astronomer can arrange the stars and planets exactly as they were thousands of years ago, right down to their appearance on particular days.

We have already seen that the date of the Lord Jesus' birth is definitely between 6 and 4 BC, with most evidence pointing towards 6 BC. The biblical account indicates two sightings of the star, one before the Magi began their journey, probably from Persia or Babylonia, and the other near their journey's end, when, after their interview with King Herod, these Magi, "...went on their way, and the star they had seen in the east went ahead of them until it stopped over the place where the child was. When they saw the star they were overjoyed" (Matt 2:9-10). A celestial object near the horizon might well appear to point out a location on the surface of the earth below.

Stellar conjunctions

In the year 7 BC, Jupiter and Saturn met in Pisces and, as Kepler deduced, they met three times. Mathematical calculations established further that this threefold conjunction was particularly clearly visible in the Mediterranean area. The conjunctions probably took place in the following way. About the end of February 7 BC, Jupiter moved out of the constellation Aquarius towards Saturn in the constellation of Pisces. Since the sun at that time was also in the sign of Pisces its light covered the constellation and it was not until 12 April that both planets rose in Pisces heliacally (i.e. from the sun) with a difference of 8 degrees of longitude. On 29 May the first close encounter took place, visible for some two hours in the morning sky. The second encounter took place on 3 October and the third on 4 December. At the end of January in the

year 6 BC, the planet Jupiter moved out of Pisces and into Aries. Werner Keller makes an interesting observation in his book *The Bible As History*: “We have seen his star in the east,” (Matt 2: 2) said the wise men, according to the Authorised Version. Ingenious textual critics discovered that the words “in the east” are in the original *En te anatole* – the Greek singular – but that elsewhere “the east” is represented by *anatolai*, the Greek plural. The singular form *anatole* has, it is maintained, quite special astronomical significance, in that it implies the observation of the early rising of the star, the so-called heliacal rising. The translators of the Authorised Version could not have known this.’

As Werner Keller says, if this exposition of the text is accepted, the translation – in the jargon of these astronomical experts – would read: “We have seen his star appear in the first rays of dawn.” That, observes Keller, would have corresponded exactly with the astronomical facts.³ These calculations take us close to the presumed date of birth of the Lord Jesus in December of 6 BC. If He was born in the previous year, then the astronomical facts would accord almost exactly with the current understanding of the Lord’s Nativity, i.e. late in the year after several observed stellar phenomena.

If a stellar phenomenon between 7 and 6 BC aroused the interest of first-century star-gazers in the middle east, and gives good reason why the Magi should have travelled West to seek out a new king, it may still be insufficient to explain the fact that by it they were able to locate *the house* where the infant Jesus was staying (Matt 2:9). Another intriguing possibility presents itself: the sidereal activity initiated the journey of the Magi, but a bright luminous angel led them for the last few miles to the precise point in Bethlehem where Jesus was to be found. Luke has told us separately in his account of the shepherds that, “An angel of the Lord appeared to them, and the glory of the Lord shone around them, and they were terrified” (Luke 2:9). Angels clearly have the ability to shine brilliantly, so this may well account for the “star” being able to lead them with precision the last few miles from Jerusalem to Bethlehem.

The significance of the stars to ancient astrologers

Many stars were thought to have special significance to ancient star-gazers. Whilst we cannot be completely certain as to the precise sidereal phenomena that announced the Lord's birth, if the 'Kepler' interpretation is correct, or only partly correct, then the stars concerned would have been thought to be the key to a God-sent message to the ancients. According to the Chaldeans, Pisces was the sign of the west (the Mediterranean countries) and in Jewish lore it was the sign of Israel. As Werner Keller points out, the constellation of Pisces stood at the end of the sun's old course and at the beginning of its new one. What would be more likely than that the Magi saw in it the sign of the end of an old age and the start of a new one?⁴

Jupiter was considered by most astrologers to be a 'lucky star' and a 'royal star'. According to Hebrew tradition, Saturn was the protector of Israel. Babylonian star-gazers thought the planet to be the special star of the neighbouring lands of Syria, Judaea, Samaria and Galilee. Ever since the time of King Nebuchadnezzar thousands of Jews had lived in Babylon. Some without doubt studied at the school of astrology in Sippar. The very obvious conjunction of Jupiter with Saturn in 7 BC, the 'guardian of Israel' with the 'constellation of the western countries', may have been greeted with considerable excitement by the Jewish community in Babylon at the time. It would certainly not have gone unnoticed by Jewish astrologers who lived in the Eastern lands. According to their analysis this might have been thought to indicate the appearance of a mighty king in the west countries, the land of their forefathers. Whether any of the Magi were of Jewish extraction we cannot know, but the event would have been interpreted as one of such significance that we can understand the Magi's desire to go and see the new king at first hand.

Having observed the first encounter on May 29th in 7 BC, possibly from the roof of the school of astrology in Sippar, the Magi would wisely delay their departure until later in the year, when the desert lands became cooler. Magi would have been able to predict the second conjunction on October 3rd and the fact that

this day was the Jewish Day of Atonement may have been taken as a sign to commence their journey to the west at that point. Travel on the caravan trails, even on camels (the quickest means of travel), was a slow affair. Allowing that the journey would take perhaps six weeks, the earliest that the wise men would have arrived in Jerusalem would have been towards the end of November in 7 BC.

A more likely sequence of events, however, is that the “wise men” were intrigued by various stellar conjunctions over the early to middle of 7 BC and made their journey in the early part of 5 BC. The infant Jesus on our best estimate was born towards the very end of 6 BC. Allowing that the holy family, as we have seen, returned briefly to Nazareth before their intended permanent move to Bethlehem, then it may have been the middle of 5 BC when the Magi arrived in Jerusalem, Jesus now being at least six months old and living in a *house*, where gifts were presented to Him. Herod, on hearing from the Magi of stellar phenomena beginning eighteen months earlier, would then have settled on a two-year timeframe of infant suspects, and so issued the infamous order for the murder of boys up to two years old.

Did the first century Jews expect a stellar phenomenon to coincide with the advent of the Messiah?

Some critics have argued that first century Jews anticipated a sidereal phenomenon to be associated with the advent of the Messiah. This in turn, would have enabled or encouraged Matthew to invent a story to lend credibility to the Lord’s birth. Further, if there were genuine sidereal phenomena at the time, these would provide a useful prop to hold up Matthew’s story.

Was there an expectation of some stellar phenomena around the Messiah’s birth? This is of particular interest to Christians, who are warned against astrology and divination in the Scriptures (e.g. Isaiah 47:13-15). If God Himself had ordained some stellar activity to coincide with Jesus’ birth, would this in any way run counter to His clear commands on the subject? If the star was of purely supernatural origin, would this imply God condescended

to the superstitious views of the Magi? If, on the other hand, the stellar activity was entirely predictable (and in that sense not miraculous) do Christians have any reason to call the event miraculous?

Regarding the question of Jewish expectancy of a star sign accompanying the Messiah's birth, some writers have indeed linked Jewish expectancy of the Messiah to the appearance of a star. One basis for this is the work of the Jewish commentator Abarbanel (mentioned earlier as a source of inspiration to Johannes Kepler) who, in his commentary on the Old Testament book of Daniel held that the conjunction of Jupiter and Saturn in the constellation of Pisces was a token of important events, especially in the life of Israel, for which he provided five mystic reasons. Abarbanel was of the opinion that such a conjunction took place three years before the birth of Moses which heralded the first great deliverance of Israel, and similarly that it would occur before the birth of the Messiah—the final deliverer of Israel. His argument failed to convince many, however, because his calculations were seen as inconclusive and even erroneous. It was also plainly absurd to assume the state of first-century Jewish belief regarding stellar phenomena based on the writings of a fifteenth century rabbi.

Reliable information about ancient Jewish belief in stellar activity announcing the Messiah is, however, available. One of the shorter *Midrashim*, translated and re-published in the middle of the nineteenth century, called the Messiah-Haggadah, opens with the following: "A star shall come out of Jacob. There in a Boriata in the name of the Rabbis: the heptad in which the son of David cometh – in the *first* year, there will not be sufficient nourishment; in the *second* year the arrows of famine are launched; in the *third* a great famine; in the *fourth*, neither famine nor plenty; in the *fifth*, great abundance, and the *star shall shine forth from the East, and this is the star of the Messiah*. And it will shine from the East for fifteen days, and if it be prolonged, it will be for the good of Israel; in the *sixth* sayings (voices) and announcements (hearings); in the *seventh* wars, and at the close of the seventh the Messiah is to be expected."⁵ A similar teaching is given at the end of a collection of

three Midrashim which are titled ‘The Book of Elijah’, ‘Chapters about the Messiah’, and ‘The Mysteries of Rabbi Simon, the son of Jochai’. These tell us that a star in the East would appear two years before the birth of the Messiah —statements which are remarkable in the sense that, whether they originated in Judaism before or after the birth of Christ, they still bring us to circa 7 BC when, as we have seen, conjunctions of Jupiter and Saturn occurred three times, in May, October and December.

These conjunctions, whilst not meeting precisely the requirements of the stellar activity mentioned in Matthew’s Gospel, nevertheless do explain the attention of the Magi being aroused and, even assuming they did not know of the Jewish community’s expectation of their Messiah, it is certain that after due enquiry they would have ascertained that this was indeed their expectation. We may conjecture that the Saturn/Jupiter conjunction in 7 BC was the Magi’s star seen *in its rising* and that a triple conjunction in early 6 BC of Mars, Jupiter and Saturn which stood at the points of a triangle might then have been the re-appearance at which the Magi rejoiced. Alternatively the reappearance might itself have been a separate stellar phenomenon occasioned directly by God.

No proof-positive of the ‘how’ of the Natal star is possible. It is clear only that there was exceptional stellar activity about the time that Christ was born. As suggested earlier, the real miracle in this is probably not what happened in the night sky, but rather the fact that God ordained His Son’s birth as a human in a way that coincided with these heavenly phenomena, which is an impressive comment on the longevity and precision of His plan of salvation. Certainly God would not have done anything that would arouse an interest in astrology but He may in His wisdom and grace have decided to allow events to coincide with the expectation of the Magi, who would have seen guidance by a star as the fullest confirmation that they had been rightly directed to Bethlehem.

That some Jews, at least, *did* expect the appearance of a star to announce the Messiah’s advent, seems beyond doubt.⁶ But Matthew would have been unlikely to have latched upon this as

a reason to invent a story about ‘wise men’ from the east. Nothing would have been more antipathetic to the notions of a Jewish readership, for which he principally wrote his Gospel. Rabbinism looked to a very different manner of the world’s homage of their Messiah than the worship of a few superstitious non-Jewish Magi. Far from serving as an historical basis for the origin of a ‘legend’ by Matthew, the account of the Magi and their guidance by a star might have been calculated to have dissuaded many Jews as to Jesus’ claim as Messiah! Again Christians look to the reliability of the original witnesses and remark that the Gospel accounts do not seek to suppress details that might otherwise be considered inconvenient.

Notes

¹ Letter to *The Times* by fourteen scientists, mainly university professors, headed by Professor R. J. Berry as President of the Linnean Society, dated 13 July 1984. Also quoted in *The Authentic Jesus* by John Stott, Marshall Morgan and Scott, 1985, p. 15.

² Born 1439, died 1508.

³ See *op. cit.*, *The Bible As History* p. 332.

⁴ *Ibid.* p. 333.

⁵ Quoted in *op. cit.* p. 147.

⁶ Ephrathah. In Numbers 24:17, Balaam’s prediction of the star and sceptre is referred to as messianic in the Targum Onkelos and the Tagum Pseudo-Jonathan. Whilst Balaam’s prophecy was of a king rising *like* a star, the fact that a rising star announced the Messiah’s birth and guided the Magi to the King who they were to worship, may be seen as sufficient fulfilment of the prophecy.

