

The Significance of Mega Stars

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Yonder goes Cygnus, the Swan, flying southward, —

Sign of the Cross and of Christ unto me.

— from Smith's poem *Come Learn of the Stars*¹

Mega stars are extremely luminous stars – stars with a luminosity at least 10,000 times that of our Sun. The significance of mega stars burst into my consciousness on the day of the Mercury transit on May 7, 2003.² I now see this as part of the arising of a galactic level of consciousness, which lies at the heart of a new star wisdom. Could it be the Cosmic Christ who is behind this awakening of consciousness to the galaxy? Be that as it may, the awakening to this galactic level of consciousness signifies a step for humanity comparable to the new consciousness that came about through the Copernican revolution, when the old geocentric solar system gave way to the new heliocentric one. The revolution at that time was at the level of the cosmos, rather than at the level of the galaxy. Here the word *cosmos* is used in the Greek sense of the word to encompass the entire visible universe, including all stars visible to the naked eye. The revolution that is taking place in our time is the step from cosmos to galaxy. Now that there is a consciousness of the shape and structure of our Milky Way galaxy, we are enabled to inwardly behold that which lies beyond the confines of our local part of the galaxy. As will be discussed below, the cosmos coincides, by and large, with our local part of the galaxy, known as the Orion Arm. Galactic awareness signifies an

¹ Quoted from Richard Hinckley Allen, *Star Names: Their Lore and Meaning* (New York: Dover Publications, 1963), p. 195.

² Robert Powell, "Mega Stars," *Christian Star Calendar 2004* (Palo Alto, CA: Sophia Foundation of North America, 2003), pp. 26-30. See also Robert Powell, *General Introduction to the Christian Star Calendar: A Key to Understanding* (Palo Alto, CA: Sophia Foundation of North America, 2003), pp. 11-18.

expansion of consciousness to include the whole of the Milky Way galaxy, not just the Orion Arm.

The famous Bayer catalog of stars compiled in 1603 by Johann Bayer assigns *Greek letters* to the brightest stars visible in each constellation, usually in descending order of apparent brightness (but Bayer was not always consistent in this). In the early 1700s John Flamsteed assigned *numbers* to the bright stars in each constellation, in order of right ascension. The Flamsteed numbers proved useful, because one eventually runs out of Greek letters, but there is no limit to the number of stars that can be assigned a number. The Flamsteed catalog (which includes the stars in the Bayer catalog) is more or less sufficient in terms of exploring the visible cosmos. Of course, with the development of ever more powerful telescopes, more and more stars in our galaxy have now been catalogued. But for the purpose of exploring the sidereal influences at work in our *cosmos* (the local region of the galaxy known as the Orion Arm), the combined Bayer-Flamsteed catalog is more or less sufficient – “more or less” because there is an interesting group of stars, which can be referred to as *mega stars*, that also need to be taken into consideration. The mega stars are exceedingly bright stars and, as research indicates, they are of extraordinary importance.

In order to illustrate the notion of mega stars, let us consider the star Deneb, which marks the tail of the Swan (or the head of the Northern Cross) and which can be seen on high during summer nights in the middle of the Milky Way. Deneb is a first magnitude star (apparent magnitude +1.2), which appears less bright than its neighbor Vega in the constellation of the Lyre. Both the Swan and the Lyre were sacred to Apollo, and both Deneb and Vega are of great significance in relation to our solar system. Deneb and Vega mark two points of the *summer triangle*, whose third point is marked by Altair in the constellation of the Eagle. Whereas Vega is the fifth brightest star that we can see in our cosmos, Deneb is the nineteenth brightest in terms of apparent magnitude. Sirius, of course, is the brightest star we can see, in terms of apparent magnitude. However, neither Vega nor Sirius is a mega star, whereas Deneb is. How may this be understood?

Our grasp of the surrounding cosmos is changed immediately when we consider the *distance* of stars from our solar system. These distances are so vast that a special cosmic unit

for measuring them has been devised: *light years*, where one light year is the distance travelled by light during the course of one year. To gain an understanding of the enormous distances involved, we need only consider that Sirius —8½ light years away (amounting to some fifty trillion miles or eighty trillion kilometres)—is a *close neighbor* to our Sun in comparison with the greater distances of almost all other stars (only the triple star system Alpha Centauri and Barnard's star, Wolf's star, and Lalande's star are closer to our Sun than Sirius).³ It is because Sirius is so close, in comparison with other stars, that it appears so bright. We can ask the question: How bright is Sirius objectively? In other words, if we were to place Sirius alongside our Sun, how bright would it appear in comparison with our Sun?

This leads us to the concept of *luminosity*, which measures a star's intrinsic brightness. Generally the luminosity of our Sun is set at the value one ($L=1$). By way of comparison, then, the luminosity of Sirius is 22 ($L=22$). In other words Sirius, if it were to be placed alongside our Sun, would appear 22 times brighter. From our perspective our Sun is an extremely bright star. However, if the Earth were revolving around Sirius—in other words, if Sirius were our Sun—it would be seen by us to be 22 times brighter. If we imagine a second Sun alongside our Sun, then a third Sun, a fourth Sun, a fifth Sun, up to a 21st Sun, all bunched together as 22 Suns, we can acquire a conception of the luminosity of Sirius, which would blaze down upon us with the light of 22 of our Suns.

Vega at 25 light years is *three* times the distance of Sirius. If Vega would appear to us to be just as bright as Sirius then, because the intensity of light decreases proportionately to the *square* of the distance, it would follow that the intrinsic brightness (luminosity) of Vega would be about *nine* times (3×3) that of Sirius. However, Vega—as the fifth brightest star in terms of apparent magnitude—appears *less bright* to us than Sirius. In fact, the luminosity of Vega ($L=50$) is a little more than *twice* that of Sirius. Vega's luminosity is 50, so that if the Earth were revolving around the star Vega as our Sun, Vega would blaze down upon us with a light over fifty times brighter than that of our Sun.

³ http://en.wikipedia.org/wiki/List_of_nearest_stars

Having specified luminosity, we are now in a position to understand why Deneb is a mega star. Deneb is over 3200 light years distant from our solar system and has a luminosity of 270,000. In other words, Deneb is shining with a light 270,000 times more powerful than our Sun. A mega star is a star that is at least 10,000 times more luminous than our Sun.

Deneb well illustrates the significance of mega stars. Looking up at Deneb, we see that it is 60° North of the zodiac—this is its latitude. If we trace an arc down from the *ecliptic pole* through Deneb, it intersects the sidereal zodiac at 10½° Aquarius—this is Deneb’s longitude. According to the research presented in my book *Chronicle of the Living Christ*, which provides the foundation for the monthly astronomical commentaries in the *Christian Star Calendar*, at the feeding of the 5000 the Sun was at 10½° Aquarius.⁴ Let us consider this in light of the quote at the beginning of the *General Introduction to the Christian Star Calendar: A Key to Understanding*,⁵ the booklet explaining the *Christian Star Calendar* and how to work with it:

In Palestine during the time that Jesus of Nazareth walked on Earth as Christ Jesus—during the three years of his life, from his thirtieth to his thirty-third year—the entire being of the Cosmic Christ was acting uninterruptedly upon him, and was working into him. The Christ stood always under the influence of the entire cosmos; he made no step without this working of the cosmic forces into and in him . . . It was always in accordance with the collective being of the whole universe with whom the Earth is in harmony, that all which Christ Jesus did took place.⁶

From these words it is clear that it was not mere coincidence that there was a *conjunction* between the Sun and the mega star Deneb at the feeding of the 5000. Evidently the cosmic forces streaming from Deneb were transmitted via our Sun and were received and transmitted further by Christ at the time of the miracle of the multiplication of bread and

⁴ Robert Powell, *Chronicle of the Living Christ: Foundations of Cosmic Christianity* (Gt. Barrington, MA: Steiner Books, 1996), pp. 275-276; see p. 170 for the horoscope of this event. The feeding of the 5000 is described in *John* 6:1-14.

⁵ Robert Powell, *General Introduction to the Christian Star Calendar: A Key to Understanding* (Palo Alto, CA: Sophia Foundation of North America, 2003).

⁶ Rudolf Steiner, *Spiritual Guidance of the Individual and Humanity* (Gt. Barrington, MA: Steiner Books, 1992), p. 28.

fish. Here the word “conjunction” means a conjunction in *longitude*, both at $10\frac{1}{2}^{\circ}$ Aquarius. Even though the Sun and Deneb were 60° apart in terms of latitude, there was still a conjunction in longitude, with the Sun crossing the *Deneb meridian* at the time of the miracle.

Just as there are meridians—lines of energy flow—in the human being, these meridians exist also in the greater cosmos of the macrocosm. As may be understood from the law of correspondences “*as above, so below*”, if there are meridians in the human being, they must exist also “above” in the cosmos. We can picture an energy flow streaming from each star and intersecting the zodiac, the place of intersection indicating the point of influx of the energy flowing from our cosmos into our solar system. For Deneb this point of influx is $10\frac{1}{2}^{\circ}$ Aquarius, and so whenever the Sun or any planet in our solar system crosses the Deneb meridian at $10\frac{1}{2}^{\circ}$ Aquarius, the Deneb energy flows in to unite with that planet or with our Sun. (Here *energy* is to be understood as the Divine Energy or Divine Love radiating from the stars.)

Deneb is one example of a mega star in our cosmos. If we define mega stars to be those stars with a luminosity at least 10,000 times greater than that of our Sun, we discover – including the red supergiant Betelgeuse – fifty-six such stars in the Bayer-Flamsteed catalog, with Deneb as the fifth most luminous star of the fifty-six. It should be borne in mind that luminosity is a measure of the true (intrinsic) brightness of a star, whereas apparent magnitude is a measure of a star’s brightness without any consideration as to the distance of the star. A star can appear very bright simply because it is close to our solar system, but actually is not very bright in an absolute sense. Sirius is an example here: it appears as the brightest star in the heavens since it is only $8\frac{1}{2}$ light years away and it is actually 22 times brighter than our Sun ($L=22$). In comparison with Sirius, the pole star (Polaris) appears rather faint, even though it is over one hundred times more luminous ($L=2483$), because it is so much further away than Sirius (431 light years away). On the other hand, a star – despite being a long way away – could appear bright because it actually *is* a very radiant star. The star Rigel in the constellation of Orion is an example here: it is 773 light years away, but it still appears to us as a very bright first magnitude star because it has a luminosity of 41,400. Luminosity factors in the distance of a star so as to provide an objective measure of a star’s

true brightness. The star Deneb (over 3200 light years away) is much further away again than Rigel, and yet on account of its high luminosity ($L=270,000$) it is visible as a first magnitude star, albeit the 19th on the list of brightest stars (after Sirius as the 1st and Rigel as the 6th brightest).

In terms of the measurement of apparent magnitude, the scale of brightness ranges from the Sun (-26.7) to the Moon (-12.6) to Sirius (-1.4) to Rigel (+0.1) to Deneb (+1.2) to the faintest naked eye stars (+6.5), since with exceptionally good eyesight it is possible to see stars down to +6.5 apparent magnitude.⁷ However, the vast majority of stars are invisible, with an apparent magnitude in the range beyond +6.5. In terms of defining our cosmos—our local region of the Milky Way galaxy known as the Orion Arm—attention can be restricted, by and large, to stars whose apparent magnitude is +7.0 or less, remembering that we are using the word *cosmos* in the Greek sense of the visible world. Using this definition, our cosmos coincides more or less with the Orion Arm, although there are a handful of very luminous stars which, despite their vast distance away on other spiral arms of our galaxy, can be seen with the naked eye – one of these being the luminous blue variable star Eta Carinae in the Sagittarius-Carina Arm many thousands of light years away from our Orion Arm. Currently (2007) Eta Carinae is thought to be the most luminous star in our galaxy.⁸ Eta Carinae – estimated to be 7500 light years away – has a luminosity of about four million, which is why, even though it is at such a great distance, it can be seen with the naked eye.⁹

Another factor in terms of arriving at a definition of our cosmos is *distance*. A cursory review of the Bayer-Flamsteed star catalog reveals that the vast majority of stars visible to the naked eye are within a distance of 7000 light years from our solar system. According to the Hipparcos star catalog, one of the most remote visible stars—the main star in the constellation of the Giraffe (Alpha Camelopardalis), located above the constellations of

⁷ Note that the brightest values in apparent magnitude are denoted by “-” and the faintest by “+”. Beyond +6.5, stars are no longer visible to the naked eye, and the higher the “+” value the fainter the star.

⁸ “Eta Carinae has the highest confirmed luminosity based on data across a broad range of wavelengths; former prospective rivals such as the Pistol Star have been demoted by improved data” – http://en.wikipedia.org/wiki/Eta_Carinae.

⁹ The *visual luminosity* of the energy output of Eta Carinae is estimated to be about 4,000,000. Its *total luminosity*, known as “*bolometric luminosity*”, which includes its energy output in all parts of the spectrum, is about 5,500,000 – http://en.wikipedia.org/wiki/List_of_most_luminous_stars.

Perseus and Auriga —is just under 7000 light years distant.¹⁰ This enormous distance places Alpha Camelopardalis beyond the Orion Arm in the Perseus Arm of our galaxy. According to the analysis of stellar distances and luminosities provided by the Hipparcos catalog, in the Bayer-Flamsteed catalog there are only eight visible stars that are more than 7000 light years distant, and these stars are all super mega stars with a luminosity greater than 100,000. Four of these super mega stars are more luminous than Deneb, and four of them are less luminous than Deneb—thus placing Deneb in the middle of the list of the *nine* super mega stars, whose luminosity is greater than 100,000 (of the stars listed in the Bayer-Flamsteed catalog).¹¹ In fact, the first *four* in the list are all grand mega stars, whose luminosity is greater than one million.¹²

As mentioned already, at the feeding of the 5000 there was a conjunction in sidereal longitude of the Sun with Deneb. In this and in other examples (considered below), seen in light of a new star wisdom, stellar latitude is disregarded, although of course latitude is important in order to physically locate a star. The fact that at the feeding of the 5000 Deneb was 60° north of the Sun is ignored. Why? The key concept here, as mentioned above, is the

¹⁰ This information on the distance of Alpha Camelopardalis is from the Hipparcos catalog, the most accurate of all star catalogs, whose measurements were made by the Hipparcos satellite between 1989 and 1993. In turn, the Hipparcos catalog forms the basis for the *Astrofire* star catalog referred to below. Because Alpha Camelopardalis is so far away, it is difficult to assess its true distance and luminosity. On November 24, 2006 Alpha Camelopardalis was featured by NASA as the Astronomy Picture of the Day (APOD), where it was stated that this star is about 4000 light years away (i.e. much closer than indicated by the Hipparcos catalog), and that its luminosity is around 500,000 times that of our Sun, making it one of the most luminous stars in the galaxy – <http://apod.nasa.gov/apod/ap061124.html>

¹¹ By way of comparison with the Hipparcos catalog, according to the Wikipedia “List of Most Luminous Stars” Deneb’s luminosity is given as 250,000 and it is listed as the 32nd most luminous star in our galaxy. In this list there are altogether sixteen grand mega stars whose luminosity exceeds 1,000,000 – http://en.wikipedia.org/wiki/List_of_most_luminous_stars. Note that this list is based on bolometric luminosity. The word *bolometric* refers to brightness integrated (added up) over all wavelengths, whereas the visual luminosity is the brightness only over visible wavelengths. *Bolometric* derives from a Greek word that means “beams of light”. That this list of stars greatly exceeds the Bayer-Flamsteed list is because of the vast extension made possible through modern astronomical observation.

¹² Mega stars have a luminosity of 10,000 or more, super mega stars of 100,000 or more, and grand mega stars of 1,000,000 or more. The Pistol Star, a luminous blue variable supergiant close to the galactic center, was long considered to be the brightest star in our galaxy with a luminosity of approximately 10,000,000. This extremely high luminosity has recently been revised, and now the luminous blue variable hypergiant double star Eta Carina is considered to be more luminous, with a visual luminosity of approximately 4,000,000 and a bolometric luminosity of about 5,500,500. At the present time (2007) the Pistol Star and Eta Carinae are considered to be the two most massive stars in the Milky Way galaxy, so far as is known. Located about 25,000 light years away, the Pistol Star, discovered by the Hubble Space Telescope in the early 1990’s (although the discovery was not announced until October 1997), is not included, of course, in the Bayer-Flamsteed catalog.

meridian running through the star and then intersecting the ecliptic (apparent path of the Sun through the zodiac), whereby the ecliptic can be regarded as the *heart meridian* and point of entry of stellar influences streaming in from outside our solar system. The important factor to consider at the feeding of the 5000 was that the Sun was crossing the Deneb meridian, since the Sun and Deneb were in conjunction at $10\frac{1}{2}^{\circ}$ Aquarius in terms of sidereal longitude. Focusing upon the meridians as *energy lines* flowing through every star, the *entire celestial sphere* becomes astrologically significant.

This discovery signifies a broadening—in relation to the original Babylonian and Egyptian astronomy/astrology based on the ancient sidereal zodiac—to include the entire celestial sphere. For the Egyptians and the Babylonians the sidereal zodiac provided the natural frame of reference for observing the passage of the *planets* (meaning “wandering stars”) against the background of the *fixed stars*. It is thanks to the clairvoyance of the Babylonian astronomer/priests, through the guidance in the sixth century BC of the great Persian initiate Zaratas (Greek: Zoroaster), that the background of the fixed stars was divided into twelve equal constellations/signs of the zodiac, each 30° long, with Aldebaran at 15° Taurus and Antares at 15° Scorpio—this being the original definition of the zodiac.¹³ Each of the fixed stars in the twelve signs was assigned a degree in longitude in the zodiac—Spica, for example, near the end of Virgo, was found to have a zodiacal longitude of 29° Virgo.

Thanks to the star-gazing Babylonians the *exaltations* of the planets were discovered, these being generally identified with stars or star clusters in the zodiac.¹⁴ For example, the Babylonians found that the Moon’s most powerful location (exaltation) in the entire zodiac was when the Moon was in conjunction with the star cluster of the Pleiades in the neck of the Bull (5° Taurus). However, the Babylonian tradition which located the positions of the planetary exaltations was not very exact, and so in modern astrology the Moon’s exaltation is said to be 3° Taurus when in fact it is 5° Taurus, in conjunction with the Pleiades (the Seven

¹³ Robert Powell, *History of the Zodiac* (San Rafael, CA: Sophia Foundation Press, 2007).

¹⁴ *Ibid.*, p. 84, fn.3 and p. 116, fn.4. Cf. also Robert Powell, *Hermetic Astrology* (San Rafael, CA: Sophia Foundation Press, 2007), vol. I, pp. 225-230 which discusses the astrological tradition of planetary exaltations originally called *qaqqar nisirti* (“places of secret revelation”) by the Babylonians.

Sisters). Cuneiform tablet VAT 7851 shows the Moon at exaltation in conjunction with the Pleiades in Taurus. Likewise, the Babylonians discovered Jupiter's exaltation to be in conjunction with the star cluster of Praesepe in Cancer (12½° Cancer). Again, the astrological tradition that Jupiter's exaltation is 15° Cancer is only approximate, because Jupiter's exaltation point is 12½° Cancer, in conjunction with Praesepe (the Beehive).

The clairvoyance of the Babylonians, focused upon the passage of the planets against the background of the fixed stars, led to the discovery of the exaltations as the most potent stellar locations of the planets in the zodiac. The teaching of the exaltations has been fundamental in the history of astrology. Now, with the development toward a new star wisdom encompassing the galaxy, our consciousness is expanded to see the Sun, Moon and planets not just in relation to the constellational background of the signs of the sidereal zodiac, but to include all the stars in the heavens belonging to the entire celestial sphere.

The Mega Stars in Relation to the Healing Miracles in the Life of Christ

Research into the planetary configurations during the life of Christ – inspired by the words from Rudolf Steiner quoted earlier that, “*It was always in accordance with the collective being of the whole universe with whom the Earth is in harmony, that all which Christ Jesus did took place*” – reveals that the most important stellar meridians are those running through the mega stars. We have already seen the example of the Sun at 10½° Aquarius on the Deneb meridian at the miracle of the feeding of the 5000. It should also be noted that, since the miracle of the walking on the water occurred that same night, the Sun at this miracle (at 11° Aquarius) was still on the Deneb meridian also at this miracle. In fact, taking account of Deneb's proper motion, at the time of Christ its longitude was closer to 11° Aquarius, whereas at the present time it is 10½° Aquarius.¹⁵

Ten days prior to the miracles of the feeding of the 5000 and the walking on the water, Christ had healed a paralysed man at the pool of Bethesda in Jerusalem. At this

¹⁵ Robert Powell, *Chronicle of the Living Christ: Foundations of Cosmic Christianity* (Gt. Barrington, MA: Steiner Books, 1996), p. 276; see p. 171 for the horoscope of this event. The miracle of the walking on the water is described in *Matthew* 14:25-33.

miracle, which took place on January 19 in the year 31,¹⁶ the Sun was at 0½° Aquarius on the Sadr meridian which, at the time of Christ, was located at 0½° Aquarius (now it is closer to 0° Aquarius). Like Deneb, Sadr is in the constellation of Cygnus the Swan, also known as the Northern Cross. Sadr means “breast”, and this star, which marks the breast of the Swan (the central star of the Northern Cross), is also a mega star, since its luminosity is 24,388 and it is located at a distance of 1523 light years.¹⁷ Not only these three miracles of Christ, but also other miracles that he performed took place when the Sun was aligned with mega stars, thus emphasizing the importance of these most luminous stars.

For example, at noon on December 28 in the year 29, when the changing of water into wine at the wedding at Cana took place,¹⁸ the Sun was at 8°19' Capricorn in conjunction with a very luminous star at 8°18' Capricorn – a star that is indicated to be even more luminous than Deneb.¹⁹ This star in the constellation of Capricorn, just 11° north of the ecliptic, with an apparent magnitude of +6.4, is scarcely visible to the naked eye, as the value +6.5 denotes the limit for naked eye visibility. Whereas Deneb is the most luminous star of the first magnitude in our local part of the galaxy, known as the Orion Arm, this unnamed star in the direction of Capricorn is at such a distance that its true distance has not yet been confirmed. Thus, neither the distance nor the great luminosity of this star has been reliably determined at the present time. Nevertheless, it is very striking that at the first of Christ's miracles, the changing of water to wine at the wedding at Cana, the Sun was exactly aligned with this mega star identified by the Hipparcos satellite as one of the most luminous stars in our galaxy.

¹⁶ Robert Powell, *Chronicle of the Living Christ: Foundations of Cosmic Christianity* (Gt. Barrington, MA: Steiner Books, 1996), p. 273; see p. 169 for the horoscope of this event. The healing of the paralysed man at the pool of Bethesda is described in *John* 5:1-15.

¹⁷ As with all the other information on various stars given in this article (unless otherwise stated), this information on the luminosity and distance of Sadr is from the Hipparcos catalog, the most accurate of all star catalogs, whose measurements were made by the Hipparcos satellite between 1989 and 1993. In turn, the Hipparcos catalog forms the basis for the *Astrofire* star catalog referred to below.

¹⁸ Robert Powell, *Chronicle of the Living Christ: Foundations of Cosmic Christianity* (Gt. Barrington, MA: Steiner Books, 1996), p. 213; see p. 164 for the horoscope of this event. The miracle of the transformation of water into wine at the wedding at Cana is described in *John* 2: 4-11.

¹⁹ Both the Hipparcos catalog and also the Wikipedia “List of Stars in Capricornus” – http://en.wikipedia.org/wiki/List_of_stars_in_Capricornus - indicate the luminosity of this star to be almost 2,700,000, but this seems to be contradicted by the fact that this star is not included in the Wikipedia “List of Most Luminous Stars” referred to above. Only future observations will be able to confirm whether or not the Hipparcos catalog's high luminosity value of this star holds true or whether it needs to be modified.

Another example of a very luminous star that was aligned with one of Christ's miracles is that of 68 Cygni in the constellation of the Swan. This star, which is located to the left and slightly above Deneb, is an (as yet) undetermined number of light years away. It is certainly a mega star, although its exact luminosity has not yet been confirmed.²⁰ At the time of Christ the longitude of 68 Cygni was almost exactly 20° Aquarius, and the latitude 55½° north of the ecliptic. Crossing the meridian of 68 Cygni, the Sun was at 20° Aquarius on February 7 in the year 30, when Christ raised a girl from the dead. This girl was born into an Essene family, whom Christ Jesus visited at their home in Phasael, six weeks after the wedding at Cana. At that time she was about sixteen years old, and her father's name was Jairus. Jesus warned those present not to speak of what they had witnessed, and this event – which took place less than five months into his 3½-year ministry – was therefore not recorded in the Gospels.²¹ It is remarkable that this raising from the dead took place when the Sun was aligned with a star which the Hipparcos satellite identified as one of the most luminous stars in our galaxy.

Almost sixth months after having raised this 16-year old Essene girl from the dead, Christ Jesus performed a miracle that was recorded in the *Gospel of John* – the miracle of the healing of the nobleman's son. The boy was the adopted son of a high-ranking official in Capernaum, who sent the boy's physical father (who was in his service) to Christ to ask him to come and heal the boy. Christ Jesus, who at the time was teaching in Cana, upon hearing the pleas of the father, healed the boy from a distance. This took place at 1:00 p.m. on August 3 in the year 30.²² At this event the Sun was at 11° Leo, aligned with the mega star Rho Leonis at 11½° Leo, which according to the Hipparcos catalog has a luminosity of 78,000 and is located 5719 light years away – placing this star in the Perseus Arm of our galaxy, on the inside of this arm (the part of the Perseus Arm closest to our Orion Arm).

²⁰ The enormous distance given in the Hipparcos catalog seems to be beyond the bounds of possibility. Regarding luminosity: in the Hipparcos catalog this star is indicated to be the fifth most luminous star of all the stars measured by the Hipparcos satellite, with a luminosity of over 3,300,000. This extremely high value seems to be contradicted by the fact that this star is not included in the Wikipedia "List of Most Luminous Stars" referred to above. Only future observations will be able to confirm whether or not the Hipparcos catalog's high luminosity value of this star holds true or whether it needs to be modified.

²¹ Robert Powell, *Chronicle of the Living Christ: Foundations of Cosmic Christianity* (Gt. Barrington, MA: Steiner Books, 1996), p. 219; see the *Astrofire* program for the horoscope of this event.

²² *Ibid.*, p. 239; see p. 165 for the horoscope of this event. The healing of the nobleman's son is described in *John* 4:46-54.

Just to give one further example – and many more could be given – at the last and greatest of Christ’s miracles, the raising of Lazarus from the dead, which took place early on the morning of July 26 in the year 32, the Sun was at 3°04’ Leo, exactly aligned with the mega star Eta Leonis at 3°04’ Leo.²³ This is the star above Regulus in the “sickle” of Leo. It appears much less bright than the first magnitude Regulus at 5° Leo, which has a luminosity 140 times that of our Sun. The apparent brightness of Regulus is on account of its proximity (77 light years) to our solar system. Eta Leonis, on the other hand, which is 2131 light years away, has a luminosity of 15,087, according to the Hipparcos catalog. When looking up at this star just above Regulus, one can think of it as the “star of the raising of Lazarus”. In the same way one can think of Sadr as the “star of the healing of the paralysed man” and Deneb as both the “star of the feeding of the 5000” and the “star of the walking on the water”.

The discovery of the significance of mega stars shows that true star wisdom is a science that takes into account the entire celestial sphere and not just the stars comprising the signs of the zodiac. This signifies an enormous expansion upon the astrology of the Babylonians, who were focused primarily upon the passage of the Sun, Moon, and five visible planets against the background of the fixed stars making up the twelve signs of the zodiac. Similarly, mega stars represent an extension from the exaltations discovered by the Babylonians. Whereas the exaltations were discovered to be stars or stellar clusters lying within the zodiacal belt, the meridians which run through the mega stars circle around the entire celestial globe. For the use of mega stars in the context of a new star wisdom all that needs to be known, essentially, is the mega stars’ longitudes in the sidereal zodiac. These are known thanks to the star catalog included in Peter Treadgold’s new program *Astrofire*, which lists the longitude, latitude, apparent magnitude, absolute magnitude, type, class, distance and luminosity of more than 4000 stars. Thus, information about the mega stars can be derived from *Astrofire*.²⁴ The *Astrofire* star catalog, in turn, is based on the Hipparcos catalog, which is the most accurate of all star catalogs, whose measurements were made by the Hipparcos satellite between 1989 and 1993.

²³ Ibid., pp. 316-317; see p. 173 for the horoscope of this event. The raising of Lazarus from the dead is described in *John* 11: 1-44.

²⁴ The *Astrofire* program is available from the Sophia Foundation of North America: www.sophiafoundation.org.

In conclusion, therefore, let us gratefully recall our dear friend and colleague Peter Treadgold (1943-2005), the originator of the computer program *Astrofire* that is making possible so much in the field of astrophysical research, including the publication of the ephemerides in the *Christian Star Calendar*. To all our readers we – the authors of the various articles in this issue – hope that you will enjoy the contributions in this issue of the *Christian Star Calendar* and that the ephemerides and commentaries for the twelve months of the year 2008 will prove helpful in deepening a connection with the starry heavens during the coming year.