

## Chapter 25 – Astronomy as a Handmaiden to Religion

‘In the beginning the Earth was without form, and void, and the Spirit of God moved upon the face of the waters’ [*Genesis* 1:1-2]. A very striking description of the state of things in a large old nebula; but the Spirit of God was there, and it was not long before it had drawn order out of disorder. Order is one of the most obvious laws of the heavens, and this is to be perceived clearly in every part of great God’s creation. Astronomy emphasizes the importance of order, although it is silent about the Ordering, or Plan, of Salvation, and there is not the least whisper about that Plan anywhere throughout all of material Creation (while saying this, I am not forgetting the words, ‘Now from the sixth hour there was darkness over all the land unto the ninth hour’ [*Matthew* 27:45] when the Plan of Salvation ‘was finished’ [*John* 19:30]). Yet I believe that there is not one branch of science that teaches more about God and his ways than astronomy. As a handmaiden to religion and godliness there is none other like it. Astronomy gives us wings, and carries us away, and sets us down on one of the great worlds above; and it lingers among those worlds in deep contemplation, giving to us a powerful stimulus to yearn for the eternal and the unchanging. Although those worlds are no more than material, yet there is something pertaining to them that stirs our contemplations up above the Earth, and bestows a heavenly quality upon our entire nature.

There is much astronomy in the Bible, and one familiar with the Bible knows where to look for it. Indeed, the pages of the Bible are teeming with astronomy – although the Bible does not teach astronomy (or any other branch of science) either as an ‘exact science’, or for its own sake, but rather guides us towards God. We know that the Jewish holidays were held according to the particular seasons of the new moons. Watchmen were set on the high places to catch the first glimpse of the new moon, and then they would run to the chief of the Sanhedrin to announce the fact, and a fire would be kindled on the Mount of Olives to let the citizens of Jerusalem know. We know as well that they held festivals at the time of the full moon, and they would reside in tents at the time of the autumn equinox. It was the Harvest Moon – the moon we now call *lleuad naw nos oleu* [‘the moon of the nine bright nights’]. This is a very interesting astronomical fact. At that season, around the 21st of September, when the sun is crossing the equator from the north to the south, the moon, which being in the sign of Aries is in opposition to the sun, and thus full, crosses from the south to the north, ascends higher than usual towards the zenith, and for a week or more rises at close to the same time, that is at sunset.

The Bible also makes a good deal of mention about the seven stars and Orion, about the Pleiades, and Arcturus, and Mazzaroth. And astronomy is occasionally of service to help to explain Scripture – for example in relation to the ‘image which fell down from Jupiter’ [*Acts* 19:35]. Tradition says that Diana of the Ephesians stood on a piece of unadorned rock which was a ‘sky-stone’ (i.e., a meteoric stone). Another noted example is that in connection with the darkness across the whole earth at the time of the Crucifixion. Some might suppose that there was a solar eclipse, but the astronomer knows that that wasn’t possible, because the moon was full or close to full at the time, and a solar eclipse can never take place when the moon is full. St. Augustine of Hippo refers to this in his *De Civitate Dei*.

A very strange story is found in *Joshua* 10: ‘Joshua said in the sight of Israel, “Sun, stand thou still upon Gibeon; and thou, moon, in the valley of Ajalon”’ [*Joshua* 10:12].

As has been said already, teaching astronomy is not the purpose of the Bible, and the knowledge of the ancients about the universe and the wonderful revolutions of the worlds above was not that which we have today. Yet they would speak in accordance with the standard of their knowledge, and in accordance with how things seemed to them. There must have been a ‘miracle’ in the full sense of the word, with a stop put to the revolution of the earth on its poles, which is the same thing as saying that the sun and the moon stood still; and perhaps it would also be possible, if we but knew the whole story, to explain the event in a way wholly consistent with the laws of nature, and yet without being inconsistent with the inspiration of the Bible.

Then again there is the Star of Bethlehem. There is no other satisfactory explanation to be had, other than the acknowledgement of a miracle. The Wise Men of the East were zealous and faithful old astronomers, and their faithfulness was rewarded in this way. There are many who have tried to explain the event in a way rather more astronomical. Kepler supposed that it was a conjunction between Jupiter and Saturn, but which had occurred seven years previously. Others supposed that it was some ‘nova’, or ‘new star’; others still that it was Venus. But as Maunder observed, the story is too incomplete to make anything of it in an astronomical sense. And besides, since the purpose of the Bible is to lead us *to* the babe, the Saviour of the world, the star being merely a means to that, giving too many details about the star would have drawn our attention *away from* the Saviour! I would add this – if *one* star led the wise to the Saviour, how much more should our acquaintance with *millions* of them lead countless numbers of people to try to see the great Creator, and know him better?

Furthermore, astronomy helps us to comprehend the Omnipotence and Omniscience of God. ‘When I consider the heavens, the work of thy fingers, the moon and the stars, which thou hast ordained; what is man, that thou art mindful of him? And the son of man, that thou visitest him?’ [*Psalms* 8:3-4]. Of necessity astronomy draws our attention and our love towards God, for ‘the heavens declare the glory of God, and the firmament sheweth his handywork’ [*Psalms* 19:1]. In what way, then, does astronomy guide us part of the way towards comprehension of the omnipresence and omniscience of God? Dr. Hugh Macmillan suggests a line of reasoning to us. As we have seen in connection with the travel time of light, that is that it travels from the sun to the earth in eight minutes, from Jupiter in 53 minutes, from Alpha Centauri in about four years, from a twelfth-magnitude star in 4000 years; so if we were able to move from place to place in the universe, we could see the whole history of the world going on before our eyes. From a twelfth-magnitude star we would see the earth and its tumults, if we could see them at all, as they were in the time of Abraham, and perhaps we’d get to see the old patriarch starting out on his journey ‘not knowing whither he went’ [*Hebrews* 11:8]. And thus also for other worlds. Does this not show clearly that since God is omnipresent, he must of necessity be omniscient too? It is a fraudulent science which ignores God; there is a kinship between the visible and the invisible, and Spirit permeates it all. The science that does not acknowledge God is blind and knows nothing. The divine wings of contemplation bear us up to the heights, and set us down at the feet of the Almighty. Astronomy teaches us, given how great and glorious Creation is, how much more infinitely great is God Himself, ‘He who stretcheth out the north over the empty place, and hangeth the earth upon nothing’ [*Job* 26:7].

As the sailor on the broad ocean looking at the stars, so is man on the ocean of life,

‘Yn ddyn heb neges dan y sêr  
Ond ’mofyn am ei Dduw’

‘A man with no errand beneath the stars  
Save seeking for his God.’

Now then, o man, watch the heavens, and count the stars if you can count them. Stare into the unfathomable depths of the Milky Way, where there are immense suns heaped together in their millions of millions, one behind the other, until in contemplating the vision one loses oneself entirely in utter perplexity, heart swooning within as one thinks about the boundlessness of great God’s Creation.

While thinking about this, Jean Paul Richter’s eloquent words, which were translated into English by De Quincey,<sup>1</sup> come alive before us:

‘God called a man from his dream to the hall of the heavens, saying, “Come hither and see the glory of my house”. And to the angels around His throne He said, “Take him, and divest him of his clothing of flesh. Cleanse his sight, and put new breath in his nostrils, but change nothing of his human heart, the heart which weeps and quakes”. Thus it was done, and with a mighty angel as a companion to him the man stood ready for his endless voyage; and from the high promenade of the heavens, mute and without a word of farewell, away with them into the boundless void. Sometimes on swift angel wings they would fly through Sahara-like deserts of darkness and death, which separate worlds of life; other times they would rush on across frontiers which were alive by the prophetic stirrings of God. Then, from a distance which would have been immeasurable, save by the standard of the heavens, for a second there dawned a light through some insubstantial veil. With inconceivable swiftness the light drove itself towards them, and they themselves towards the light. In a second the onrush of the planets was upon them, burning suns all around them!

Then came eternities of twilight, which revealed yet were not themselves revealed. On the right and on the left arose immense constellations, amassed on every side – those which, by frequent re-expression and by answering from afar, had built across opposed locations gates of glory, the pillars and arches of which rose up to the heights, level, upright, and still, across spans which appeared illusory by their very infiniteness. The pillars were immeasurable, the arches countless, the gates beyond the mind’s capacity. From within were steps to ascend the eternities on every side. The highest became lowest, and the lowest highest, to a man divested of his flesh; here a depth which was swallowed by an impassable height, there a height which was swallowed by an unfathomable depth. Then suddenly as they were flying on from boundlessness to boundlessness, without warning as they were poised above bottomless depths of worlds, there arose a cry, that systems yet more mysterious, waves upon waves of worlds, heights and depths, were coming – were drawing – close.

Then the man sighed, and stood, and wept in terror. It was his overburdened heart that poured itself forth in tears: “O angel, I will not go a step further, since the spirit of man grows faint before this infinity. The glory of God may not be endured! Would that I were left to lie in the grave, would that I were hidden from the oppression of the Infinite, for I do not see an end anywhere.” And lo, all the stars that were listening and shining

about him answered with one voice, "True, true, what the man says. There is no end, so far as we have ever heard." "Is there indeed no end?" asked the angel in amazement. "Is it true that there is no end? And is this the anxiety that is oppressing you?" But there was no voice there in answer, thus could the angel give the answer himself. He raised his glorious hands to the heaven of heavens and said, "No, no, never is there an end to the Creation of great God. And lo, neither is there a beginning!"

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<sup>1</sup> 'Jean Paul Richter' is the German Romantic writer Johann Paul Friedrich Richter (1763-1825), more commonly known simply as Jean Paul. The passage that follows is a very free adaptation by Evans of Thomas De Quincey's translation of Richter's 'Dream Upon the Universe'. For De Quincey's version see *Confessions of An English Opium-Eater* (Walter Scott, London, 1886), pp. 260-6.