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RESEARCH ARTICLE

ASTRONOMICAL IMAGERY IN THE WORK OF THE PRE-RAPHAELITE BROTHER (AND SISTER) HOOD

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ABSTRACT

The Pre Raphaelite Brotherhood (PRB), founded in 1848 by William Holman Hunt, John Everett Millais and Dante Gabriel Rossetti, sought to produce art in a purer simpler form by looking back to late medieval and early Renaissance painting. They emphasised the natural world in an almost religious-like devotion to truth, basing their works on the observation of nature and the study of science. Astronomy was one of many sources of inspiration that members of the PRB derived from nature – and many of them were fascinated by the night sky and used astronomical symbolism to express their ideas. Key proponents were George Frederick Watts, and later generation pre-Raphaelites such as Arthur Hughes and Edward Burne-Jones whose works can be examined in the context of contemporary astronomical thinking and discoveries. Significantly, one of the female members of the group Evelyn De Morgan (née Pickering, 1839-1917) seems to have done as much as, if not more, than others in promoting the depiction of astronomical features, particularly the moon. Her works reflect underlying astronomical themes with specific scientific influences. She was very involved in women's education and the suffragette movement, and it surely cannot be coincidence that her husband's father, Augustus de Morgan, was a well-known mathematician and astronomer. He had a crater on the moon named after him and he also acted as tutor to the famous mathematician Ada Lovelace. Exploration of astronomical features in the work of the Pre-Raphaelites reveals a special role for female artists associated with the movement.

KEYWORDS: *Pre-Raphaelite, Astronomical Imagery, Astronomy, Cosmology, Nineteenth-century, Stars, Paintings*

1. INTRODUCTION

The key tenets of the Pre Raphaelite Brotherhood (PRB), founded in 1848 by William Holman Hunt (1827-1910), John Everett Millais (1829-96) and Dante Gabriel Rossetti (1828-82) were: 'To have genuine ideas to express; to study Nature attentively, so as to know how to express them; to sympathize with what is direct and serious and heartfelt in previous art, to the exclusion of what is conventional and self-parading and learned by rote; and most indispensable of all, to produce thoroughly good pictures and statues.'¹ Hunt, Millais, Rossetti and other associates, as the group expanded, sought to produce art in a purer simpler form by looking back to medieval, proto-Renaissance and Italian Quattrocento styles, emphasising the detailed observation of the natural world in an almost religious-like devotion to truth. Strongly influenced by the spiritual qualities of medieval art, they rejected the distorted mannerist art that followed on after Raphael. They also rebelled against the formal approach of the Royal Academy of Art and its 18th-century founder Sir Joshua Reynolds, seeking rather to base their works on the observation of nature and the study of science. Astronomy was one of many sources of inspiration that members of the PRB derived from nature – influenced also by the writings of John Ruskin (1819-1900) as the group and its followers expanded and developed, leading into the Arts and Crafts Movement and Art Nouveau.

2. PRB AND SCIENTIFIC OBSERVATION

Many of the Pre-Raphaelites were fascinated by the night sky and used astronomical symbolism to express their ideas. Key proponents were George Frederick Watts (1817-1904) and later generation pre-Raphaelites such as Arthur Hughes (1832-1915) and Edward Burne-Jones (1833-98), whose works bear some relationship to contemporary scientific observation – in an age when Charles Darwin (1809-82) and others were achieving fame for their scientific approach to age-old questions. The close observation of nature was coming to the fore in a range of scientific disciplines – botany, biology, geology and geography – but also, and perhaps especially, astronomy at this time. Much of this thinking also came to be reflected in the art of the period. Recurring astronomical and cosmological themes, such as the creation, sun, moon and stars, in Pre-Raphaelite paintings of this period indicate an interest in astronomical phenomena and discoveries. One of the female members of the group Evelyn De Morgan (née Pickering, 1839-1917) seems to have done as much as, if not more, than others in promoting the depiction of astronomical features, particularly the moon, in art at this time. Many of her works seem, on the surface, to reflect a Victorian sentimentality about the sun, moon and stars, but it seems they had more serious underlying astronomical themes with specific scientific influences – reflecting the duality of scientific and artistic themes in the work of De Morgan and other Pre-Raphaelites. Close connections with at least one leading astronomer of the age (Augustus de Morgan) seem to indicate specific scientific sources for her interests in astronomy. s

3. FOUNDERS OF THE BROTHERHOOD

Looking first at a few examples of works by the three original founders of the Brotherhood, Holman Hunt's *The Scapegoat*, 1854-56 (Lady Lever Art Gallery, Liverpool) is illustrative of Leviticus 16 where, on the day of atonement, the goat (analogous to Christ) takes on the sins of the community as it is driven into the parched desert wilderness. Although Christ was often depicted as a lamb, the depiction of Christ personified as a goat was a very revolutionary approach – rather than depicting Christ Himself in the wilderness. The setting sun casts long shadows as it is reflected on the mountain range in an evening setting. The full moon shown at top left (opposite the sun which is not depicted), emphasises the God-forsaken wasteland. A smaller preliminary version, in the Manchester Art Gallery, includes a rainbow as an indication or glimmer of hope.



¹ The PRB manifesto, as recorded by William Michael Rossetti, cited in his *Dante Gabriel Rossetti. His Family-Letters with a Memoir* (Vol. 1) 1895, p.135. See: (accessed 1 January 2018), <http://www.rossettiarchive.org/docs/pr5246.a43.rad.html>

Figure 1. **Holman Hunt, *The Scapegoat* (1854-56)**

An example by Millais, his *Blind Girl* of 1856 is also notable for its realism. The girl cannot see the rainbow, one of the beauties of nature that she cannot experience. The choice of a dramatic celestial phenomenon, rather than, say, a landscape, flower or other thing of beauty is significant, as is the fact that Millais repainted the double rainbow (used for increased emphasis of the tragedy of her condition) with the colours inverted in the second rainbow, for scientific accuracy.

By contrast, Rossetti's *Dantis Amor* 1860 (study and final painting) draws on medieval art to portray 'L' Amor che muove il sole e l'altre stelle' ('The Love that moves the sun and the other stars') – identifying the sun as a star and using varied but stylised sun and stars to convey the pathos of the death of Beatrice and her transition from earth to heaven, as Dante himself looks on. Love is the generating force of the universe.



Figure 2. **Dante Gabriel Rossetti, *Dantis Amor* (1860)**

4. LATER MEMBERS OF THE BROTHERHOOD (WATTS, HUGHES and BURNE-JONES)

Following the original members of the Brotherhood, leading and later Pre-Raphaelites also included astronomical and cosmic imagery in their work – significantly to an even greater extent. But were there any direct influences of contemporary astronomical thinking and discoveries? Works by the rather older George Frederick Watts (1817-1904) can be seen at the Watts Gallery and Artists' Village in Compton, near Guildford in Surrey, whilst works by later generation Pre-Raphaelites such as Arthur Hughes (1832- 1915) and Edward Burne-Jones (1833-98) are to be found in the Birmingham City Art Museum and the Tate Britain in London.

George Frederick Watts (1817-1904), sometimes described as 'the English Michelangelo', travelled widely in Italy and Greece and was interested in synthesising spiritual ideas and modern science, especially the ideas of Charles Darwin. His painting, *After the Deluge* (1885-92) was first exhibited under the title *The Sun*, and depicts the moment the vast and all-powerful sun reappears after the flood (according to *Genesis* 6-9). Watts intended to portray the deity in the act of (re)Creation, whilst avoiding specifically to depict the Creator. Watts felt it impossible to depict the Creator emerging at that moment:

'Ah no', he said, 'But that is exactly what I could wish to make those who look at the picture conceive for themselves. The hand of the Creator moving by light and by heat to re-create. I have not tried to paint a portrait of the sun – such a thing is unpaintable – but I wanted to impress you with the idea of its enormous power.'

Watts' painting of *Chaos* (also known as *Chaos Passing to Cosmos* or simply *Creation*) was painted in 1873-75 and designed to be part of a series of murals depicting the progress of the cosmos. He addresses the ideas of time and evolution as the planet passes from chaos to order by means of evolution of the species, as well as the planet itself.

In a later work, *Progress* (1888-1904), the advance of science is again symbolised. The elders look downwards to search in old books, or to scabble for gold in the earth, whilst the youth looks upwards towards the sun, symbolising power and progress. *Sun, Earth and their daughter Moon* (1899-1902) are shown as personifications of these cosmological phenomena, demonstrating the relation between them.

One of Watts's most striking works *The Sower of the Systems*, 1902, seems to anticipate Symbolist and even Abstract art. God, or the Prime Mover, is depicted as an amorphous shape – a robed but faceless figure, sweeping across space, in the midst of and merged into a dramatic swirling of stars, galaxies, nebulae and interstellar dust.



Figure 3. George Frederick Watts, *The Sun*, 1885-92 (right) *The Sower of the Systems*, 1902 (left)

The depiction of the perceived centrifugal forces of creation demonstrate Watts's awareness (by now in his 80s) of cosmological thinking. Watts was fascinated by star-gazing and, after having observed the rings of Saturn through Sir James South's telescope, had commented that 'it was a sight that dwarfed all others.' Watts had a great admiration for scientists and wrote that they were 'dwelling...in a kingdom of infinite wonder – larger than that of the poet or artist.' In his home at Compton, *Limnerslease house*, a reading nook for himself and his wife Mary (destroyed) was decorated with astronomical symbols:



Figure 4. Reading nook at Limnerslease House, Compton

Watts' life and career spanned an enormous length of time, born in the Georgian era in 1817 when George III was still on the throne, he lived to 1904 and the beginning of the twentieth century and the coming build-up to the First World War – a period that also saw immense changes and developments in science and astronomy.

Arthur Hughes (1832-1915) and Edward Burne-Jones (1833-98), on the other hand, were near contemporaries, and still youthful at the time of the astronomical advances at the end of the nineteenth century. Arthur Hughes painted a significant number of works where nocturnal scenes or settings were chosen, seemingly as an excuse to portray the night sky. Arthur Hughes' *Carmina Nuptialia*, a wood engraving of 1869 illustrating

16th century 'nuptial songs' provides the setting for a starry night complete with waning gibbous moon. About the same time, Hughes depiction of *Sir Galahad*, 1870 appears to be a deliberate attempt to select a night scene so as to enable depiction of starry symbols and formations. His late work, *Caedmon's Awakening* (1912-14), also provides an excuse for a nocturnal scene. Caedmon was the earliest English poet whose name is known (active 657-684), as recorded by Bede (b. 672-735). Stimulated by a dream, he awakened inspired to compose poetry, thereby providing an excellent subject for a nocturnal scene, complete with starry night.

Nocturnal scenes with astronomical imagery are also evident in the works of Edward Burne-Jones (1833-98), such as the dramatic emphasis on the star held by the angel in the large (101x152cm) watercolour, *Star of Bethlehem* (1890). The star is the powerful focus after which the whole work is named, rather than the Nativity and Adoration of the Magi.

In *Night* (1870, Fogg Museum), the personification of Night as a beautiful maiden bears the inscription:

'I AM NIGHT AND BRING AGAIN/HOPE OF PLEASURE REST FROM PAIN/THOUGHTS UNSAID
TWIXT LIFE AND DEATH/ MY FRUITFUL SILENCE QUICKENETH'

emphasising the beauty and blessedness of night and the stars rather than the horrors of darkness.



Figure 5. Edward Burne-Jones, *Night* (1870)

In other works by Burne-Jones dating from the same period such as *Night* (1870, also in the Fogg Art Museum) and *Evening Star* (1870) he depicts personifications of the phenomena in naturalistic night scenes while seemingly attempting to place scientific arrangements of stars in the backgrounds. The resemblance of Burne-Jones's figures to Botticelli's (such as featured in *Primavera*, 1482 and *Birth of Venus*, c 1480) demonstrates the Brotherhood's desire to return to the traditions of Quattrocento Italy.

Astronomical themes and details are also much evident in Burne-Jones' decorative art work, much of which was carried out in collaboration with William Morris. The stained-glass east (altar) window of St James's Church, Staveley, Cumbria 1864-5 was actually made by William Morris to Burne-Jones' designs, depicting joyous scenes of the *Ascension* with angels and stars in abundance. The *Crucifixion* scene at Staveley also provides the opportunity to show the sun, moon and stars when 'from noon on, darkness came over the whole land' (Matthew 27).

Further personifications are evident in a series of Burne-Jones' paintings of *Luna* in the 1870s, which were based on the poetry of Christina Rossetti (1830-94, wife of Dante Gabriel), particularly poems from her book, *Sing Song: A Nursery Rhyme Book* 1872. Of the moon, she writes:

Is the moon tired? she looks so pale
 Within her misty veil:
 She scales the sky from east to west,
 And takes no rest.
 Before the coming of the night
 The moon shows papery white;
 Before the dawning of the day
 She fades away.

Burne-Jones images of *Luna* seem to be of rather weak and melancholic women, contrasting with the powerful Christian image from the *Book of Revelation* of: 'a woman clothed with the sun, and the moon under her feet, and upon her head a crown of twelve stars' (12:1), identified as Mary. Other examples of religious subjects in nocturnal settings by Burne-Jones include *The First Marriage* [of Adam and Eve] which is strange because not only is a nocturnal setting not implied in the scriptures, no marriage ceremony is described in Genesis. It is simply stated that Adam was the husband of Eve (Genesis 3:6), implying that they were therefore married. Burne-Jones's *Jacob's Ladder* (1898) is also set at night where the nocturnal scene includes a mass of stars. Finally, *Days of Creation* (1870-76, Fogg Art Museum) is a magnificent rendering of the six days of *Creation* - especially the *Separation of Light and Dark* (first day) and the *Creation of Sun, Moon and Stars* (fourth day).



Figure 6. Edward Burne-Jones, *Days of Creation* (1870-76)

5. SISTERHOOD: EVELYN DE MORGAN

And yet, as signified by the 'play' on brotherhood-sisterhood in the title above (and also indicated by the role of female poets such as Christina Rossetti), female artists also contributed to the Pre-Raphaelite movement. Significantly, one of the female members of the group Evelyn De Morgan (née Pickering, 1839-1917) seems to have done as much as, if not more, than others in promoting the depiction of astronomical features, particularly the moon, in art. Many of her works seem, on the surface, to reflect a Victorian sentimentality about the sun, moon and stars - but it seems they had more serious underlying astronomical themes with specific scientific influences. A keen follower of Burne-Jones who often featured astronomical subjects, she was married to William De Morgan - a leader of the Arts and Crafts movement and close associate of William Morris.²

Evelyn De Morgan was highly educated and keenly involved in scientific developments of the time - and, it seems, particularly in astronomical imagery. It cannot be coincidence that her husband's father, Augustus de Morgan (1806-71), was a well-known mathematician and astronomer, who had a crater on the moon named after him. He was also the one-time tutor to the famous mathematician Ada Lovelace, who is often attrib-

² C. Gordon, ed., (1997), *Evelyn De Morgan, Oil paintings*, London.

ed with the original concept of computer programming.³ Evelyn herself was very involved in women's education and the suffragette movement. Her views of the importance of contrasts between the material and spiritual worlds are relayed by the use of star imagery in *Earthbound* (1897) where the miser looks downward to seek for golden and treasures whilst the beautiful swirl of stars above show what is more important. Similarly, the starry background of *Mammon* (1909) indicates the importance of the spiritual over earthly riches.

Works with astronomical themes by Evelyn Pickering-De Morgan included many personifications of astronomical phenomena, such as *Dawn* and *Dusk* (1886, where the beautiful Dawn awakes as Night flees) and *Evening Star over the Sea* (1900-19, where Venus personified hovers as the land grows dark). Three works on the themes of *Twilight* (with its subtle lighting effects), *Night* and *Dawn* (where night crouches beneath the moon and stars); and *Sunbeam* and *Summer Shower* all date from around 1900 and - in contrast to some of the works by the male artists of the period - include strong, robust and liberated women! The depiction of the moon was another major theme in her work, as shown in *Sleeping Earth and Wakening Moon* (1900); *Sleep, Death and the Children of the Night* (1883) and the evocative *Moonbeams Dipping into the Sea* (1900).



Figure 7. Evelyn De Morgan, *Moonbeams Dipping into the Sea* (1900)

De Morgan's *Luna* of 1855s again shows the Moon personified as a female - enveloped in ropes signifying the way that the moon is bound to the earth in its daily and monthly rounds - and perhaps also the constraints applicable to educated women of the time.

³ Augustus De Morgan (1806-71) was the originator of De Morgan's laws on Boolean algebra, and published a thesis on *The Globes, Celestial and Terrestrial* (1845) as well as being tutor to Ada, Lady Byron.



Figure 8. Evelyn De Morgan, *Luna* (1885)

The underlying astronomical themes of Evelyn De Morgan's works show how artists were increasingly looking upwards to the night sky in a way that had hardly been matched before. Well-educated and influenced by those around her, De Morgan's work reflects the era of the end of the 19th century and the ways that education was becoming increasingly accessible. More research is needed to examine the scientific sources and influences that affected her output, and whether any direct resemblances to stars and constellations can be detected. There was undoubtedly increased interest in the second half of the nineteenth century in the cataloguing of stars, study of starlight and the physical processes involved – leading to the increased activities of observatories and the eventual development of astrophysics.⁴

6. THE WANING OF THE PRB: EDWARD HUGHES

Finally, amongst the works of later generation Pre-Raphaelites, the paintings of Edward Hughes, 1851-1917 (nephew of Arthur Hughes, mentioned above) stand out for their use of astronomical imagery. Greatly influenced by his uncle and the paintings of William Holman Hunt, Edward Hughes became well-known for his portraiture and as a watercolourist. An excellent draughtsman, he specialized in literary and allegorical subjects but his oeuvre also included works inspired by astronomical and cosmological phenomena. 'The coming of twilight is the time to see things' he observed, and his painting of *Night with her Train of Stars* 1912, reflects his serious interest in astronomy, as the stars appear to be scientifically, rather than arbitrarily placed.⁵



Figure 9. Edward Hughes, *Night with her Train of Stars, and her Great Gift of Sleep* (1912)

⁴ Hoskin, Michael, Ed (1999 first edition), *The Cambridge Concise History of Astronomy*, Cambridge University Press, especially Chapter 8.

⁵ Victoria Jean Osborne (2009) *A British Symbolist in Pre-Raphaelite Circles: Edward Robert Hughes (1851-1914)*. Unpublished MPhil thesis University of Birmingham, pp. 36ff, 59, 63-65, and 80ff.

The work illustrates the poem *Margaritae Sorori* ('to my Sister Margaret') by William Ernest Henley 1849-1902 expressing the idea of death as a kind of sleep.



Figure 10. Edward Hughes (detail of Figure 9)

The detail shows apparently realistic star formations, as opposed to the stylized treatments previously favoured by most artists. Another example by Edward Hughes demonstrating a similar approach, Figure 11 below, entitled *Night*⁶ shows links to observation and astronomy at the time, being reminiscent of the Corona Borealis.



Figure 11. Edward Hughes, *Night* (private collection)

The naming of the constellation relates to the story of Princess Ariadne of Crete who helped Theseus defeat the Minotaur. They sailed off together but Theseus later abandoned her. Ariadne was found weeping by the god Dionysus who fell in love with her. At their marriage, Ariadne wore a circlet of stars which she tossed into the sky, where the jewels turned into stars and became the constellation Corona Borealis. Hughes' depiction of *Night* seems to bear reference to realistic depiction of the constellation and the legend – contrasting with earlier renderings of similar subjects, for example Francesco Cozza's *Allegory of Astronomy* (1670) where the crowning circlet of stars is totally stylized.⁷

⁶ Whereabouts unknown, sold at Christies, London in 2004 <http://www.christies.com/lotfinder/Lot/edward-robert-hughes-rws-1851-1914-night-4295744-details.aspx> (accessed 4 February 2018).

⁷ I am grateful to the late great Professor Ron Olowin for providing the comparison with the Corona Borealis and also the example by Cozza.



Figure 12. Francesco Cozza, *Allegory of Astronomy* (1670)

7. COMPARISONS AND CONCLUSIONS

Space does not allow detailed examination here of the ways in which the Pre-Raphaelites epitomised nineteenth-century rebelliousness, by looking back for inspiration from the past at the same time as contemplating contemporary new scientific thought. This is demonstrated here by the featuring of astronomical imagery. They shook up the art world, rebelling against the art establishment, using art to influence society and becoming one of the first modern outspoken art movements.⁸

This short overview clearly demonstrates that the interests of the English Pre-Raphaelites, both early exponents and later (including female generations) extended to the illustration and interpretation of astronomical phenomena which was widely followed by those wishing to engage with scientific realism of the age. Of course their work was not exclusively so, as shown by continental artists such as Jean-Francois Millet (Fig 13) and Karl Nordstrom who clearly depicted constellations such as Orion (Fig 14).



Figure 13. Jean-François Millet, *Nuit Étoilée* (1850-65)

⁸As Tim Barringer explains in *Pre-Raphaelites: Victorian Avant-garde* (2012).



Figure 14. Karl Nordström, *Winter Night* (1915)

Astronomical features in the work of the PRB and its followers do however demonstrate a different, more naturalistic approach than before, particularly featuring the sun, moon, stars whilst addressing both aesthetic qualities and their beauty as well as a consciousness of the scientific discoveries and ideas of their times. The role of educated female poets and artists in the late nineteenth, who were closely linked to the Pre-Raphaelites - especially Christina Rossetti and Evelyn De Morgan also played a major part in linking art works to observations and astronomical concepts of their time.

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