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Coleridge's 'Web of Time': The Herschels, the Darwins, and 'Psalm 19.'

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"Are those bright orbs," he exclaims, "inhabitable worlds like ours? Lo, even while we gaze, one falls down the deep blue vault and vanishes away. Was a WORLD, in the inscrutable providence of the SUPREME then blotted from being? Is *our* universe but as a star... suddenly to fall and fade, like a transient meteor in the sky?"

from "Celestial Reverie," *The Editor's Table*
The Knickerbocker, 1838

THAT QUOTE shows the inculcation, in popular culture, of the move from a static cosmography of the heavens to a dynamic cosmogony. Cosmography is a general world view of the universe. Cosmogony is that world view as it is developed through time. In terms of astronomy, it is the study of the evolution of the universe. The scientific idea of the evolution of the universe developed with William Herschel's invention of stellar astronomy. Prior to his work, astronomy meant planetary astronomy, as the science concentrated only on heavenly bodies that seemed to move. Beyond the study of the solar system, all astronomers and intellectuals from ancient times through the Renaissance reiterated the idea of the 'fixed' stars, the eternal, perfect, realm of God. The Ptolemaic view of the heavens in the middle ages had circles extending from the earth out in perfect spheres; in the Renaissance the geocentric views were displaced. Marjorie Nicholson, in her formative study of Renaissance science *Breaking the Circle*, states that the new science of the seventeenth century broke poetic metaphors like Donne's circle of perfection.¹ Just as seventeenth century astronomy shattered the geocentric conception of space, in the late eighteenth and early nineteenth century William Herschel's stellar astronomy and evolution of the universe similarly destroyed the Renaissance clockwork of linear time, a development with far reaching philosophic and poetic consequences for Samuel Taylor Coleridge.

*Herschel was the first to propose the disc-shaped structure of the universe and to propose that that universe had a definite beginning in nebulous matter, was aging, and consequently would die. Herschel, in his study of stellar nebulae, became one of the first astronomers to make theoretical speculation as to the relationship of brightness, distance, and structure of the stars. Regarding studies completed by Herschel as far back as 1789, Michael Crowe writes, 'It is significant that in this study, he took not only a cosmological but also a cosmogonical approach, suggesting that the degree of compression in

¹ Nicholson, Marjorie, *The Breaking of the Circle: Studies in the Effect of the 'New Science' Upon Seventeenth-Century Poetry*, Revised edition. (New York and London: Columbia University Press, 1960) p. 155.

any globular cluster is an indication of its age.² Herschel continued to develop these views over the next twenty five years. In an 1814 paper published in the *Philosophical Transactions of the Royal Society* Herschel wrote:

...the incessant action of the clustering power has brought it to the present, is a kind of chronometer that may be used to measure the time of its past and future existence; and although we do not know the rate of going of this mysterious chronometer, it is nevertheless certain, that since breaking up of parts of the milky way affords a proof that it cannot last for ever, it equally bears witness that its past duration cannot be admitted infinite.³

In this discussion lay the groundwork for a reformulation of the conception of space and time for poets and intellectuals like Coleridge. The world went from having a cosmography to a cosmogony. The celestial world, in this view, was no longer unchanging and fixed; it therefore, could not be eternal. If the heavens were no longer eternal, then human existence was not in contrast to eternity—it was an *adumbration* of transience. The very possibility that *nothing* was eternal loomed in the shadows of this knowledge which helped create the human experience of the nineteenth century; yet, it also tore apart the former belief system.

The integration of this new world view based on the natural sciences and the old world of the Hebraic and Christian God was the project which consumed the last half of Coleridge's life. Integration of the ideal and eternal as embodied in the Christian God and the empirical evidence within the explanatory cosmogonical model provided by astronomy, is the focus of the poems 'Coeli Enarrant,' and 'Limbo.' In his book *Coleridge's Later Poetry*, Morton D. Paley traces the poem 'Coeli Enarrant' to a *Notebook* entry from 1807, pointing out that Coleridge's acknowledged inspiration, Du Bartas' *Divine Weeks*, is actually 'a counter text presenting generally accepted Renaissance ideas about the universe that are explicitly rejected in Coleridge's poem.'⁴ Paley follows the literary and philosophic divergences from Renaissance ideas; I investigate these ideas of the universe in light of the Renaissance scientific ideas and Coleridge's rejection of that science. 'Coeli Enarrant,' Du Bartas', and the Psalm⁵ from the Bible from which both are inspired, are each a representative paradigm of the understanding of the universe from specific Hebraic Christian traditions, at different times.

² William Herschel, "Astronomical Observations Relating to the Sidereal Part of the Heavens, and its Connection with the Nebulous Part: Arranged for the Purpose of Critical Examination," *Philosophical Transactions of the Royal Society*. 104(1814), pp. 248-284. <http://www.jstor.org/view> 1 Jan 2005.

³ William Herschel, "Astronomical Observations Relating to the Sidereal Part of the Heavens, and its Connection with the Nebulous Part: Arranged for the Purpose of Critical Examination," *Philosophical Transactions of the Royal Society*. 104(1814), pp. 248-284. <http://www.jstor.org/view> 1 Jan 2005.

⁴ Morton Paley, *Coleridge's Later Poetry*. (Oxford: Clarendon Press, 1996) pp.37-38. The Notebook entry is found in notebook 19.

⁵ Psalm 19 is a steady inspiration for the world as divine text. For example, Sir Philip Sydney's poem entitled 'Coeli Enarrant: Psalm 19.'

Du Bartas' *Divine Weeks* was, prior to Milton, the most widely circulated view of the Christian cosmology available in the Renaissance. In it, Du Bartas, as translated by Sylvester, clearly articulates a fixed and eternal temporal realm of God in the heavens, though the exact nature of the geocentric spatial spheres is questioned:

But ev'n as many (or more) quarrels cumber
 Th' old heathen schools about the heavens' number.
 One holds but one; making the world's eyes shine
 Through the thin-thickness of that crystal line,
 (As though the ocean's clear and liquid flood
 The slippery fishes up ad down do scud).
 Another, judging certain by his eye,
 And, seeing seven bright lamps mov'd diversely,
 Turn this and that way: and, on th' other side,
 That all the rest of the heav'ns' twinkling pride
 Keep all one course; ingeniously, he varies
 The heav'ns rich building into eight round stories.
 Others amid the starriest orb, perceiving
 A triple cadence, and withal conceiving
 That but one natural course one body goes,
 Count nine, some ten; not numb'ring yet (with those)
 Th' empyreal palace, where the eternal treasures
 Of nectar flow, where everlasting pleasures
 Are heaped-up, where an immortal May
 In blissful beauties flourisheth for ay,
 Where life still lives, Where God his sises holds
 Environ'd round with Seraphins and souls
 Bought with his precious blood, whose glorious flight
 Erst mounted earth above the heavens bright. ⁶

These lines clearly show an eternal realm in those 'fixed' stars of astronomy, no matter what version of the spheres of the moving world of the solar system one ascribed to. The realm of God inhabiting the 'empereal palace' is clearly unchanging, eternal, immortal, in this reality. In the Renaissance cosmography the idea of a temporality of the universe is clearly limited to the solar system and its 'seven bright lamps' which move 'diversely.'⁷ The fixed realm of the heavens is eternal, with no beginning, no ending.

Psalm 19, an original Hebraic/Christian inspiration for the world as natural text of God, focuses on the sun.⁸ The movement in this poem is

⁶ *Guillaume de Salluste Du Bartas, Bartas: his Devine Weekes and Workes*, trans. Joshua Sylvester, facsimile edition, (Gainsville: Scholars' Facsimilies and Reprints, 1965) lines 2.1077-2.1100.

⁷ The seven 'lamps' could include the planets Mercury, Venus, Earth, Mars, Jupiter, and Saturn along with the moon. These were the only known moving objects in the heavens until 1781 when William Herschel discovered Uranus, when he became the first person to discover a planet outside of classical times.

⁸ Psalm 10; *The New Oxford Annotated Bible*, Michael D. Coogan, ed., (Oxford:Oxford University Press, 2001) pp. 790-791 Hebrew Bible.

limited to the geocentric vision of the sun moving around the earth. The circuit of the sun through the sky marks the heavenly body (19.6), providing the most important division of time for early man—the day. It also operates as the metaphor for the surveying Old Testament God in the phrase ‘nothing is hid from its heat’ (19.6), in that everything is under the divine eye.⁹ The night sky again is where one finds evidence of the work and word of God:

The heavens are telling the glory of God;
and the firmament proclaims his handiwork.
Day to day pours fourth speech,
and night to night declares knowledge.
There is no speech, nor are their words;
their voice is not heard;
yet their voice goes out through all the earth,
and their words to the end of the world. (Psalm 19.1-4)¹⁰

Nature, specifically the skies, is the text which communicates the divine to the human. Here the text is oral rather than written in nature, reflecting the oral poetic tradition of the Jews. The word choice clearly shows the cosmography of the culture. Ancient Hebrews believed that the “firmament” *was* water. Therefore, the phrase “day to day pours forth speech” (19:1).¹¹ The skies operate as the word of God; the endless cycle of day to day and night to night is the eternal reiteration of God.

Coleridge’s poem ‘Coeli Ennarant,’ which means ‘exposition of the heavens,’ provides a view of the celestial realm in the newly cosmogonical universe of Herschel; it necessarily struggles with the new temporality of the universe. ‘Coeli Ennarant’ certainly diverges from the Renaissance paradigm and from the Biblical one as well. The divergences are manifested in part in Coleridge’s poetic process. The poem as it has appeared in print is incomplete compared to the *Notebook* entry.¹²

The *Notebook* entry has a few false starts. The first of these begins ‘Fire, That slept in its Intensity, Life /Wakeful over all knew no gradations.’¹³ The first image is that of fire, which presides over all life. This metaphor takes into account several of the aforementioned notions changing the way humanity viewed itself in the universe. First, the entity presiding over all life is not a supernatural being, like those of Du Bartas, rather it is a natural force at an elemental stage. This notion echoes the idea of the development of stars and their systems from the nebulous matter, squarely William Herschel’s view. This revolutionary idea showed up even earlier in literature in the poetry of

⁹ Ibid.

¹⁰ Ibid.

¹¹ Ibid.

¹² Samuel Taylor Coleridge, 3107. *The Notebooks of Samuel Taylor Coleridge: Volume 2 1804-1808*. Ed. Kathleen Coburn. (New York: Bollingen, 1961).

¹³ Ibid., lines 1-2. All line numbers will be given from this first line of the entire entry, not beginning with the last eleven lines as they appeared in publication.

Erasmus Darwin. It is clear that Coleridge was very familiar with Darwin's *The Botanic Garden*, from a nearby *Notebook* entry 3157, where Coleridge writes 'Bigness for Greatness—a Being so large, that accidentally passing by during the explosion of the Dr. Darwin's Chaos of the whole System of the Milky way, the Shot flew in his face, & pock-fretted him!'¹⁴ It is clear that he had read and was contemplating the Herschelian view of the construction of the universe, as this reference is to section 1.1 lines 97-114 of *The Botanic Garden* in which the generation of the stars and planets from nebulous matter are discussed. It begins by calling on 'primeval nymphs of fire' and then Divine Love passes the torch to chaos where:

... the kindling ether runs,
and the mass starts into a million suns;
Earths round each sun with quick explosions burst,
And second planets issue from the first;¹⁵

These lines not only demonstrate a Herschelian view of a specific instance of the beginning of the universe, but also are footnoted by Darwin explicitly attributing the idea to Herschel. In this note, Darwin explains this cosmogonical begetting of the temporal celestial universe as 'filling in a moment the immensity of space with light and motion' and says of the Herschelian view that 'a grander idea cannot be conceived by the mind of man.'¹⁶

From the development of scientific paradigms regarding the beginning of the universe, Coleridge moves on in 'Coeli Enarrant' to the metaphors of space and time:

And Time Drew out his subtle
Threads so quick. That the long
Summer's Eve was ~~long~~ one whole web,
A Space on which I lay commensurate.¹⁷

In this *Notebook* entry the excision of 'long,' is important. While the word may be crossed out simply because it repeats the 'long' of the previous line, this 'long' precedes a description of those threads of time; it might also indicate a path of description Coleridge consciously chose not to take. In short, if 'long' was meant to describe the makeup of time, it would have indicated that time had a linear straight format. By choosing instead to make time's structure weblike, the Biblical view of time having a linear dividable structure is abandoned, as is the medieval and early seventeenth-century view of vertical

¹⁴ Ibid.

¹⁵ Erasmus Darwin, *The Botanic Garden; A Poem in Two Parts. Part I Containing, The Economy of Vegetation. Part II The Loves of the Plants with Philosophical Notes*, (London: J. Johnson, St. Paul's Churchyard, 1791). Lines 105-108.

¹⁶ Ibid. p. 10.

¹⁷ Samuel Taylor Coleridge, 3107. *The Notebooks of Samuel Taylor Coleridge*. Volume 2 1804-1808. Ed. Kathleen Coburn. (New York: Bollingen, 1961). Lines 6-9.

linear time and space based on such a Biblical view. Along with the change in structure toward a more encompassing view of time, the ninth line clearly conflates space and time. The web of time *is* space. Time in this poem is not the human conception of something which passes or flows by linearly; time for Coleridge, in this excerpt, *comprises* space. It is a fourth dimension. The line brings together time, space, and motion in this image. These ideas are involved and conceptually difficult under any circumstance, but in the beginning decade of the nineteenth century they were *almost* unthinkable. Coleridge needed the conceptual linking of time and space in astronomy in order to philosophically go beyond the concept of Renaissance linear time.¹⁸

The difficulty of wrestling with these changing views of space and time as they grew out of the new astronomical theories is evident in Coleridge's false start at this poem. At line thirty-one Coleridge again finds problems with his poem and crosses out a large section from 31-38. The makeup of these lines is not only concerned with the relationship of time and space, but also is specifically astronomical:

Dark is the Sun, yet not a star now in the Sky peeps high,
<Eclipse-- >
No constellations alphabet the Sky blows
The Heaven ~~now~~ one large black Letter only shews
And ~~like~~ as a ~~willful~~ Child beneath ~~the~~ its Master's blows
The ~~groaning world~~ Utters at once its Task & its affright,
The groaning world now learns to read aright,
And cries out, O!¹⁹

Coleridge addresses the familiar poetic and theological trope of the world as God's text. However, the poem here is using specifically astronomical terms to discuss the un-readability of the text. This un-readability negates the Renaissance and Biblical world views of the resolvability of man's place in God's world through the text of nature. Coleridge is unsatisfied with this view

¹⁸ Going beyond the Biblical model for time in astronomy and the evolution of the universe would eventually lead to going beyond the Biblical model of time for the earth and the evolution of man. In the 1807 notebook entry from which 'Coeli Enarrant' is taken, the astronomical view precedes the biological evidence regarding the development of life on earth, as it did in the science of the nineteenth century. In Charles Darwin's Notebook A which spans from mid-1837 through 1839 we can see the influence of the astronomical theories to the biological developments, *Charles Darwin, Charles' Darwin's Notebooks, 1836-1844*. Trans. and Ed. by Paul H. Barrett et al. (Cambridge: Cambridge University Press, 1987.) During this time Darwin was immersed in his theory of evolution and natural selection. A key component of this development was the new geologic views of the earth. Entry 121 reads, "Assuming from Sir W. Herschel's views earth originally fluid." *Ibid.*, p. 125. The theory heavily influenced Lyell whom Darwin was reading at the time. In the later Notebook E (1838?), Darwin writes in entry 59 "Babbage 2d Edit, p.226—Herschel calls the appearance of new species. The mystery of mysteries. & has grand passage upon problem! Hurrah.—'intermediate causes'" [sic] p.413. The Herschel referenced here is John Herschel, whom Darwin met at the Cape of Good Hope in 1836, during his Beagle voyage. What is clear is that biological evolution and its contradiction of the Biblical timeline developed from the notions of stellar and universal evolution in William and John Herschel. A Biblical view of biological development clearly does not prevail in the poem of the 1807 notebook entry which points to a time 'before Life knew gradations.'

¹⁹ Samuel Taylor Coleridge, 3107. *The Notebooks of Samuel Taylor Coleridge*. Volume 2 1804-1808. Ed. Kathleen Coburn. (New York: Bollingen, 1961). Lines 31-38.

of an empty heaven. When the World finally deciphers Heaven it is with the realization and fear of a child being beaten. Again, the choices in editing give us some clues. The 'child' that is the world made metaphor is beaten by 'its Master.' Coleridge substitutes 'its' for 'the.' The switch from 'the' to 'its' is from a specific, more ultimate master to a more generalized master. The absence of a text would indicate the absence of God. This view would have been *intolerable* to Coleridge's project. Coleridge struck out this passage, probably because it did not fit with his philosophy. It was more a prescient view of the philosophy that was now possible through the work of men like William Herschel: the view that nature might not be an indication of the divine—nature itself might be enough. In Coleridge's poem humanity is not the pre-lapsarian, adamic master of nature assigning names, nor is it the Renaissance philosopher interpreting nature reading God's plans there; it is the child of nature, fearful in his lessons.

In answer to his difficulty with saying the Heavens were completely unreadable, indicating no supernatural force, Coleridge penned the lines which are now familiarly identified as 'Coeli Enarrant:'

The Stars that wont to start, as on a chase,
 And twinkling insult on Heaven's darkened Face,
~~And~~ Like a ~~bold~~ conven'd Conspiracy of Spies
 Wink at each other with confiding eyes,
 Turn from the portent, all is blank on high,
 No constellations alphabet the Sky—
 The heavens one large black Letter only shews,
 And as a Child beneath its master's Blows
 Shrills out at once its Task and its Affright,
 And with its Voice of Voices cries out, O!²⁰

Here, the stars are not gone; moreover, they are very conspicuously present in the first few lines, and they are moving not 'fixed.' Their movement is an 'insult,' tweaking the cheek of Heaven. The stars aren't gone in this new world; they are setting the 'fixed and eternal' Heaven a merry chase! The parallax of the stars had not yet been measured when this entry was made (the act necessary to confirm movement of the 'fixed' stars);²¹ but, Flamsteed's star charts did show that stars had changed position over time—even if the change could not have been measured. In this poem Coleridge clearly chooses to depict the heavens in terms of the beginning, movement, and evolution suggested by William Herschel's cosmogonical astronomy, as opposed to the Hebraic eternal, or static Newtonian cosmographical heavens. Yet, only a few lines later Coleridge shows no constellations in the Heavens.

²⁰ Samuel Taylor Coleridge, 3107. *The Notebooks of Samuel Taylor Coleridge: Volume 2 1804-1808*. Ed. Kathleen Coburn. (New York: Bollingen, 1961). Lines 39-49

²¹ F.W. Bessel, in 1838, measured stellar parallax. See Pierre Rousseau, *Man's Conquest of the Stars*. Trans. Michael Bullock. (New York: W.W. Norton and Company,) 1961, p. 251.

How can there be stars and not constellations? The stars 'Turn from the portent' in that they are no longer either an explanatory feature of mythology, or a method of divining the future. In short, these constellations figuratively disappear while the actual stars remain because the constellations no longer hold cultural or theological validity. In a universe in which time is space, evolution of galaxies is a given, the text of God as it exists—and it must for Coleridge—has to be something other than what it once was. The 'one large black letter' is the only sign available for demystification. The question is: what does this new text say? The answer comes in the last line, not with *what* the text of God says, but within whom it speaks. The world as child continues as the speaker. In the previous stricken lines though, the personified world speaks in a singular personal voice when it 'cries out.' In the lines as they stand in the poem which becomes 'Coeli Enarrant,' that world/child cries out with a 'Voice of Voices.' This phraseology of course replicates the familiar hyperbole of biblical phrasing—'king of kings' or 'lord of lords.' The divine voice is shifted to mankind via the world. This creates a kind of circumincession making humanity a fourth in the divine trinity.²² In this new world view Coleridge implies that humanity, as it grows in understanding may move from a natural text of explanatory mythology, like the Biblical Psalm, or occult divination or astronomical portent, like the age of Du Bartas, but it does not cease to be a text indicating God.

Avoiding a dualistic world that completely ceded the supernatural to the natural was very important to Coleridge. In 1811 he penned the poems that Paley refers to as the 'limbo constellation,' encompassing both 'Limbo' and 'Ne Plus Ultra'.²³ These poems display an interest in issues of time and space much like 'Coeli Enarrant.' However, In 'Limbo' time and space have evolved for Coleridge in many ways. There is 'Time in line 12, as in 'scytheless' Time, which is a non-reaping time, neither moving forward nor cutting down in a linear manner. Time is not that which doesn't exist; it is just clearly not an eternal, Biblical, linear time. This knew experience of time recurs in Coleridge's prose. As an example, consider the lines from "Comparative Etymology":

When † a Philosopher speaks of Ether, and of Light and Principle of Gravity, as constitutive Powers, in a scheme of Cosmogony, he has thrown himself back into an epoch prior to the existence of the bodies that now appear—for they are contemplated, as the ultimate Products of the cosmoplastic powers above-mentioned. But, when ~~we~~ he says, prior or antecedent, he does not mean to assert that the Producents and the Products were divided by any measurable interval

²² Nick Halmi, in another context, discusses Coleridge's definition of the symbol 'whether manifested...in scripture or in nature, as "consubstantial with its referent,"' in his article 'When is a Symbol not a Symbol? Coleridge on the Eucharist,' *The Coleridge Bulletin*, 20 (Winter 2002), p. 85.

²³ Both Paley in his book p. 41, and Frederick Burwick in his article 'Coleridge's "Limbo" and "Ne Plus Ultra": The Multeity of Intertextuality,' give accounts of the generation of these poems in the *Notebooks* along with the philosophical influence by writers such as John Donne, Jean Paul Richter, and Jacob Boehme.

of Time—the Subject is above Time and Space.²⁴

In order to incorporate the material into the ideal, Coleridge has constructed a view of the universe which places the Philosopher at the point before the material bodies were generated in stellar evolution, ergo outside time. What seems to be a really abstruse philosophical dissertation is actually a reasonably succinct rule of physics. Here Coleridge explicitly champions a cosmogonical conception of the universe. In so doing both the material realm of space and the temporal realm have a definite beginning.

Coleridge realized however that people, by their very nature (material), are not outside the dimension of time; rather they are implicated in it and therefore misperceive it, as he represents with the 'Old Man' in the poem who the narrator tells us is a manifestation of 'Human Time.'²⁵ Paley points out the various critical interpretations of what the old man in the poem might stand for and what his relationship to the moon might stand for.²⁶ I would like to add one more interpretation to this critical catalogue: The old man is human time, as the narrator clearly explains and his relationship to the moon stands simply for his relationship to the moon. Examine the lines:

But that is lovely—looks like Human Time,—
 An Old Man with a steady look sublime,
 That stops his earthly task to watch the skies;
 But he is blind—A Statue hath such eyes;—
 Yet having moonward turn'd his face by chance,
 Gazes the orb with moon-like countenance,
 With scant white hairs, with foretop bald and high,
 He gazes still,—his eyeless face all eye;—
 As 'twere an organ full of silent sight,
 His whole face seemeth to rejoice in light!
 Lip touching lip, all moveless, bust and limb—
 He seems to gaze at that which seems to gaze on him!²⁷

In the new cosmogonical world view of the poem, universal time is very different from the human perception of time.²⁸ Humans may be able to *theorize* about time as a dimension of space, but humans *experience* time as a linear flow. Thus, the human time in this poem is blind to the reality of spatial time. Humanity's ability to read the 'text' of God's universe is consequently severely limited. Burwick refers to this phenomenon as an 'encounter of faith with

²⁴ Samuel Taylor Coleridge, 'Comparative Etymology,' *Shorter Works and Fragments II: The Collected Works of Samuel Taylor Coleridge*, ed by Kathleen Coburn et al., (London: Princeton University Press, 1995), p. 1350.

²⁵ Samuel Taylor Coleridge, 'Limbo: A Fragment,' *The Collected Works of Samuel Taylor Coleridge: Poetical Works Poems 1 (Reading Text): Part 2*, Ed. J.C.C. Mays (London: Princeton University Press, 2001), p. 881-884, lines 9-10.

²⁶ Morton Paley, *Coleridge's Later Poetry*. (Oxford: Clarendon Press, 1996) pp.49-51.

²⁷ Lines 9-20.

²⁸ When I use the term 'universal time' I mean in the sense of 'time on the scale of the universe' rather than 'universal time' as an astronomical measurement originating at Greenwich observatory.

cosmic nihilism.²⁹ The 'cosmic nihilism' that has taken place is the destruction of the concept of the eternal and infinite temporality in relationship to the astronomical heavens.

The astronomical imagery in the poem in the form of the moon traces a development and fascination throughout human history. The old man turns his gaze to the moon first by accident. And it is there that he sees something that reminds him of himself. He has a 'moon-like' countenance to stress this similarity.³⁰ Just as the ancient Hebraic culture conceives of the sun (and it's manifestation of God) in human metaphors in Psalm 19, the man in the poem identifies similarity in the dissimilar, between celestial and human. What the old man perceives in the moon is the passing of time similar to human time. Of all the astronomical bodies available to the human eye, the moon in its nearness clearly does not just rise and set, but goes through transformation over a periodic time which seems linear and predictable.³¹ This is why cultures since prehistory have used it to reckon time. In this transference of qualities between the heavens and humanity's perception of their own time, humanity comes under the mistaken notion (present in the poem in the persistent use of the subjunctive) that the universe reflects *them*. The blindness of humanity in 'Limbo' is represented in the blank socket staring out into the heavens.³² The dark hole without light is reminiscent of the text of the skies as it is presented in 'the one large black letter' in 'Coeli Enarrant.' Both show the confrontation of humanity of a celestial world divested of eternity. And so the world had labored under the delusion of the Biblical timeline well into the late eighteenth century before the 'fixed' stars were established as both finite and evolving. The ideas that the world and indeed the universe had been created by God anthropocentrically and the heavens with their 'fixed' stars were eternal and unchanging, were the established cultural, social, literary, and even scientific paradigm for thousands of years. From ancient history the idea developed that in the celestial realm people would observe empirical evidence that would confirm that view. Reading the 'text' of the heavens in the nineteenth century seriously undermined this established worldview. If the heliocentric science of the Renaissance shattered the mystical Ptolemaic circles; the cosmogonical universe of Herschel shattered the Renaissance clockwork of unchanging, eternal, time. What William Herschel reveals in the celestial 'text' of Coleridge's world strikes at the core of anthropocentrism and calls for a reformulation of faith.

²⁹ Frederick Burwick "Coleridge's 'Limbo' and 'Ne Plus Ultra': The Multeity of Intertextuality," *Romanticism Past and Present*, 9.1 (1985), p.37.

³⁰ Line 14.

³¹ The irony in this view is that the moon's movements are so complicated and irregular that they were one of the least systematic among heavenly bodies; therefore, a conception of time based on Hebraic lunar months would be very much in error as an astronomical calendar.

³² Burwick traces this image to Jean Paul Richter's *Siebenkas*, a work also pulsing with astronomical imagery and concerned with ideas of eternity and infinity.