
Mechanical Precision and the Cosmic Sublime in Thomas De Quincey's Writing

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ABSTRACT

Proclaimed by Thomas Carlyle as the “Mechanical Age,” the nineteenth century saw a prevailing preoccupation with mechanical ingenuity and instrumental advancement in both the scientific and the literary worlds in Europe. This article examines a number of writings by Thomas De Quincey about human perception in the 1840s, exploring how they magnify the awkward and yet intimately entangled, symbiotic relationship between technology and poetry. In essays like “The Palimpsest of the Human Brain” (1845) and “System of the Heavens Revealed by Lord Rosse’s Telescopes” (1846), De Quincey embraces mechanical progress and its necessity in providing one with an unadulterated access to cosmic reality. However, in a later essay, “The Poetry of Pope” (1848), De Quincey would theorize the distinction between scientific and aesthetic writing, prioritizing poetic imagination over scientific facts. The article examines De Quincey’s epistemological dualism in relation to mechanical precision and explores how these essays disclose a more nuanced reading of scientific invention and its close alliance with the mediating and duplicating power of literary representation. It shows how De Quincey’s writing speaks to the Romantic longing for a convergence between empirical objectivity and spiritual transcendence by disquieting, or even dissolving, the mind-matter and human-machine dichotomies established in his cosmology. Furthermore, these essays utilize the notion of mechanical precision to make human perception accessible, manageable, and potentially reproducible, in order to claim a higher level of aesthetic potency.

KEYWORDS Thomas De Quincey, mechanical precision, the nebular hypothesis, epistemological dualism, telescope

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Introduction

In his 1829 essay “Signs of the Times,” Thomas Carlyle proclaims the world he lives in as the “Mechanical Age”: “It is the Age of Machinery, in every outward and inward sense of that word; the age which, with its whole undivided might, forwards, teaches and practises the great art of adapting means to ends. Nothing is now done directly, or by hand; all is by rule and calculated contrivance” (34). Mechanical ways of thinking and practicing art permeate society when the connection between science and poetry becomes increasingly enmeshed.¹ Carlyle’s dystopic vision of such a machinized world, manifested in this “great art of adapting means to ends,” speaks to the preoccupation of his time with mechanical measurement and precision.² As M. Norton Wise states, precision “connotes trustworthiness and elegance in the actions or products of humans and machines. Precision is everything that ambiguity, uncertainty, messiness, and unreliability are not. It is responsible, nonemotional, objective, and scientific. It shows quality” (1). Literary works would emulate this scientific confidence in the “elegance” and “trustworthiness” of technical exactitude. The anonymous editor of the English translation of Constantin-François Volney’s popular book during the nineteenth century, *The Ruins*, states that “all should be expressed with truth and precision. . . . It is time to demonstrate that morality is a physical and geometrical science, subjected to the rules and calculations of the other mathematical sciences . . .” (1-2). Human nature becomes one of the domains and disciplines that require the systematic order of scientific calculation in order to convey “truth and precision.”

Indeed, the prevailing public sentiment in the mid-nineteenth century about the credibility of scientific precision also implies the elimination of “ambiguity, uncertainty, messiness, and unreliability” in human thought. Tita Chico remarks on “the reciprocity of scientific and literary epistemologies” in the British En-

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¹ Critics have noted the close link between mechanization, periodical writing, and the increasing commercialization of the literary markets in the early nineteenth century. See, for example, Nemoniau; Jordan and Patten; Parker; Cronin; Hall; and Dawson.

² M. Norton Wise notes that “the movement toward precision in all things” in the late eighteenth century, identified by American philosopher of science Thomas Kuhn as the “second scientific revolution,” began to draw attention and “developed over a broad spectrum, extending beyond astronomical and optical instruments” (2). Simon Schaffer similarly observes that “exact measurement” in the mid-nineteenth century “was advertised as a vital accompaniment of commercial, military, and thus imperial triumph” (135).

lightenment, showing how eighteenth-century science is “not only forged but also improved by the literary imagination” (14). Toward the mid-nineteenth century, poetry is located “at a moment of crisis where its transcendence of the machine appears impossible” (Dawson 247). As Carlyle puts it explicitly, mechanization is transformed from a “means to ends” into an aim in its own right. In what Richard Holmes calls “the age of wonder,” scientific devices allow people “to intervene actively” in the process of revealing the “secrets” of “an infinite, mysterious Nature” (31). This reliance upon the “intervention” of scientific instrument speaks to the significance of mechanical precision in its promise to turn what seems unexplainable and hidden in Nature into something quantifiable by providing standardized ways to gauge natural laws and philosophies. Bernard Lightman thus observes that toward the second half of the nineteenth century, “ideas and theories had to be determined through scientific method” for writers to gain “cultural authority and intellectual prestige” (5). Reading vivid and supposedly faithful descriptions of geological discoveries, as Ralph O’Connor puts it, “was thought to be more effective . . . than the act of looking at the object described” (4). Precise, objective, and scientific descriptions are part and parcel of this instrumental improvement in its claim to truth in an increasingly modernized world.

This article examines writings of Thomas De Quincey in the 1840s about aesthetic perception, exploring his metaphors of mechanization and the awkward and yet intimately entangled, symbiotic relationship between science and poetry. The article first looks at De Quincey’s epistemological reshuffling—his unsettling of the poetry/science hierarchy in his literary criticism to reveal their interconnectedness. The second part of the article examines how, by technologizing the human brain, De Quincey accentuates the materialistic condition of human thought, and the instrumentality of human perception. The third part explores De Quincey’s telescopic imagery, attending to how De Quincey employs the organic-mechanical epistemological dualism to account for his cosmology. The last part looks at his language of analogy and imagery of reproduction in his representation of nebulae, showcasing how he utilizes the notion of precision in order to advance and heighten one’s aesthetic capacity.

Well-known for his *Confessions of an English Opium-Eater* (1821), De Quincey established himself as a prolific magazine writer in the mid-nineteenth century with his vivid descriptions and “impassioned prose.” Elizabeth Barrett Browning comments in an 1843 letter on De Quincey’s writing as follows: “Did you read ‘Blackwood’? and in that case have you had deep delight in an exquisite paper by the Opium-eater, which my heart trembled through from end to end?”

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What a poet that man is! how he vivifies words, or deepens them, and gives them profound significance . . .” (Kelley and Lewis 10: 125). His essays about the elasticity and multiplicity of human perception manifest the delicate dance between scientific precision and literary imagination. Essays like “The Palimpsest” (part of “Suspiria de Profundis: Being a Sequel to the Confessions of an English Opium-Eater,” first published in *Blackwood’s Magazine* in 1845) and “System of the Heavens Revealed by Lord Rosse’s Telescopes” (first published in *Tait’s Edinburgh Magazine* in 1846), examine with vigor the significance of technological improvement and optical revelation in the mechanical age. In these writings, De Quincey embraces scientific progress and its potentiality in providing an unadulterated, direct access to cosmic reality. However, his interest in science goes in tandem with implicit anxiety about the limitation of technology, as well as the inability of viewers to interpret or decipher new sights “correctly.” In a later essay, “The Works of Alexander Pope, Esquire,” published first in the *North British Review* (1848), De Quincey would theorize the distinction between scientific and aesthetic writing, prioritizing poetic imagination over mechanical fact, while utilizing technical invention to reinforce the mediating, intervening, and duplicating power of aesthetic interpretation.

Romantic writers demonstrate various degrees of unease toward this marriage between science and poetry.³ In “Steamboats, Viaducts, and Railways” (1833), William Wordsworth comments on how “Motions and Means” like machines and steam engines are “at war / With old poetic feeling,” and yet they also provide “that prophetic sense / Of future change, that point of vision, whence / May be discovered what in soul ye are” (355). The poem concludes optimistically that “Nature doth embrace / Her lawful offspring in Man’s art . . . and smiles on you with cheer sublime” (355). While the “loveliness” of Nature is “mar[red]” by machines with their “harsh features,” they are also relegated to a more organic (and presumably human-like) role as Nature’s “awful offspring” and “Man’s art,” thus deserving the smiling approval of Nature (355). In “Kubla Khan,” a dream vision about the imagined pleasure-dome in Xanadu in China, Samuel Taylor Coleridge juxtaposes the carefully calculated, well-maintained five miles of “fertile ground,” with “that deep romantic chasm” and underground caverns “measureless to man” in his dream, in which “a miracle of rare device, / A sunny pleasure-dome with caves of ice!” emerges with astonishing aesthetic effect (346). Describing this dream vision of the pleasure-dome as a “rare device,”

³ For more on recent scholarship about the relationship between science and Romanticism, see, for example, McLane; Richardson; Gigante; Fulford, Lee, and Kitson; Goldstein; and Sha.

Coleridge's poem suggests how this miraculous vision might be predicated upon a meticulously designed and scientifically arranged man-made structure.

De Quincey, like his contemporary writers, explores such a romantic vision, enhanced by scientific exactitude, through his analogous language of machinery. John Tresch calls technological devices such as "steam engines, batteries, sensitive electrical and atmospheric instruments, improved presses, and photography" in the nineteenth century "romantic machines" (xi), arguing that in the 1830s and 1840s Europe, "[n]ew instruments and machines were theorized as extensions of human senses and intentionality, as fluid mediators between mind and world, and as the ligaments of society; they appeared as transformative, even sublime devices" (5). While De Quincey does not specifically address mechanical devices as organic living beings, he courts poetic visions with these "romantic machines" to mediate between the organic and the inorganic, between "Nature" and "Man's art." In particular, his dualistic epistemology reflects the cognitive transition that shifts from the Newtonian mechanical universe in the eighteenth century to a nineteenth-century Herschelian universe of mutation, evolution, and instability.⁴ De Quincey's writing testifies to such a multi-layered and multi-temporal reconfiguration of aesthetic visions in an age of rapid geohistorical discovery and astronomical improvement. However, it also foregrounds the notion of mechanical precision in his aesthetic attempt to make human perception accessible, manageable, and potentially reproducible, in order to achieve a higher level of poetic potency.

De Quincey's Epistemological Dualism and Its Reshuffling

While the enthusiasm of his time about scientific exactitude is often accompanied by the Romantic ambivalence or skepticism toward the machine's (in)ability to have access to the mysterious, the unknown, and the sublime in the universe, De Quincey's writing shows an alternative approach to pursuing poetic "exactitude" through his unique combination of the organic and the reproducible. In his writing, De Quincey reworks Carlyle's idea of "the Mechanical Age" and reverses the Wordsworthian "war" between "Motions and Means" and "old poetic feeling" by speaking to the Romantic longing for the convergence be-

⁴ Ian Duncan notes that "[t]he massively expanded time-scale of earth history proposed in the Romantic-era 'geohistorical revolution' was well established by the early 1850s, although its extent remained controversial" (129). For more details on geohistorical development in the eighteenth and nineteenth centuries, see, for example, Rudwick; Lightman. For the connection between optical instruments and cosmic visions in the Romantic era, see, for example, Armstrong; Henchman; Janowitz; Goulding; and Brothers.

tween empirical objectivity and spiritual transcendence.

De Quincey is a disciple of Immanuel Kant's theory about the transcendental power of pure reason. His writing, nevertheless, also shows his invested interest in the Baconian validity of empirical evidence, particularly the assistance of technological progression to support human vision.⁵ Francis Bacon emphasizes the significance of the scientific method in *Novum Organum* (1620), in particular in its ability to "determin[e] the degrees of certainty" and avoid the mind being misled "by the daily habit and intercourse of life" whereby it becomes "prepossessed with corrupted doctrines, and filled with the vainest idols" (344). Bacon compares inductive reasoning to "mechanical aid" that directs the mind to attain its end, "not leaving it to itself" in order to reach a higher level of "certainty" and more correct understanding of the world (344). Mechanical invention (as well as intervention) is analogous to, and potentially a model for, the function of the human mind. As Clifford Siskin notes, the human-versus-machine binarism in Kant and Bacon diverges. For Kant, one's reason elevates men above machines, but for Bacon, "machines are not what we don't want to be; they are the means for men to do what they should be doing" (4). While De Quincey explicitly acknowledges the Kantian influence, his stance on scientific revelation also closely aligns with the Baconian practice of the "labour of the mind" that resembles "mechanical aid," emulating scientific calculation to obtain higher degrees of precision.

De Quincey's literary criticism sees the writer entertaining the Baconian empiricism by associating writing with the operation of machines. In his 1840 essay "Style," published in *Blackwood's Magazine*, De Quincey comments that "Style may be viewed as an organic thing and as a mechanic thing" (*Selected Essays on Rhetoric* 163). According to De Quincey, "[t]he science of style as an organ of thought, of style in relation to the ideas and feelings, might be called the *organology* of style"; "[t]he science of style considered as a machine, in which words act upon words, and through a particular grammar," alternatively, "might be called the *mechanology* of style" (*Selected Essays on Rhetoric* 164). While establishing this distinction, De Quincey emphasizes the conceptual intimacy between the two by using the human body as an example, noting that it is both "an elaborate system of organs" and "exercised as a machine," which is "subject to the laws of motion and equilibrium." A similar binary structure is utilized in De Quincey's distinction between literature of power and literature of knowledge, where technical precision plays an intriguing role. In "The Works of Alexander Pope, Esquire,"

⁵ While Tatiana Gurevich, among many others, notes that De Quincey has been a "disseminator of Kantian traditions," his relationship with Kant remains complex. On De Quincey's later revision of Kantian theories, see, for example, Murray.

published in the *North British Review* in 1848, De Quincey categorizes literature into two types, “the Literature of Knowledge” and “the Literature of Power”: “The function of the first is—to teach; the function of the second is—to move” (Morrison 16: 336). De Quincey uses metaphors of “a rudder” and “an oar or a sail” to account for their difference: “The first speaks to the mere discursive understanding; the second speaks ultimately, it may happen, to the higher understanding or reason, but always through affections of pleasure and sympathy” (Morrison 16: 336). While the first type is simply “mechanical” and thus more predictable, this rudder vs. oar/sail analogy also draws one’s attention to the materiality of technology and the intimate alliance between these two types of writing. If oars and sails, nautical images of navigation, symbolize the power of literary writing to propel the vehicle of human thought and command its direction through the movement of the human arms (and hands), its rudder also plays a role in steering the machine and thus calls the suggested dichotomous, hierarchal, as well as functional structure into question. While oars and sails are like the extension of one’s pen, and exemplify the mastery of ones’ physical (or in this case, mental) skill and strength “to move” one’s reader, the holder and mover of this metaphoric vehicle of human thought, paradoxically, relies upon its rudder (or in this case knowledge) for its power to carry the weight and drive the vehicle forward (or, according to De Quincey, to “teach”).

While De Quincey in “The Works of Alexander Pope, Esquire” elevates the status of literary writing over technical writing, his engagement with mechanical precision looms large. De Quincey alludes to the Claude glass, a mirror device named after the seventeenth-century French painter Claude Lorraine, famous for his landscape paintings, to warn his readers against unthinking acceptance of dogmatic doctrine. With tinted mirrors in slightly convex shapes, the gadget, popular in the eighteenth century among tourists and landscape paintings, is used to reflect landscapes in ways that allegedly increase their aesthetic properties. For De Quincey, however, such an optical device is associated with Bacon’s notion of “idols of the mind” that distorts one’s vision. As De Quincey explains, “A window composed of Claude Lorraine glasses spreads over the landscape outside a disturbing effect, which not the most practiced eye can evade. The *ei-dola theatri* [“idols of the theater,” one of Francis Bacon’s Idols of the Mind] affect us all” (Morrison 16: 334). De Quincey alludes to the Baconian criticism of corrupted and biased mental habits, by making a comparison between that and mechanical devices like the Claude glasses, which are not enhancing one’s visual power but are interrupting, and perhaps obscuring, one’s supposedly immediate perception of nature’s laws. De Quincey resorts to the Baconian empir-

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ical observation and mechanical support again by reworking this mind-machine alliance and by using the Claude glasses to present the “disturbing” effect of the machine-human hierarchal reversal. It makes the mind an equal culprit of misleading and distorting one’s vision under the prismatic effect of conventional thinking, and thus further disquiets the epistemological dualism.

De Quincey restores this poetry vs. science order in the latter parts of the essay by converging the organic and the mechanical, describing truth and knowledge as objects and matter that “gain a vernal life of restoration, and germinate into vital activities” through “the creative forces of man put forth in literature” (Morrison 16: 337-38). As De Quincey argues, ideals “would often remain amongst us as mere arid notional forms” if they were not rescued by imagination “from torpor” and called “into action” (Morrison 16: 338). In particular, literature of power cannot be replicated, “transplanted,” or improved surgically, manually or artificially: “A good steam-engine is properly superseded by a better. But one lovely pastoral valley is not superseded by another, nor a statue of Praxiteles by a statue of Michelangelo” (Morrison 16: 338).⁶ Like a piece of art or a lovely landscape, the “living power” of literary writing transcends the mechanical process of uniformity (Morrison 16: 338). Here De Quincey aligns art works with Nature rather than machines. As De Quincey elaborates on this perplexing human-nature vs. machine dichotomy, “[h]uman works of immortal beauty” are similar to “works of nature” because of their exception from reproducibility or manageability: “they never absolutely repeat each other, never approach so near as not to differ; . . . they differ by undecipherable and incommunicable differences, that cannot be caught by mimicries, that cannot be reflected in the mirror of copies, that cannot become ponderable in the scales of vulgar comparison” (Morrison 16: 338). While rejecting the “vulgar comparison” of artworks “under the same standard” (Morrison 16: 338), De Quincey’s remark also speaks obliquely to the contemporary interest in devices like “the mirror of copies” and “the scale” of measurement, indispensable tools of replication, classification, and evaluation. The “undecipherable and incommunicable” quality of artistic expression (as well as its unrepeatability, non-mimicry, and individuality) serves for De Quincey unmistakably as a superior form of creation, but it is intermingled peculiarly with the analogous language and imagery of mechanism De Quincey uses to convey conceptual unambiguity, reliability, and certainty beyond the “Idols of the Mind.”

⁶ According to De Quincey in the same essay, “To be capable of transplantation is the immediate criterion of a truth that ranges on a lower scale” and thus belongs to the category of information, fact or knowledge (Morrison 16: 336).

The Palimpsest and the Technologized Human Brain

In Wordsworth's "Steamboats, Viaducts, and Railways," what underlines the nature-human vs. machine tension appears to be a Romantic belief in, or longing for, the continuation between the material and the immaterial, and between the organic and the mechanical that Tresch's notion of "romantic machines" also evokes. While De Quincey's distinction between the "literature of power" and "literature of knowledge" establishes an epistemological hierarchy of poetic interpretation over factual, lifeless knowledge, there is also this persistent unease about whether technology liberates and advances the human mind, or constrains and undermines human perception, and whether the promised emancipation of the human imagination is coupled with, rather than separate from, mechanical calculation. De Quincey's writing becomes symptomatic of the scientific craving for measurability and manageability of the natural world that is supposedly enhancing the progression of human thought at the brink of modernity. De Quincey's writings about technical reproduction and human perception in "The Palimpsest" and "System of the Heavens Revealed by Lord Rosse's Telescopes," published roughly around the same time, more explicitly engage with the science vs. poetry / machine vs. human complexity.

In "The Palimpsest," De Quincey describes human thoughts and ideas as "mysterious hand-writings of grief or joy which have inscribed themselves successively upon the palimpsest of" the human mind (Burwick 15: 176). Human brains are structured as palimpsest-like "diplomata of human archives or libraries" (Burwick 15: 175), in which "[e]verlasting layers of ideas, images, feelings, have fallen upon your brain softly as light" (Burwick 15: 175). The development of the human thought is materialized and compiled into "archives" and textualized into "hand-writings" upon the human brain. Memories are further associated with the stratigraphic changes of the earth, in which "like the annual leaves of aboriginal forests, or the undissolving snows on the Himalaya, or light falling upon light, the endless strata have covered up each other in forgetfulness" (Burwick 15: 176). The evolution of the human thought resembles that of the geological accumulation. For De Quincey, science wields a supernatural power to excavate such a geo-cerebral process: "Chemistry, a witch as potent as the Erictho of Lucanto . . . , has extorted by her torments, from the dust and ashes of forgotten centuries, the secrets of a life extinct for the general eye, but still glowing in the embers" (Burwick 15: 174). The fossilization of the human brain can be made reversible with the aid of narcotic substances. De Quincey applies mythological significance to the power of science further by relating chemistry with

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the rebirth of the Phoenix, for it has the power to restore the palimpsest of the brain in its original form: “We have backed upon each phoenix in the long *regressus*, and forced him to expose his ancestral phoenix, sleeping in the ashes below his own ashes” (Burwick 15: 174). The layers of impressions in one’s brain are both mechanized and regulated through the assistance (or intrusion) of modern science.

For De Quincey, as well as many of his contemporaries, the life/matter and human/machine distinctions remain nebulously undefined (and perhaps undefinable). The brain is not only conceptualized (and materialized) into geological forms, but also technologized by De Quincey into the “palimpsest” of the brain and mythologized into a rebirth of the phoenix.⁷ His chemist is as much a sorcerer as a scientist that conducts a forensic investigation into the ashes of the brain by conjuring up one’s ghostly past in words. De Quincey pushes the organic/inorganic, myth/biology boundaries further by drawing an analogy between the evolvement of technology and the function of the human thought. He uses the technical invention of printing as an example (along with “analogous artifices amongst various mechanic artizans”): “The secret of printing must have been discovered many thousands of times before it was used, or *could* be used. . . . [A]ll that is essential in printing must have been known to every nation that struck coins and medals” (Burwick 15: 171-72). The “art for multiplying impressions” thus has more to do with “the want of a cheap material for *receiving* such impressions” than the discovery of new ideas (Burwick 15: 171). The palimpsest serves as a mechanical tool (as well as a conceptual one) to exemplify the reversal of thought vs. medium and mind vs. matter hierarchy through time: “[T]his relation between the vehicle and its freight has gradually been undermined. The vellum . . . has risen at length to be the jewel itself; and the burden of thought . . . has now become the chief obstacle to its value . . . unless it can be dissociated from the connexion” (Burwick 15: 172). In terms of economics, human thought becomes redundant, or even a hindrance to the transformation of value system. As De Quincey remarks, “the vellum has come at last to absorb the whole value” (Burwick 15: 172). The materiality of technology that outlives one’s intellectual lives, in this way, upends the previous order between the “vehicle” and its “freight” in this mind/matter, human/machine tug of war. The human mind can be either materialized and stratified, or ossified and devalued, and thus lose its spiritual halo.

⁷ For more on the history of palimpsests and De Quincey’s literary criticism, see Dillon. On De Quincey’s palimpsest in relation to the colonial imagination of his time, see Weng.

De Quincey believes in the power of technology to resurrect human thought and lift its “pall” from the brain so that “the whole depths of the theatre” of the human mind “are exposed” (Burwick 15: 176)—in this case, by opium. For De Quincey, the “palimpsest” of the human brain is instrumentalized before the age of industrialization. While De Quincey’s focus here is on visualizing the invisible traces of the mind, that is, the preservation and retrieval of human thought, his discussion also highlights the material condition of the tools of reproduction—the life of manuscripts and how their materiality might shape and be shaped by the vicissitude of cultural values through time. As De Quincey observes the fluctuation of human ideas, the value of a book might be “by alternate successions, sinking into night or blazing into day, like the Sicilian river Arethusa, and the English river Mole . . .” (Burwick 15: 173). Technical instruments thus take on an “undulating,” evolving, and mutating life of their own (Burwick 15: 173). Unlike Carlyle’s grievance about the Mechanical age, De Quincey perceives scientific development as a fundamentally organic and integral enterprise of the human perception. The epistemological structure he builds up is thus reworked or even reversed in his own writing to create the cognitively uncanny effect of aesthetic sublime (as well as poetic precision).⁸

The Nebula Hypothesis, the Phoenix of Nature, and Lord Rosse’s Telescopic (Ir)resolution

De Quincey’s cognitive imagination is intimately linked with his cosmology, since discoveries in the earth and astral sciences also indicates a retrieval or re-discovery of what is already existent or practiced in the mental (as well as textual) world. Technical devices reveal the inner thought that is previously unavailable to human consciousness. In “System of the Heavens Revealed by Lord Rosse’s Telescopes,” De Quincey illustrates how this human urge to measure the space outside, consciously or unconsciously, corresponds with one’s search for the tabula rosa within. William Persons, the third Earl of Rosse in Ireland, constructed enormous telescopes in the 1840s, which supposedly resolved the Orion Nebula and disclosed truth about the origin of the universe. In his essay, De Quincey argues rhetorically that Lord Rosse “has revealed more by far than he found” (Burwick 15: 400), claiming his own cultural authority amid the contemporary scientific controversy over the Nebular hypothesis.

⁸ Critics have noted De Quincey’s “characteristically paradoxical tendency both to delineate dichotomies and to dissolve them (Milligan, “Brunoniamsm” 45). For more on De Quincey’s paradoxical tendencies, see, for example, Clej; Milligan, *Pleasures and Pain*; and Stanyon.

The Nebular hypothesis was developed by Pierre-Simon Laplace, William Herschel, his son John Herschel, and the like in the late eighteenth century, which attributed the birth of the solar system to the contraction and condensation of the central gaseous nebula. William Herschel's theoretical view on nebulae, in particular, plays a significant role in the Romantic imagination.⁹ His scientific articles, published in the *Philosophical Transactions of the Royal Society of London* in the late eighteenth century and the early nineteenth century, began a "seismic shift" away from the mechanical, Newtonian "clockwork universe" of the eighteenth century to a fluid Herschelian "biological cosmos" evolved from clusters of stars (Hoskin 3; see also Armstrong 270; Henschman 56). John C. Greene calls the nebular hypothesis the modern-day equivalent of the "big bang" theory on cosmic evolution (312), a theory often connected to evolutionary theories, an extension from "the domain of natural law to the organic world" (Numbers 105).¹⁰ In one of his scientific papers, "On the Construction of the Heavens" (1785), William Herschel speculates about the clusters of stars as follows: "[W]e ought perhaps to look upon such clusters, and the destruction of now and then a star, in some thousands of ages, as perhaps the very means by which the whole is preserved and renewed. These clusters may be the Laboratories of the universe, if I may so express myself, wherein the most salutary remedies for the decay of the whole are prepared" (qtd. in Hoskin 116). This theoretical speculation about nebulae as "the Laboratories of the universe" evokes a cosmic view that is moving and unsteady, a chaotic universe that instrumental improvement like Lord Rosse's telescopic resolution is supposed to resolve.¹¹ John Pringle Nichol, a friend of De Quincey's and upholder of the hypothesis, would propagate such a science of progress that argues for the teleological progression of social reform and evolution in his *Views of the Architecture of the Heavens* (1838) and gain popularity across the Atlantic world.¹²

⁹ See, for example, Gaull; Janowitz; Goulding; Hewitt; Armstrong; Hasted; Henschman; Brothers; and Garofalo.

¹⁰ For more details on the connection between the hypothesis and evolutionary theories, see Wylie; and Numbers.

¹¹ Jonathan Smith points out that the resolution of the Orion Nebula, while "exemplifying human ingenuity and human control," also revealed a larger and more chaotic world, "in which the earth and its inhabitants seemed increasingly insignificant" (205). Henschman notes how, in the essay, "De Quincey forces his reader to experience the kind of disorientation that nineteenth-century astronomy imposes on him" (83). Devin M. Garofalo further argues that "nebulae . . . unsettle the contiguity of reference such that they turn representation haywire. Brought to the brink of failure, analogy inadvertently evinces a world replete with pluriversal configurations of human, nonhuman, and world" (586). See also Numbers; Smith, "The Abysses of the Heavenly Wilderness"; and Murray.

¹² According to Roland L. Numbers and Robin Peel, the theory "began to command respect in Britain in the 1830s largely because of the writing of John Pringle Nichol" (Numbers 20-23; Peel 285). Being praised as

The “nebulosity” of the nebular hypothesis also draws De Quincey’s attention. While resonating partially with William Herschel’s perception of an evolutionary universe, and with Nichol’s teleological view of cosmic progress, De Quincey uses his dualistic epistemology to address (or potentially remedy) the revelation (as well as limitation) of technical exactitude.¹³ De Quincey begins the essay “System of the Heavens” by presenting the difficulty of determining the age of the earth in the planetary system and yet emphasizing its organic-mechanical geo-historical development. He borrows Kant’s idea of “Phoenix of Nature” from the latter’s *Universal Natural History and Theory of the Heavens* (1775) and pictures an allegorically deterministic, somehow mythical and mechanistic “Phoenix” of the earth, which destroys and resurrects itself periodically: “she is a Phoenix that is known to have secret processes for rebuilding herself out of her own ashes. Little doubt there is but she has seen many a birthday, many a funeral night, and many a morning of resurrection” (Burwick 15: 397). He reimagines the Kantian cosmology as an organic, evolving geo-historical system which is, paradoxically, also technologized into a motion-picture-like, revolving panorama that dazzlingly connects the oceanic with the terrestrial, the Antarctic wilderness with populous empires of human civilization: “Where now the mightiest of oceans rolls in pacific beauty, once were anchored continents and boundless forests. Where the south pole now shuts her frozen gates inhospitably against the intrusions of flesh, once were probably accumulated the ribs of empires . . .” (Burwick 15: 397). De Quincey opticalizes the geo-historical transitions into magic lantern shows, in which the temporary span of human lifetime is telescoped and juxtaposed with the immense stretch of geological time, where “man’s imperial forehead, woman’s roseate lips, gleamed upon ten thousand hills” (Burwick 15: 397).¹⁴ De Quincey further parallels the sublime waterways in

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“the prose laureate of the stars,” Nichol charmed the public across the Atlantic Ocean in the 1840s with his “gorgeous style, gigantic diagrams and enthusiasm” (Schaffer, “The Nebular” 150). Armstrong notes that “Nichol had been associated with J. S. Mill and with the middle-class radicalism of the *Westminster Review* in the 1830s, which had entertained the nebular theory and supported popular education, thus threatening the unshakable spread of subversion” (311).

¹³ Critics such as Joseph Hillis Miller notes that in these “astronomical abysses” of De Quincey, “God is present only as ungraspable absence” (72). Robert Lance Snyder also sees De Quincey’s attitude towards “the concept of astronomical infinitude” as equivocal (343-45). V. A. De Luca similarly comments that this essay captures De Quincey’s “deep ambiguities” about “the relation of God and death” (96).

¹⁴ According to Jonathan Sachs, “De Quincey shows the consequent difficulty of grasping time and temporal experience lived in the crux between short and long stretches at a historical moment when the expansion of scientific understanding enhanced the sense of multiple timeframes and the temporal collision between accelerated daily life and the slow time of the earth sciences” (259). For more details on De Quincey and the geological deep time, see Sachs. Although Sachs’s comment is mainly placed in the context of his discussion of De Quincey’s interest in speed, it is also relevant to my reading of De Quincey’s geo-historical sense of deep time here.

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India with the pastoral landscape in Britain, reconceiving the “sweet pastoral rivulets” in the “south-eastern quarter” of the “little England” to be as “regal” as the Ganges in the past (Burwick 15: 398), highlighting the multi-layered and multi-temporal interconnectedness between oceans and continents, rivulets and torrents, in a chronologically (as well as proportionally) distorted order.

As De Quincey elaborates on *palingenesis*, a philosophical notion of rebirth and recreation, “the Fauna of Earth” and “the Flora of Earth” do not “become superannuated, but blossom in everlasting youth” (Burwick 15: 398). On the one hand, this topographic fluctuation is repeating mechanically divine rules imposed by God: “Generations wax old as does a garment: but eternally God says:—‘Come again, ye children of men.’ . . . *Tellus* herself, the planet, as a whole, is for ever working by golden balances of change and compensation, of ruin and restoration” (Burwick 15: 398). The life of the earth is both like “a garment” that would wear out with time and a machine that is “working” according to God’s golden decree.¹⁵ On the other hand, the earth is also growing and decaying like fruits and flowers, with its ruinous and decomposed self organically regenerated. De Quincey posits the “Phoenix of Nature” concept of the earth by placing it in an ambiguous position between the biological cycle of life and death and the mythical prototype of the earth’s perpetual regeneration and rebirth:

She recasts her glorious habitations in decomposing them; she lies down for death, which perhaps a thousand times she has suffered; she rises for a new birth, which perhaps for the thousandth time has glorified her disc. Hers is the wedding garment, hers is the shroud, that eternally is being woven in the loom of *palingenesis*. And God imposes upon her the awful necessity of working for ever at her own grave, yet of listening for ever to his far-off trumpet of resurrection. (Burwick 15: 398)

The fact that the universe is in this continuous process of organic evolving and becoming (“she rises for a new birth”), on the one hand, and of mechanical decomposing and resurrecting (“working for ever at her own grave”), on the other hand, makes a definite and accurate resolution impossible. Rather than confirm geo-historical certainty, De Quincey applies his organic-mechanical dualism here, and shifts the focus from the limitation of scientific precision to an alternative form of poetic precision—the possibility of aesthetically comprehending

¹⁵ According to Alex Murray, De Quincey adopts the Kantian notion of the Phoenix of Nature in the essay as “a different, yet still mechanistic vision of the universe” against a chaotic cosmological view, the model of which, however, “he would earlier support, but later attempt to refute” (248).

and rationally predicting this dissolving and reemerging view of the planet.

De Quincey's tectonic and aquatic imagination manifests the conceptual double—the organic-mechanical design in the epistemological dualism that also structures his aesthetic theory. It further showcases the close link between the geo-historical imagination and the cosmic speculation of his time. After De Quincey addresses “some Quibus Flestrin of Asiatic proportions” in stratigraphic changes (Burwick 15: 398), he returns to the astronomical view disclosed by Lord Rosse's telescopes, the nebulousness of which turns out not so much resolved as magnified. As De Quincey explicates, “The theatre to which he has introduced us, is immeasurably beyond the old one which he found. . . . It is to undertake the measurement of the tropics with the pocket-tape of an upholsterer” (Burwick 15: 400). The tropical wilderness is contrasted with mechanical calculation for furniture arrangement to highlight the materiality of scientific technicality, despite its inadequacy. De Quincey draws a further analogy between Columbus's encounter with America and Lord Rosse's nebular revelation: “Columbus, when he introduced the Old World to the New, after all that can be said in his praise, did in fact only introduce the majority to the minority; but Lord Rosse has introduced the minority to the majority. There are two worlds, one called Ante-Rosse, and the other Post-Rosse; and, if it should come to voting, the latter would shockingly outvote the other” (Burwick 15: 400). While endorsing Lord Rosse's telescopes as a project grander than the imperial one conducted by Columbus, De Quincey also articulates how the astral sublimity is “outnumbering” (and outweighing) the terrestrial one on its scale of immeasurability in numerical terms. As Miranda Stanyon comments on De Quincey's “well-known anxieties over gluts of books and knowledge,” for De Quincey the “lay-mathematician,” precision “reveals understanding's overpowering through infinite pursuit” rather than “mastery and order” (45). Mathematical precision only enhances the “irresolution” of this astronomical revelation.

Lord Rosse's alleged “resolution” of the Orion Nebula provides De Quincey with another test ground for his dualistic conceptualization of the universe. Dometa Wiegand Brothers notes that “in examining the distance/time/space relationship, Herschel did for the age of the universe in astronomical terms what Lyell was to do for the geologic age of the earth” (53). Such an astronomical-geological association is discernible in De Quincey's essay, in which the cognitive transition from the Newtonian regularity to the Herschelian organic evolution of his time is encapsulated and converged into his Kantian mythical-planetary imagery. Furthermore, his geo-astral vision is telescopic and spectacular in its visual presentation, an aesthetic strategy that, according to Isobel

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Armstrong, has to do with the “dissolving views” prevalent in “the lantern projections of the phantasmagoria” and the telescopic images presented by nineteenth-century astronomers about the nebulae (258).¹⁶ If, as Brothers, among others, has observed, eighteenth- and nineteenth-century astronomy is “one of the exact, mathematical, observation-based sciences at the same time that it is perceived as being mystical or even divine” (50), this perceived duality of astronomy also serves as a productive, albeit slippery, “laboratory” for his epistemological experimentation.¹⁷ What seems to be revealed for De Quincey is not just the “immeasurable” in the cosmic sublime, but the epistemological possibility to negotiate between the mathematical and the empirical embodied by the Ante-Rosse world, on the one hand, and the unknown potentiality presented by the Post-Rosse world, on the other hand, both of which, for De Quincey, remains a “theater” and a view conditioned by mechanical devices (rather than an unmediated truth), detached from (and, as Duffy Cian argues, to be consumed by) its viewers.¹⁸

The Optical (Re)production of the Astronomical Sublime

Anna Henschman points out De Quincey’s “delight” in “the idea that the structure of the universe will always elude astronomers”: “For De Quincey astronomy is most valuable in stimulating the imagination rather than in increasing stable knowledge” (68). Perhaps more can be said about the perceived “delight” of De Quincey in this epistemological disorientation, since the (ir)resolution of nebulae, while suggesting a scientific impasse, also indicates the possibility of an authenticated (pre)view only through mediated and framed “theatrical” lens, aesthetic interpretation, or technical apparatus. Indeed, what De Quincey calls this “Post-Rosse” world is revealed as a newly-forged, post-human world of hybridized and mediated telescopic vision. As De Quincey notes in “System of the Heavens,” it is through the exposure of the nebula in Orion, that the mightier abyss in the human mind is also revealed:

¹⁶ According to Armstrong, “De Quincey identified the Nebula of Orion, a test case for astronomy, with the lantern projections of the phantasmagoria” (258), a point I find relevant in my reading of his preoccupation with machinery and reproduction.

¹⁷ Critics like Anne Janowitz similarly notes that “The quantitative mathematics of Newton’s universe did not exhaust the affective sublimity of the night sky; in fact, it seemed to augment its incomprehensibility, and encouraged a poetic and theory of the sublime to account for it” (490).

¹⁸ According to Cian, De Quincey commodifies the sublime in the essay by “entirely (re)imagin[ing] the nebula, combining empirical data and culturally-determined responses into a composite product which can be had for money by the *Tait’s* reader without the need for specialist education or experience” (8), a reading I find relevant to my interpretation of De Quincey’s use of the imagery of “reproduction” here.

Great is the mystery of Space, greater is the mystery of time; either mystery grows upon man, as man himself grows; and either seems to be a function of the godlike which is in man. In reality the depths and the heights which are in man, the depths by which he searches, the heights by which he aspires, are but projected and made objective externally in the three dimensions of space which are outside of him. (Burwick 15: 401)

The reference to measurement, including the “depths” and “heights” of human psyche and its external projection “in the three dimensions of space,” speaks to the preeminence of objectivity and mechanical precision in scientific exploration. Astronomical advancement discloses “the godlike which is in man,” a prophetic sight of the infinite and the divine focalized by Rosse’s telescopes. However, the focus on the “mystery” and the abyss-like unknowability of the Great Nebula’s cosmic scale also underscores the uneasy relationship between scientific inquiry and the spiritual vision promised by the supposedly better optical equipment. The result is a haunting mirroring effect upon the human-viewer, for whom “a mightier abyss . . . will one day be expanded in himself”:

He trembles at the abyss into which his bodily eyes look down, or look up; not knowing that abyss to be, not always consciously suspecting it to be, but by an instinct written in his prophetic heart feeling it to be, boding it to be, fearing it to be, and sometimes hoping it to be, the mirror to a mightier abyss that will one day be expanded in himself. . . . (Burwick 15: 401)

The external space becomes another optical mechanism that reflects and reproduces the cosmological vision within. The telescopic vision plays an intermediary role in this reflection and projection of the astronomical “abyss” inward. Armstrong points out that views like “the ‘unresolved’ telescopic reading of the nebulae” are “bound up with the structure of parallax, the experience of multiple change in observer and observed, non-correspondence and misalignment, that became one of the defining problems of nineteenth-century modernism” (292). De Quincey compounds the spectral vision produced by the parallax structure by troubling the dualistic and yet symbiotic relationship between mechanical calculation and human cognition: “Such . . . as is space for the grandeur of man’s perceptions, such as is space for the benefit of man’s towering mathematic speculations, such is the nature of our debt to Lord Rosse—as being the philosopher who has most pushed back the frontiers of our conquests upon this exclusive inheritance of man” (Burwick 15: 402). Lord Rosse’s telescopes assist “man’s

towering mathematic speculations” with the empirical evidence of his astronomical “conquest” (Burwick 15: 402). De Quincey aligns human perception with mechanical and mathematical ingenuity while differentiating humans from animals: “Man only has a natural function for expanding on an illimitable sensorium, the illimitable growths of space. Man, coming to the precipice, reads his danger; the brute perishes: man is saved; and the horse is saved by his rider” (Burwick 15: 402). Facing this unprecedented technical-cognitive revelation—this “mightier abyss”—De Quincey exercises an alternative “optical management” with a man-horse analogy that might also save his readers from the danger of falling into the precipice of emotional and spiritual panic disclosed by Lord Rosse’s powerful telescopes.

De Quincey’s “discovery” of the “mightier abyss” within, mirrored by the telescopic revelation, is complicated by “the mystery of time” (Burwick 15: 401). While De Quincey equates the “growth of man” with the growth of scientific exactitude, what the “prophetic” human heart trembles to look into is not a forward-moving act of human civilization, or an expansion of one’s “ilimitable” inner “godlike” self. Rather, it is the unappetising secret of the cosmological past caught off guard and violently made exposed. Such a haunting backward glance suggests how De Quincey would have had the time difference between the stars’ emanation of light and the belated images viewers receive at the moment of its discovery in mind.¹⁹ Perhaps what Grevel Lindop says about this essay as a “bizarre prose poem” is not so bizarre after all (359). Due to its temporal lag, Lord Rosse’s resolution can only be a glimpse into antiquity, a voyeuristic foray into the previously concealed existence of a dreadful universe in formation:

[T]here is a picture . . . a dreadful cartoon, from the gallery which has begun to open upon Lord Rosse’s telescope, where the appropriate atmosphere for investing it must be drawn from another silence, from the frost and from the eternities of death. It is the famous nebula in the constellation of Orion; famous for the unexampled defiance with which it resisted all approaches from the most potent of former telescopes; famous for its frightful magnitude and for the frightful depth to which it is sunk in the abysses of the heavenly wilderness; famous just now for the submission with which it has begun to

¹⁹ According to Michael Hoskin, William Herschel “was the first clearly to state what has become a commonplace in modern cosmology, that to see an object at distance is to see it in past time” (3). De Quincey’s scientific awareness of this temporal-spatial lag is also shown in one of the footnotes in the essay to 61 Cygni, one of the very first constellations measured by Fredrich Bessel in 1838 other than the Sun in terms of its distance from the earth using parallax measurements, a few years before the publication of De Quincey’s essay (Burwick 15: 408-09).

render up its secrets to the all-conquering telescope; and famous in all time coming for the horror of the regal phantasma which it has perfected to eyes of flesh. . . . (Burwick 15: 403)

Such an imperial (as well as empirical) vision, primordial, and untempered as it seems, is depicted ironically through the analogy of ancient picture galleries, presumably outmoded and potentially duplicable. As De Quincey explains earlier in the essay, this celestial “wilderness” with its “frightful magnitude” and “frightful depth” has been half-predicted by the “instinct” in the human heart and half-revealed to “his bodily eye.” Calling this picture “the ruins made by Lord Rosse,” De Quincey sees in this sidereal vision not only as an archeological act and an astral excavation, but also a historical reenactment, through which “new” astronomical insights are uncannily revealed to be pre-existent and refracted through the gothic lens of a ruinous cosmic past. Rather than confirm a teleological narrative of technical progress, De Quincey sees this astronomical “resolution” as an optical transgression and a theological relapse; but more specially, such a cosmic revelation is also a palimpsest-like disclosure of an adulterated and delayed mirror image, an accidental and retrogressive unveiling of and a virtual encounter with a cosmic “other” that has been half-predicted, simulated, and has “perfected” “the horror of the regal phantasma” to the human eye across time and space.

De Quincey dwells upon this astral anachronism further, borrowing texts, objects, and images from various sources—what Cian calls “a composite product”—to account for this supposedly unprecedented nebular sight (8). While De Quincey claims to reveal what Lord Rosse’s six-foot mirror has discovered, his depiction refers to the picture of the Orion Nebula drawn by Nichol in his *Thoughts on Some Important Points Relating to the System of the World* (1846), which is then based upon an image “which Sir John Herschel was able to arrest in his eighteen-inch mirror” in 1825 to produce an optical “apocalypse” with various degrees of fuzzy uncertainty (Burwick 15: 404), and thus, as Cian puts it, is “two removes from its ostensible, scientific source” (2). De Quincey first invites his readers to imagine “walk[ing] into the front drawing-room of” Lord Rosse’s telescope “on some moonless night” (Burwick 15: 403), a classic gothic setting for one’s encounter with the sublime. He then relates the experience of his visit “four-and-twenty years ago in the British Museum”—his viewing of the Memnon’s head, a granite statue recently brought from Egypt and displayed there (Burwick 15: 403). De Quincey exclaims that “nothing so great was ever beheld. The atmosphere for this, for the Memnon, was the breathlessness which belongs

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to a saintly trance; the holy thing seemed to live by silence” (Burwick 15: 403). As De Quincey explains, the experience of the sublime defies and undermines the very attempt of reasoning and rational computation: “what it symbolized to me were: 1. The peace which passeth all understanding. 2. The eternity which baffles and confounds all faculty of computation; . . . 3. The diffusive love, . . . not such as sinks and swells by undulations of time, but a procession—an emanation from some mystery of endless dawn” (Burwick 15: 403). The “atmosphere” of the sublime transcends “all understanding” and temporal existence (“undulations of time”) and emanating eternal love. Drawing an analogy between the Orion Nebula and the Memnon’s head, De Quincey provides an atmospheric, immersive, and exhibitionary simulacra of the nebula (which is not so much like a nebula), which performs the visual effect of *camera obscura* upon the viewer twice removed from the real thing. Armstrong notes that “astronomical imaging” in the nineteenth century “was a composite, an ideal representation that was an artefact of seeing” (304). De Quincey pushes this “artifact of seeing” a step further by reversing what Gillen D’Arcy Wood calls “the shock of the real,” the complex Romantic response of both appreciation for and disengagement from “the emerging visual media and entertainment industry” (7). By doing so, De Quincey converts Lord Rosse’s scientific claim to cosmic truth back into an imprecise, metonymic, and sensationalized “verisimilitude” of “the real thing” prevailing in nineteenth-century visual culture.

This “diffusive love” of the cosmos soon escalates into hatred. The telescopic vision of the Great Nebula morphs into a mummified space history of Eastern despotism. De Quincey sees in Nichol’s engraving “a head thrown back, and raising its face, (or eyes, if eyes it had,) in the very anguish of hatred, to some unknown heavens” (Burwick 15: 404). This head is part human and part animal, with both “an Assyrian tiara” and a “snout”: “What should be its skull wears what might be an Assyrian tiara, only ending behind in a floating train. . . . Brutalities unspeakable sit upon the upper lip, which is confluent with a snout; for separate nostrils there are none” (Burwick 15: 404). Qualifiers such as “or . . . if . . . ,” “some,” “should be,” and “might be,” as well as adjectives such as “unknown” and “unspeakable” highlight the speculative, in-between nature of the representation. Its mutating, unidentifiable feature is both angelic and brutal: “All power being given to the awful enemy, he is beautiful where he pleases, in order to point and envenom his ghostly ugliness” (Burwick 15: 404). It is also partly Oriental and partly allegorical, with De Quincey’s allusion to John Milton’s depiction of Death, who smells, savors the “scent” of “mortal change on earth” and “living carcasses design’d / For death”, and smiles (Burwick 15: 404). The image of a

skull is anatomized and then diagnosed (as well as analogized) by De Quincey as a sultan wearing plumes and a diadem. Its “cruel brain” of the Orion Nebula, along with its diadem, are broken into “a horrid chasm, a ravine, a shaft, that many centuries would not traverse” (Burwick 15: 405). De Quincey sees the “serrated” opening “on its posterior wall” as being smashed “with a harrow that perhaps is partly hidden” (Burwick 15: 405). De Quincey continues to access the “two processes” in the astral brain—“one perpendicular, and rigid as a horn, the other streaming forward before some portentous breath”—and acknowledges that “[w]hat these could be, seemed doubtful” (Burwick 15: 405). In the footnote, De Quincey draws another analogy between the star formation and the sultan’s jewelry, associating their “regularity” and repeated patterns with “the forms in a kaleidoscope” (Burwick 15: 405). As De Quincey notes, this picture is “now a vision ‘to dream of, not to tell’: he is ready for the worship of those that are tormented in sleep” (Burwick 15: 405). While explicitly identifying his picture as a nightmarish scenario, De Quincey also implicitly places himself on a par with scientists like Sir William Herschel, John Herschel, and Lord Rosse, who reverse “some heavenly doom, like the raising of the seals that had been sealed by the angel, in the Revelations” (Burwick 15: 405).

De Quincey employs various fanciful imagery to depict the astronomical sublime, claiming it to be “unspeakable” and unrepresentable (Burwick 15: 404). However, De Quincey also applies calculation, analogy, and the language of precision to emphasize the (im)measurable scale of its grandeur. In the footnote section, De Quincey offers Nichol’s computation of the ratio between the distance of Bessel’s 61 Cygni (“the space being our own distance from the sun repeated six hundred and seventy thousand times”) and that of Lord Rosse’s sidereal vision—forty-one thousand years to two hundred and fifty millions years—to accentuate “the superhuman power lodged in the new telescope” of Lord Rosse (Burwick 15: 409-10). De Quincey further suggests Lord Rosse’s telescopic vision to be duplicable through various visual and textual analogies. He instructs his readers to turn the engraving of Nichol upside down to be able to see the dissected head of a sultan. He also predicates his portrayal of the astronomical sublime upon the vocabulary of simulacra—his simultaneous evocation of a virtual tour from an imagined “front drawing-room” of Lord Rosse’s telescope, his British museum experience “some four-and-twenty years ago,” and then Milton’s rebellious angels of Heaven.²⁰ In particular, the awfulness of the

²⁰ I agree with Cian that “De Quincey offers the reader of his essay a vicarious encounter with the ‘natural sublime’ by ‘parallel[ing] and complement[ing] various other forms of contemporary ‘virtual tourism’ and ‘effectively commoditises the ‘natural sublime’ for the magazine reader” (2-3). My reading further

nebula is “unmasked,” captured, and “arrested” by Lord Rosse’s telescopic “exposure” at the very moment of its “incestuous” conception in the manner analogous to that depicted in Milton:

Had Milton’s “incestuous mother,” with her fleshless son, and with the warrior angel, his father, that led the rebellions of heaven, been suddenly unmasked by Lord Rosse’s instrument, . . . there would have been nothing more appalling in the exposure; in fact, it would have been essentially the same exposure: the same expression of power in the detestable phantom, the same rebellion in the attitude, the same pomp of malice in the features to a universe seasoned for its assaults. (Burwick 15: 403-04)

The cosmic sublime is imagined as a photography-like reproduction made accessible by De Quincey’s repeated reassurance to his readers of “the same exposure,” “the same expression of power,” “the same rebellion,” and “the same pomp of malice.” De Quincey’s representation of the nebular thus points toward the duplicable quality of the sublime experience in its emulation of the scientific instrument in its powerful mirror image to duplicate and reflect back the “exact” picture of that “dreadful cartoon, from the gallery which has begun to open upon Lord Rosse’s telescope.”

Conclusion

Critics have shown how analogous language breaks down in the face of the astronomical sublime in the nineteenth century, when the mechanical worldview becomes no longer viable.²¹ While De Quincey’s writing illustrates the inadequacy of analogous language as a medium of linguistic precision to represent the astronomical sublime, it also demonstrates how his aesthetic imagination is profoundly entangled with the notion of scientific exactitude. In “System of the Heavens,” De Quincey refers to the words of “an eminent man” from “the last

sees this evocation of the language of simulacra as De Quincey’s attempt to achieve some kind of linguistic precision.

²¹ Marilyn Gaull sees synecdoche as a form of representation that replaces analogical thinking in nineteenth-century scientific “concepts of process, systems” and “the vast, timeless, and changing, concepts such as photosynthesis, electricity, and all the evolutionary sciences” (35). Devin M. Garofalo similarly argues for the failure of the language of analogue to “affixe[s] unfamiliar phenomena to familiar ones, thus assimilating the seemingly unassimilable into extant systems of knowledge” in nineteenth-century astronomy (592). However, according to Garofalo, “Analogy—particularly when it fails . . . opens up critical space for building otherwise, for preserving difference in intimation, for reimagining mutual defamiliarization as the basis for intimation” (597).

century” to contrast the Newtonian cosmology with the modern (nineteenth-century) sentiment of what a transcendental experience is like: “Regularity may be beautiful, but it excludes the sublime” (Burwick 15: 414). Paradoxically, it is also through the notion of technical precision and measurability that a grander vision (and version) of the cosmic (as well as optic) sublime is shown in his work. De Quincey remarks on “two classes of nebulae”—“one that were worlds, one that were not, but only the pabulum of future worlds”: Lord Rosse’s telescope “walked into Orion; destroyed the supposed matter of stars; but, in return, created immeasurable worlds” (Burwick 15: 408). In what Cian calls De Quincey’s “highly-conservative cosmology” (7), the ostensibly messy cosmic vision is made justifiable through God’s creation. What seems less noted is De Quincey’s epistemological malleability and capacity to emulate scientific precision and account for the elasticity of a new cosmology through his transmedial, pictorial-textual, and organic-mechanical imagination.

De Quincey’s periodical writing like “System of the Heavens Revealed by Lord Rosse’s Telescopes,” as Cian notes, remediate, popularize, and commercialize “the sublime” for non-specialist readers (2-3),²² but they also speak to how, for him, mechanical precision is a promising, albeit mediated, way of seeing, and precariously so. Telescopic visions are also historical hindsight, a belated knowing, with the gallant human rider-viewer arriving at the crime scene long after. To account for this retrospective Herschelian cosmology, his work employs epistemological dualism, the imagery of machinery, and the language of reproduction to go beyond the analogical thinking of his time that was found wanting. Written before Darwin’s 1859 *On the Origin of Species*, De Quincey’s epistemological dualism reflects, duplicates, and magnifies the tension between poetry and science, between the organic and the mechanical understanding of the natural laws of his time.²³ However, technological materiality also facilitates his poetic visions and establishes his authority as a writer of “moving” and “living” power, an aspect that seems often overshadowed by his theorization of, and indeed prioritization of, literary imagination.

These writings of De Quincey provide alternative approaches to rethinking Carlyle’s “mechanical age,” in terms of the multi-layered roles the notion of

²² De Quincey would defend his essay against the later comments of a critic in *Westminster Reviewer* on his fanciful language and of his friend Nichol on his being scientifically outdated by arguing in the revised version for the astronomical validity of his depiction, despite the “solemn and impassioned” or “gay and playful” manner of his writing (Smith, “De Quincey’s” 207-08).

²³ Critics have associated the brain-nebula image revealed by Lord Rosse’s telescopes with the devastating witness of the death of his sister Elizabeth when he was seven, a scene De Quincey would revisit repeatedly in his autobiographical accounts (Morrison 14-17, 346; Lindop 8-12; Barrell 25-36, 54).

scientific precision plays in a society of increasing technologization and emerging disciplinarity. For De Quincey, as well as his contemporary Romantic writers, technical advancement mediates, manages, as well as enhances one's visionary power. The mechanical process of cognitive reproduction, memory retrieval, and image replication potentially sustains the organic vitality of human perception.

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