BEYOND THE *FLAMMANTIA MOENIA MUNDI*

THE TRANSGRESSIVE NOTION OF THE SUBLIME IN LUCRETIUS' *DE RERUM NATURA*

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ABSTRACT – *Lucretius'* De rerum natura *evokes a unique and unprecedented form of the sublime, the 'scientific-poetic sublime'. Lucretius, the architect of Roman Epicureanism, proposes an investigation of the universe through the combined eyes of the scientist and sensibility of the poet. Through rational investigation of nature, Lucretius aims to dispel superstition and fear of the unknown. The scientific-poetic sublime is Lucretius' way of transgressing traditional ways of thinking; in his poem, he offers a space for freedom of thought and reaffirms the power of the individual before the cosmos. Additionally, he suggests a vision of nature as full of wonder and amazement. This article shows that the scientific-poetic sublime departs from both Burke's and Kant's eighteenth-century analyses of the sublime and constitutes a revolutionary way to approach science with creativity and the aid of the poetic form. In* De rerum natura*, Lucretius proposes both what Conte defines as a* genus scribendi *to scientifically explain natural phenomena, and a* genus vivendi *for understanding and experiencing what, to him, are the marvels of the universe.*

INTRODUCTION

Lucretius' *De rerum natura*, likely written in the mid-first century BCE,[1] is a revolutionary poem, breaking conventions in both content and style. Lucretius

crafts the hexameter and moulds the Latin language in a particular way to present Epicurus' philosophy to the Roman world, and to describe a universe made of atoms where everything happens by necessity. Moreover, in Lucretius' *De rerum natura* a further, lesser-known aspect of its innovative nature is detectable, namely a particular form of the sublime that I call the 'scientific-poetic sublime'. The scientific-poetic sublime is a way of thinking and writing characterized by an approach to nature and the cosmos that combines the meticulous and curious eye of the scientist with the sensibility of the poet to interpret and describe what Lucretius considers to be the marvels of the universe. The scientific approach is characterized by efforts to find rational explanations for natural phenomena through investigation of their causes. The poetic approach is defined by creativity, imagination, and by an evocative use of language. The scientific-poetic sublime, as Lucretius conceives it, combines these two approaches. While he proposes to his readers an investigation of the universe and complex natural phenomena, his project goes far beyond a bare explanation of how the cosmos works. For Lucretius, exploration of the universe offers opportunities to affirm the power of the individual within the cosmos. His work aims at liberating frightened minds from superstition and passivity in the face of the grandiosity of natural phenomena, and at dispelling fear in favour of the power of knowledge. Lucretius' concept of the sublime differs from our contemporary understanding of the sublime, shaped for the most part by the eighteenth-century analyses of Kant and Burke.

First, investigations of the sublime in Antiquity and in the eighteenth century, which include elements of continuity and of rupture with the Lucretian notion of the sublime, are briefly explored. These investigations shed light on the fact that, despite some similarities, the scientific-poetic sublime remains a peculiarity of Lucretius' work. An overview of the particular historical and political context in which Lucretius wrote is then offered, with a contextual discussion of the features of the scientific-poetic sublime presented and developed by his work.

1 It is not clear when exactly Lucretius wrote. One support to dating the poem around the first century BCE is Cicero's letter to Quintus in February 54 BCE which mentions the *Lucretii poemata*. Another hint is given by the dedication of the poem to Memmius who was praetor in 58 and consular candidate in 54.

A HISTORY OF THE SUBLIME: FROM ANTIQUITY TO BURKE AND KANT

The roots of the philosophical concept of the sublime can be traced back to the Presocratics (sixth to fifth century BCE).[2] The Presocratics' investigation is characterized by a passion for natural phenomena and for searching out their causes, combined with a poetic mode of presenting their theories. Their approach is defined by creativity and imagination, and their cosmological intuition is often sketched with mysterious colourations. James Porter identifies this Presocratic investigation as involving the sublime because it elaborates a specific notion of matter that is central to their interests.[3] According to Porter, the sublime arises precisely from this notion of matter, which prioritizes it above form; the Presocratics focus on how matter pervades and generates the universe. In this sense, they share the materialistic approach of Epicurean philosophy. In particular, they explore matter and the various modes of matter that permeate an infinite space. Additionally, they privilege poetry for presenting their scientific intuitions of the cosmos. Three key similarities between the Presocratics' approach and Lucretius' way of investigating nature should be stressed: firstly, the poetic language with which they both propose their insights; secondly, the centrality of matter over form in both methods; and finally, their shared awareness of unexplored and obscured phenomena in the universe that simultaneously attract and frighten humankind.

Another approach to the sublime presents elements of continuity with Lucretian investigation, namely Seneca's view as it emerges from the *Naturales quaestiones*, written around 64 CE.[4] At that time in Rome, Emperor Nero expressed a dominant and oppressive power, which dictated to the intellectual what and how to write. Although living in the century after Lucretius, due to their similar historical contexts, Seneca shares with Lucretius an impelling need for freedom. Seneca's work also investigates natural phenomena by trying to find their causes. He discusses a variety of natural phenomena for which there were no clear explanations at the time, and which were often regarded

2 For a diachronic study of the sublime, see Peter Shaw, *The Sublime: The New Critical Idiom* (London and New York: Routledge, 2005).

3 James I. Porter, *The Origin of Aesthetic Thought in Ancient Greece* (Cambridge: Cambridge University Press, 2010). A similar view is shared by Lisa Piazzi, *Lucrezio e i Presocratici. Un commento a* De rerum natura 1, 635-890 (Pisa: Edizioni della Scuola Normale Superiore di Pisa, 2005).

4 Arturo de Vivo, *Le parole della scienza. Sul tratto* De terrae motu *di Seneca* (Salerno: P. Laveglia edizioni, 1992); Giancarlo Mazzoli, *Seneca e la poesia* (Milan: Ceschina, 1970); Luciano Canfora, "Morale, natura, e storia in Seneca," in *Seneca: lettere a Lucilio*, trans. Caterina Barone (1989; repr., Milan: Garzanti, 2001), xliv-li.

5 Harry M. Hine, "Seismology and Vulcanology in Antiquity," in *Science and Mathematics in Ancient Greek Culture*, eds. Christopher J. Tuplin, Tracey E. Rihll, and Lewis Wolpert (Oxford: Oxford University Press, 2002), 56-75; Gerhard H. Waldherr, *Erdbeben, das aussergewöhnliche Normale: zur Rezeption seismischer Aktivitäten in literarischen Quellen vom 4. Jahrhundert v. Chr. bis zum 4. Jahrhundert n. Chr.* (Stuttgart: Franz Steiner, 1997).

as mysterious and frightening. For example, Seneca shows how scientific investigation can dispel fear of earthquakes by exploring what causes them, thus opening a path for rational understanding.[5] Conte's analysis of Lucretius' work can be accurately applied to describe Seneca's approach; for him the sublime is a *genus vivendi*,[6] and scientific investigation is a way of approaching life and looking at the world. In the *Naturales quaestiones*, Seneca combines scientific reasoning with a study in the fields of ethics and human behaviour. He pairs an explanation of natural phenomena with an analysis of human vices and techniques to avoid them. For Seneca, the scientific sublime includes not only the cosmos but also human psychology; scientific investigation allows both an understanding of the universe and of human nature.[7] In this sense, the sublime is a *genus vivendi* because it pertains to how the subject approaches the world and how she relates to other people. Despite similarities with the Lucretian scientific notion of the sublime however, Seneca's investigation is not poetic. Moreover, Seneca's choice of prose instead of poetry is emblematic of how differently Lucretius and Seneca conceive the sublime.

From the Roman world, the only surviving systematic analysis of the sublime is Longinus' *Peri hupsos*. Likely written in or near the first century CE,[8] the treatise understands the sublime as a rhetorical mode of writing, while for Lucretius the sublime is not only a mode of writing, but also a philosophical mode of thinking and approaching nature. Despite this fundamental difference, there is a particular connection between Longinus and Lucretius: the sublime, both as a rhetorical and a philosophical mode, reveals in these authors a transgressive nature, since for them it was a vehicle to express freedom of thought and speech. This particular characteristic of the sublime for both Longinus and Lucretius emphasizes that oppression is often a precondition for its existence. The sublime is born of the necessity of intellectuals to express their thoughts and creativity, and thus to reaffirm their power as free individuals against the constrictions imposed upon them. Longinus wrote in a historical period characterized by transformations in the conditions of the intellectual elite and

6 Gian Biagio Conte, *Genres and Readers*, trans. Glenn W. Most (Baltimore: John Hopkins University Press, 1994).

7 For detailed studies, see Gareth Williams, *The Cosmic Viewpoint* (Oxford: Oxford University Press, 2012); Gareth Williams, "Interactions: Physics, Morality and Narrative in Seneca, *Natural Questions* 1," *Classical Philology* 100 (2005), 142–65; Francesca Berno, *Lo specchio, il vizio e la virtù* (Bologna: Patron Editore, 2003); Michael Lapidge, "Stoic Cosmology and Roman Literature, First to Third Centuries A.D.," *Aufstieg und Niedergang der römischen Welt* II.36.3 (1989), 1379–1429; Ricardo Salles, *God and Cosmos in Stoicism* (Oxford: Oxford University Press, 2009).

8 The dates of Longinus' birth and death are controversial. Some scholars believe that he was born around 213 CE. Even the attribution of the treatise *On the Sublime* to Longinus is uncertain. The treatise seems to criticize the work of Caecilius of Calacte who wrote during the time of Augustus (27 BCE-14 CE), but the manuscript evidence shows that there were doubts regarding the authorship and the period in which the treatise was written from an early period. For recent discussion on this and further bibliography, see Reinhard Haussier, "Zur Datierung der Schrift

their freedoms.[9] According to Longinus, the sublime is a product of a great mind (*megalopsuchia*).[10] The last chapter of Longinus' treatise is dedicated to describing the lack of great minds and the general moral decadence of his time. If we assume that Longinus wrote during the first century CE, the Roman Republic and the freedom of speech that characterized the period in which it flourished were already distant memories. Longinus begins the last part of his work with an observation by an unidentified philosopher that "the growth of highly exalted and wide-reaching genius has with a few rare exceptions almost entirely ceased".[11] Through this philosopher, Longinus recounts the lack of freedom that characterizes his time, calling democracy "the kind nurse of genius"[12] and despotism a "cage of the soul".[13] According to his analysis, lack of political freedom and the consequent moral decadence, especially indulgence in 'bad passions', and a love of gain and pleasure, created a situation in which there was no freedom of thought, and caused the disappearance of the great minds able to produce the sublime. Therefore, the sublime, even as a form of writing, is conceived as strongly connected to freedom of speech and democracy. For Longinus, the sublime is a way to express intellectual freedom. His treatise laments the drastic need for great minds that could keep this dimension of free speech and thought alive even under oppressive conditions.

Longinus' treatise is a fundamental example of the connection between political oppression and the rise of the sublime. However, there is a distinction to be made between Longinus' notion of the sublime and its modern understanding. The sublime understood in Longinus' terms, namely as a rhetorical mode of thinking and writing, has lost ground in favour of other meanings of the sublime, shaped in many cases by eighteenth-century analyses of the sublime by Burke and Kant. Burke approaches the concept of the sublime in his work, *A Philosophical Enquiry into the Origin of our Ideas of the Sublime and of the Beautiful* (1756). He contrasts the beautiful and the sublime, both understood as properties of objects. While the beautiful is defined by an intrinsically positive character, associated with light and harmony, and inspiring feelings of pleasure

vom Erhabenen," in *Prinzipat und Kultur im 1. und 2. Jahrhundert*, eds. Barbara Kühnert, Volker Riedel, and Rismag Gordesiani (Bonn: Habelt 1995), 141-63.

9 I believe, as many scholars do, that Longinus wrote during the first century CE. My argument does not depend on the dating of Longinus, thus it would remain valid even if Longinus wrote in the third century CE, as some scholars argue (see note 8). If this were indeed the case, other elements may be considered causes of oppression: the so-called Military Anarchy that started with the assassination of Severus Alexander in 235 CE, and the period preceeding it, are characterized by the concentration of power in the hands of military leaders, increased localism, and a general atmosphere of economic depression and civil war.

10 With 'great mind', I understand here the ability to think rationally about problems and to have the expertise to express one's thinking in a written form. For a different account of the meaning of 'great mind' in Longinus, see Michel Deguy, "The Discourse of Exaltation: Contribution to a Rereading of Pseudo-Longinus," in Jean-François Courtine et al., *Of the Sublime: Presence in Question*, trans. Jeffrey S. Librett (Albany: State University of New York, 1993), 5-24.

and relaxation, darkness and a rupture of harmony identify the sublime. The sublime brings about a mixed feeling of pleasure and terror. According to Burke, the sublime speaks the language of domination and forces the individual to feel subjugated; it overwhelms and surpasses the subject. At the same time, the sublime evokes a deep fascination in the subject, who cannot help being attracted by it. The subject feels a negative pleasure, originating from the awareness of the danger of the sublime but also from its allure.

Similarly, this mixed character of the sublime is detected by Kant, who distinguished two kinds of sublime in his *Kritik der Urteilskraft* (1790): a mathematical sublime that comes from the perception of the grandiosity of the universe, and a dynamic sublime that derives from the feeling of being dominated by the overwhelming power of nature. For Kant, the sublime is generated by the perception of objects in the world. Kant argues that the sublime is in the mind of the subject because no object in the world can contain its grandiosity. According to Kant, the sublime is boundless and it inhibits our imagination and perception; humans are unable to grasp it. At the same time, it produces a sense of superiority of our reason over nature that inspires a negative pleasure. The pleasure is negative because on the one hand, while it is a true pleasure because it is generated by the sense that reason could overcome nature, on the other hand, an awareness of our inferiority before the power of nature, and of the inadequacy of our imagination to grasp the mathematical sublime, makes it negative. In the case of the dynamic sublime, nature is experienced as powerful, but simultaneously less frightening – as in the case of the mathematical sublime – since the subject observes nature from a safe position.

From this brief discussion of the sublime in Antiquity and the eighteenth century it is evident that the sublime has not remained a coherent concept throughout its long history, but rather that its features change and acquire different connotations. For this reason, the scientific-poetic sublime is singled out as a

11 Longinus, *On the Sublime*, 44.1, trans. H. L. Havell (London: Macmillan, 1890).

12 Ibid., 44.2.

13 Ibid., 44.5.

particular form of the sublime specific to Lucretius, which shares elements with investigations of the sublime by the Presocratics, Seneca, and Longinus. There is no mention of this particular form of the sublime in the literature on *De rerum natura* to date. Instead, the Lucretian sublime is often considered similar to Longinus', or to Kant's and Burke's conceptions of the sublime. Hardie, Porter, and Conte explore the connections between Lucretius and the history of the sublime, and their interpretations reflect the sublime as understood by Kant. A brief summary of their views helps situate this interpretation *vis-à-vis* these analyses of the Lucretian sublime within contemporary discourse.

Hardie's approach to the sublime is shaped by Kant's conceptualization. Hardie classifies the sublime as a property of objects, such as Mount Etna in Lucretius' poem or abstract figures such as *Fama* or *Religio*, and as the effect that these objects elicit in the subject.[14] Porter stresses the continuity of the idea of the sublime between Lucretius and Kant. He argues that the images offered by Lucretius in Book 6 of *De rerum natura* are also iconic of the sublime in the works of Longinus and Kant. Porter argues that Longinus did not likely take these images from Lucretius, but that both Lucretius and Longinus drew from a common tradition of writing about cosmological matters that is now lost to us.[15] Conte proposes a different understanding of the sublime in relation to Lucretius. According to Conte, Lucretius promotes an understanding of the sublime that he describes as *genus vivendi*; the sublime, in his reading, is for Lucretius a way of behaving and marvelling at the mysteries of the universe which is not confined to the scientific investigation, but involves the life of the subject in its totality.[16]

THE SUBLIME AS THE SEARCH FOR A SPACE OF FREEDOM

In Antiquity, the concept of the sublime was expressed with the Greek word ὕψος and with the Latin *sublimis*. The Greek ὕψος means 'high, above, upwards' and metaphorically 'summit or crown';[17] the Latin *sublimis* denotes

14 Philip Hardie, *Lucretian Receptions: History, The Sublime, Knowledge* (Cambridge: Cambridge University Press, 2015).

15 Porter, *The Origin of Aesthetic Thought in Ancient Greece*.

16 Conte, *Genres and Readers*, 19. Another influential interpretation of Lucretius is proposed by Luca Canali, *Lucrezio poeta della ragione* (Rome: Riuniti, 1986). Canali does not mention the sublime in relation to Lucretius, but stresses that scientific investigation in Lucretius' project functions as a way of freeing the subject's mind from traditions and myths. He claims that for Lucretius the search for the truth acquires the character of a combat against religion and myth.

17 See Henry George Liddell and Robert Scott, comps., *Greek-English Lexicon* (1843; repr. Oxford: Oxford University Press, 1995), s.v. "ὕψος".

'high up, elevated, tall, aloft' and is often used with reference to the sky or to celestial bodies.[18] Lucretius mostly uses the term as an adjective to qualify natural phenomena. However, he does not engage with the sublime only when he specifically uses the term *sublimis*. Passages in which the content or style of *De rerum natura* evoke the notion of the sublime are equally relevant. Lucretius holds a unique perspective on nature. For him the cosmos is grandiose, and atoms – at the other end of a scale from miniscule to vast – are mysterious and massive in their wonder-value. What modern science may consider objects of empirical research are for him objects of amazement and wonder. He strives to understand nature, but without dispelling these attitudes. For this reason, the sublime is almost omnipresent in his poem; by this definition, the sublime finds its place precisely within this blend of scientific-poetic approach towards nature. The sublime in Lucretius' *De rerum natura* is discussed here in two ways: firstly, the object of Lucretius' analysis is sublime because he deals with what is exceptionally grandiose – the cosmos – and massively small and mysterious – atoms; and secondly, the way in which Lucretius approaches, thinks, and ultimately writes about the universe is what I call the scientific-poetic sublime.

As discussed above, oppression is often a precondition of the sublime, and further comparison with Longinus' work and historical context provides an additional argument and a new insight in the understanding of this aspect of the Lucretian sublime. Like Longinus, Lucretius wrote in an era characterized by political turmoil. During his time, in the first century BCE, Rome witnessed civil war and the consequent end of the Republic. As Sean McConnell and Don Fowler stress, *De rerum natura* contains ample references to this political situation throughout.[19] The poem begins with an invocation to Venus, goddess of love and pleasure.[20] This invocation constitutes a reference to Lucretius' and the poem's Epicurean background, but also to the political situation of civil strife. Lucretius asks Venus to beseech Mars, the god of war, for *placidam pacem* (quiet peace) for the Romans because in this *tempore iniquo* (troubled time) it is impossible for the poet to do his job with *aequo animo* (an untroubled mind).[21] This is the

18 Peter G. W. Glare, ed., *Oxford Latin Dictionary* (Oxford: Oxford University Press, 1983), s.v. "sublimis". For etymology, see Jan Cohn and Thomas H. Miles, "The Sublime: In Alchemy, Aesthetics and Psychoanalysis," *Modern Philology* 74 (1977), 289-304. Cohn and Miles argue that the sublime originally indicates the quality of the object that elicits a particular reaction in the subject and then comes to designate this reaction itself.

19 Sean McConnell, "Lucretius and Civil Strife," *Phoenix* 66 (2012), 97-121; Don P. Fowler, "Lucretius and Politics", in *Philosophia Togata: Essays on Philosophy and Roman Society*, eds. Miriam Griffin and Jonathan Barnes (Oxford: Clarendon Press, 1989), 120-49.

20 See Robert D. Brown, *Lucretius on Love and Sex: A Commentary on* De rerum natura *IV, 1030–1287 with Prolegomena, Text and Translation* (Leiden: Brill, 1987).

21 Lucretius, *De rerum natura* 1.40-42, trans. William H. D. Rouse, Loeb Classical Library 181 (Cambridge, MA: Harvard University Press, 1924).

first reference that Lucretius makes in the poem to the political situation in his time. Further on in the poem, Lucretius describes how political corruption and the degradation of morals and customs became the norm in Rome.[22]

> Denique avarities et honorum caeca cupido,
> quae miseros homines cogunt transcendere fines
> iuris et interdum socios scelerum atque ministros
> noctes atque dies niti praestante labore
> ad summas emergere opes, haec vulnera vitae
> non minimam partem mortis formidine aluntur.[23]

In Lucretius' analysis, moral corruption is both due to the political situation and also to a plague directly affecting Roman minds, namely a fear of the unknown increased by superstition and caused by lack of knowledge. In this context, the sublime is a way for Lucretius to overcome this fear and replace it with rational tranquillity acquired through scientific investigation. For Lucretius, scientific investigation aims at freeing minds from superstition and making nature our 'friend', which can be approached not as a subject of fear that dominates us, but as an opportunity for our cognitive powers to explore the cosmos. As in the case of Longinus' understanding of the sublime, the sublime here is a tool for the philosopher to reaffirm his liberty and the power of thought against oppression.

The Roman aristocracy, and especially the intellectual circle patronized by Scipio, considered Stoicism to be representative of their value system. In opposition to this philosophical model, Lucretius appears as the Roman Epicurus who could make new values available to a new social class who were different from the aristocracy.[24] According to Epicurean philosophy, a wise person should not participate in politics and should instead aim to live in tranquillity in order to dedicate herself to study. Lucretius' position is in line with Epicurean philosophy in being materialistic and atomistic. As intellectualist as it may sound, Lucretius

22 McConnell interprets this reference as Lucretius' message to the Roman aristocrats, in which he denounces their love of greed and desire for honour. McConnell, "Lucretius and Civil Strife", 114.

23 Lucretius, *De rerum natura* 3.59-64, trans. Rouse: "Moreover, avarice and the blind lust of distinction, which drive wretched men to transgress the bounds of law, and sometimes by sharing and scheming crime to strive night and day with exceeding toil to climb the pinnacle of power, these sores of life in no small degree are fed by the fear of death".

24 For an historical introduction to *De rerum natura*: Luca Canali, *Lucrezio poeta della ragione* (Rome: Editori Riuniti, 1986); Stuart Gillespie and Philip Hardie, eds., The Cambridge Companion to Lucretius (Cambridge: Cambridge University Press, 2007); Luca Canali, *Il tridente latino* (Rome: Gaffi, 2007).

responds to the calamities of his time through science, namely by proposing the investigation of the universe as a therapy against fear, superstition, and dangerous passions. It has often been argued that the Epicurean wise person acts only in an emergency,[25] but to Lucretius, this does not mean that she passively accepts circumstances except in exceptional situations. On the contrary, Lucretius' task is a constant effort to replace dangerous passions such as fear and anger with *doctrina* and rational investigation into causes, even though he is aware of the difficulties of this process.[26] According to Lucretius, the wise person must replace fear and superstition with scientific investigation and the power of knowledge. In his description of Epicurus in Book 1, Lucretius creates an image of a revolutionary philosopher who looks up at the sky from a terrestrial perspective,[27] which contrasts with the traditional image of the philosopher, such as the one described in Plato's *Sophist*, who instead looks down from above.[28]

THE SCIENTIFIC-POETIC SUBLIME IN LUCRETIUS' *DE RERUM NATURA*

For Lucretius, the sublime is a way to transgress boundaries and create a space for freedom of thought. Nevertheless, the sublime is not conceived as a *locus amoenus* to which one can escape from the present situation and find the tranquillity for writing. On the contrary, the sublime has transgressive force in that it aims to overturn and denounce, although in a philosophical way, any form of oppression. This transgressive force of the sublime pervades his entire poem. From the start, the description of Epicurus strikes the reader as a depiction of a revolutionary man:

> Humana ante oculos foede cum vita iaceret
> in terris oppressa gravi sub religione,
> quae caput a caeli regionibus ostendebat
> horribili super aspectu mortalibus instans,
> primum Graius homo mortalis tollere contra

25 Cicero and Seneca claim that a wise person takes part in politics only under certain extreme circumstances: "extra quam si eum tempus et necessitas cogerit" (Cicero, *Republic* 1.10), "nisi si quid intervenerit" (Seneca, *De Otio* 3.2). Cicero and Seneca do not explicitly refer to the Epicurean wise person and it is possible that they refer to the Stoic sage. However, in that case it would be unusual to claim that the Stoic sage takes part in politics only in extreme circumstances.

26 Lucretius, *De rerum natura* 3.307-322.

27 See also Lee Fratantuono, *A Reading of Lucretius'* De rerum natura (London: Lexington Books, 2015), 23.

28 Plato, *Sophist* 216c.

est oculos ausus primusque obsistere contra,
quem neque fama deum nec fulmina nec minitanti
murmure compressit caelum, sed eo magis acrem
inritat animi virtutem, effringere ut arta
naturae primus portarum claustra cupire.
Ergo vivida vis animi pervicit, et extra
processit longe flammantia moenia mundi
atque omne immensum peragravit mente animoque,
unde refert nobis victor quid possit oriri,
quid nequeat, finita potestas denique cuique
quanam sit ratione atque alte terminus haerens.
Quare religio pedibus subiecta vicissim
obteritur, nos exaequat victoria caelo.[29]

In this passage, Lucretius describes the oppression under which humankind lived before the transgressive act of Epicurus in triumphing over superstition by the power of free thought.[30] Human lives were characterized by being *oppressa* (crushed) under the weight of superstition, personified as a terrible being that bears down on the terrestrial world from above. In the passage there are many terms indicating oppression and weight. Opposing superstition's pressure from the sky onto the ground, Epicurus' gaze creates an opposite force from ground to sky, toward liberation from oppression. In this regard, he is the first to dare raise his eyes against superstition; his unafraid upward gaze confronts it directly, and in doing so, overcomes it. Lucretius lists all those conditions that traditionally impeded men from confronting superstition because they provoke fear of the unknown: stories of the gods, thunderbolts, roars from heaven. Superstition originates from a mixture of these fears and a sense of the smallness and frailty of humanity before the power of nature. The mechanism that feeds superstition is the inability to go beyond fear and replace it with scientific investigation of natural phenomena. Scientific investigation allows humans to be unafraid, and provides a framework to find rational explanations

29 Lucretius, *De rerum natura* 1.62-79, trans. Rouse: "When man's life lay for all to see foully grovelling upon the ground, crushed beneath the weight of superstition, which displayed her head from the regions of heaven, lowering over mortals with horrible aspect, a man of Greece was the first that dared to uplift mortal eyes against her, the first to make stand against her; for neither fables of the gods could quell him, nor thunderbolts, nor heaven with menacing roar, but all the more they goaded the eager courage of his soul, so that he should desire, first of all men, to shatter the confining bars of nature's gates. Therefore the lively power of his mind prevailed, and forth he marched far beyond the flaming walls of the world, as he traversed the immeasurable universe in thought and imagination; whence victorious he returns bearing his prize, the knowledge of what can come into being, what cannot, in a word, how each thing has its powers limited and its deep-set boundary marked. Therefore superstition is now in her turn cast down and trampled underfoot, whilst we by the victory are exalted high as heaven".

30 A separate analysis should be made on the use of language and metre and on the sublime character of language in Lucretius. For a linguistic study, see David West, *The Imagery and Poetry of*

for that which seems overwhelming and incomprehensible.[31] Epicurus is thus characterized by his courage in going beyond the *flammantia moenia mundi.* His powers of mind prevail against fear and superstition, and his imagination and thought traverse the universe. Thus, Lucretius describes in this passage a transgressive act in Epicurus breaking the boundaries of what seemed precluded to humans before. From this journey beyond 'nature's gates' Epicurus brings the prize of knowledge that dispels superstition from humankind.[32]

Lucretius uses his own 'prize of knowledge', scientific investigation, to explain natural phenomena. Conceiving the universe as full of atoms and understanding natural phenomena as collisions and interactions among atoms allows the philosopher to look at the cosmos with a scientific eye. In order to explain the universe, Lucretius creates a model based on atomic motion in which nothing is left to passions.[33] The method he uses to support his theory of the movement of the atoms is described by analogy with what we can see when the rays of the sun bring light into a dark room:

> Contemplator enim, cum solis lumina cumque
> inserti fundunt radii per opaca domorum:
> multa minuta modis multis per inane videbis
> corpora misceri radiorum lumine in ipso
> et vel ut aeterno certamine proelia pugnas
> edere turmatim certantia nec dare pausam,
> conciliis et discidiis exercita crebris;
> conicere ut possis ex hoc, primordia rerum
> quale sit in magno iactari semper inani.
> Dum taxat rerum magnarum parve potest res
> exemplare dare et vestigia notitiai.[34]

By analogy with the sun's rays, Lucretius indicates how he proceeds in his investigation of the universe. The first step is to observe a phenomenon, and

Lucretius (Edinburgh: Edinburgh University Press, 1969); Ivano Dionigi, *Lucrezio: le parole e le cose* (Bologna: Patron Editore, 1988).

31 See Giusto Traina, "Terremoti e società romana: problemi di mentalità e uso delle informazioni", *Annali della Scuola Normale Superiore de Pisa* 15 (1985), 867-87.

32 See also Elizabeth Asmis, *Epicurus' Scientific Method* (Ithaca: Cornell University Press, 1984).

33 There is an apparent contradiction between how Lucretius presents a materialistic universe in which there is no space for passions (according to the Epicurean philosophy, passions are caused by fine atoms in the soul) and the fact that he proposes a 'passionate' investigation, by using many expressions of passion.

34 Lucretius, *De rerum natura* 2.112-124, trans. Rouse: "Do but apply your scrutiny whenever the sun's rays are let in and pour their light through a dark room: you will see many minute particles mingling in many ways throughout the void in the light itself of the rays, and as it were in everlasting conflict struggling, fighting, battling in troops without any pause, driven about with frequent meetings and partings; so that you may conjecture from this what it

the second step is to consider how it reveals the workings of the universe. Thus, this is an inductive method that presupposes a similarity between microcosm and macrocosm: namely, what one observes on a smaller scale can happen on a larger scale. From the observation of particles illuminated by the rays of the sun, Lucretius infers that atoms work analogously to these particles and collide and struggle in the void.[35] His method of scientific investigation can thus be described as a method based on two steps: observation and conjecture.[36] In Lucretius' time, the lack of advanced instruments prevented measurable proofs beyond what one could plainly observe. Despite this problem, he employs the creativity of the poet to offer a coherent and compelling system to explain nature. He crafts his language in such a way as to make his scientific proposal more appealing to his reader, and enters the arena of competitive scientific theories with the powerful instrument of poetic language.

For Lucretius, the scientific-poetic sublime is what Conte defines as not only a *genus scribendi* but also a *genus vivendi*.[37] Namely, the sublime is a way of crafting the hexameter in order to appealingly explain how the universe works. Moreover, it is a mode of thinking about and living in the universe. In Lucretius' universe there is no space for superstition and fear; the philosopher looks at the most frightening phenomena as if they were atoms swirling and fighting in the void. He reacts to these phenomena by observing them and formulating an explanation. This process is characterized by *divina voluptas atque horror* (divine delight and a shuddering),[38] which Lucretius felt in response to Epicurus traversing the *moenia mundi*: "His ibi me rebus quaedam divina voluptas / percipit atque horror, quod sic natura tua vi / tam manifesta patens ex omni parte retecta est".[39] Through his scientific exploration however, Lucretius is the 'new Epicurus' who dispels the darkness of superstition with the light of reason in the Roman world.

In *De rerum natura* investigation of the universe produces a feeling of simultaneous pleasure and terror. These are the same reactions that Kant

is for the first-beginnings of things to be ever tossed about in the great void. So far as it goes, a small thing may give an analogy of great things, and show the tracks of knowledge".

35 On atomic motion in Lucretius, see: Don P. Fowler, *Lucretius on Atomic Motion* (New York: Oxford University Press, 2002); on atomism in Antiquity, see John R. Milton, "The Limitations of Ancient Atomism", in Tuplin et al., *Science and Mathematics*, 178-95.

36 For an introduction to the method of science and on the history of science in Antiquity, see Tracey E. Rihll, "Greek Science in Context", in Tuplin et al., *Science and Mathematics*, 2-21.

37 Gian Biagio Conte distinguishes between *genus vivendi* and *genus scribendi* as different ways of approaching the sublime: the sphere of action of the sublime shifts from the object to the subject. Conte, *Genres and Readers*, 19.

38 Petrus Hermanus Schrijvers, Horror ac divina voluptas: *études sur la poétique et la poésie de Lucrèce* (Amsterdam: A. M. Hakkert, 1970).

describes in relation to the sublime: the sublime generates terror because of the grandiosity of natural phenomena that the subject perceives, but at the same time brings pleasure because the subject is aware of the power of reason over nature. Pleasure and terror are elements of the sublime described by Kant, and are understood as something that happens in the mind of the subject. They are also part of the scientific-poetic sublime as presented by Lucretius' mode of investigation of the universe. For Lucretius, however, pleasure has a different connotation than it does for Kant. To Lucretius, the pleasure of the scientific-poetic sublime is induced by not seeing nature as a mighty and frightening force. Through scientific investigation, by searching out rational explanations for what happens in the cosmos, nature is successfully brought to rational terms. One experiences a different feeling in relation to the Lucretian sublime than that elicited by the sublime described by Kant or by Burke. Firstly, one tries to formulate a scientific explanation of natural phenomena by looking for their causes. Secondly, she enjoys this scientific exercise of reducing nature to a rational frame. But even in this rationalistic view of the universe, she feels terror because she is aware of the impossibility of explaining everything and finding a scientific explanation for every phenomenon in the world.

CONCLUSION

Lucretius' *De rerum natura* presents an unprecedented and unparalleled form of the sublime called the scientific-poetic sublime. In Lucretius' work, the scientific-poetic sublime is a way of investigating and thinking about the universe. The scientific-poetic sublime has the peculiarity of originating from a scientific investigation that combines rational analysis and the search for causes of phenomena with creativity and poetry. In this particular form, the sublime is very different from the eighteenth-century descriptions of the phenomenon by Burke and Kant, which often shape the modern notion of the sublime. Further, some traces of the scientific-poetic sublime can be found in Presocratic philosophy, and Lucretius' approach is in some ways also similar to that of

39 Lucretius, *De rerum natura* 3.28-30, trans. Rouse: "Therefore from all these things a sort of divine delight gets hold upon me and a shuddering, because nature thus by your power has been so manifestly laid open and uncovered in every part".

Seneca. Via comparison with Longinus' treatise on the sublime, it is possible to single out a precondition of it, namely oppression. In this sense, the sublime is a way of conceiving nature that goes beyond superstition and conventional ways of thinking, and it creates a space of individual freedom.

Beyond the poetic fascination that the scientific-poetic sublime exercises, this way of thinking about cosmic matters has the advantage of combining poetry with science, two approaches that are often considered contrasting. The scientific-poetic sublime demonstrates how Lucretius investigated the universe and how he conceived nature as full of wonder. Additionally, it shows how two fundamental approaches to nature can be fused together. In modern study of scientific phenomena these two approaches – scientific and poetic – have parted from one another. Thus, *De rerum natura* is a unique occasion to admire the sublimity of language and the poet's expertise in moulding hexameter to discuss scientific matter. Lucretius' double approach allows him to establish a relationship with nature that leaves superstition and fear behind, and emphasizes creativity and freedom of thought.

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The *Journal of the LUCAS Graduate Conference* was founded in 2013 to publish a selection of the best papers presented at the biennial LUCAS Graduate Conference, an international and interdisciplinary humanities conference organized by the Leiden University Centre for the Arts in Society (LUCAS). The peer reviewed journal aims to publish papers that combine an innovative approach with fresh ideas and solid research and engage with the key theme of the LUCAS, the relationship and dynamics between the arts and society.

The *Journal of the LUCAS Graduate Conference*, **ISSN 2214-191X**, is published once a year, on 1 February, by Leiden University Library (Witte Singel 27, 2311 BG Leiden, the Netherlands).

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