

## **nail's lucretius: strong misreading and whig history**

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Thomas Nail's interpretation of Lucretius, the Roman poet and follower of Epicurus, forms part of an ambitious multi-volume project devoted to the philosophical vindication of motion.<sup>1</sup> His impressively-titled work of transcendental ontology, *Being and Motion* (2019), presents itself as responding to the needs of the contemporary moment: recent developments in various fields—politics, aesthetics, science, and even ontology—have revealed that the time has come to affirm the “primacy of motion.” For Nail motion is not derivative or secondary; it is not the motion *of* something more fundamental, like a substance, body, structure or idea. All such putatively fundamental entities are secondary to and derivative of motion, and Lucretius, he claims, is one of the few historical precedents for this view.<sup>2</sup> Nail repositions Lucretius in the context of contemporary “new materialism,” as an alternative to the constructivism,

anti-realism, and implicit anthropocentrism of most critical theory in the late-twentieth and early-twenty-first centuries and in order to combat the unfortunate disconnect between the humanities, arts, and sciences, which makes it hard to “see the big picture” of globalization and climate change and stymies the prospects of collective ethical and political practice.<sup>3</sup> While the coherence and persuasiveness of Nail’s kinetic onto-ethical project do not necessarily depend on his reading of Lucretius’s philosophical poem *De Rerum Natura* (“On the Nature of Things”), he insists on this connection between the ontological needs of the present and the history of philosophy, which I scrutinize in this paper.

In *Lucretius I: An Ontology of Motion*, Nail treats the titular Roman as a remarkably original thinker who stakes out a view of nature quite different from that of his hero Epicurus and generally out of step with his intellectual context in the first century BCE. Lucretius is not an atomist, and he conceives of matter in motion in a way that already anticipates the quantum fields of contemporary physics, rather than the Early Modern materialism with which other historians have sometimes associated him. Although Nail says here only that it is “possible” to return to and re-evaluate Lucretius, thanks to what we know about the physical world today, nevertheless I will argue that he is committed, at least in *Lucretius I*, to the view that his interpretation of Lucretius is substantially correct. Such is the force of his polemics with those who foist upon Lucretius too much ancient Epicureanism or too much Early Modern atomism. I will also argue that Nail’s interpretation is basically unconvincing. It is not only doubtful in comparison with the way that other historians of philosophy have interpreted Lucretius, on whose conclusions Nail casts suspicion. To gainsay Nail on the basis of classical scholarship alone would be to beg the question against his anti-atomic reading. Nail’s *Lucretius* fails to convince on its own terms, in relation to the methodological approaches to *De Rerum Natura* that he himself endorses: close reading and translation, on the one hand, and a certain conception of the history of ideas, on the other.<sup>4</sup>

On the level of close reading and translation, Nail draws attention to the “original meanings” of Lucretius’s Latin, the etymologies of words, the misleading implications of the English terms used in translations, and long sections of his books on Lucretius are devoted to the explication of what he takes *De Rerum Natura* to be really saying. These glosses and commentaries, however, are rife with errors and consequently misprision. Charitably, I will suggest, Nail is a “strong reader” in the sense that Harold Bloom gave the term: he is engaged in a project of creative misinterpretation for the sake of correction, showing what his precursor should have said if the latter had not been limited by his historical

context. Fittingly borrowing a term from Lucretius, Bloom calls such misreading *clinamen*, as the influenced successor unconsciously “swerves” away from the predecessor’s true position.<sup>5</sup>

On the level of historical methodology, Nail’s justification for the view that there’s a consistency between Lucretius and contemporary physics hinges on arguments developed in *Being and Motion*—according to which, as the present changes, it changes the lines of the past that “lead to it.” This perspective would seem to justify a certain kind of teleological ‘Whig history’ or an approach to the past in terms of the present toward which it develops. But Nail disavows such teleology and tends to downplay his own agency in constructing the history of ideas, as if this is something that the ‘present’ has already accomplished and to which he is merely sensitive. The trouble with his historical methodology is not so much that it approaches the past in terms of the present, but that it does so in an internally inconsistent way. Nail might have found more consistent methodological alternatives in the work of two precursors whose readings of Lucretius he admires, Michel Serres and Gilles Deleuze.

In this paper I interrogate Nail’s interpretation of ancient materialist ontology. My main focus is, therefore, his first book on Lucretius rather than its follow-up, *Lucretius II: An Ethics of Motion*—though both Nail and Lucretius see the subjects as intimately connected (LEM 90–91). Nor do I wish to give the impression, on account of this strategic focus, that I take Epicureanism or ancient materialism to be reducible to atomism or to ontology. To single out the existence of indestructible particles as the only or most important dimension of a rich philosophical tradition, or the singular aspect of it that exerted an influence on the later history of philosophy, would be to oversimplify.<sup>6</sup> *Lucretius I* contains representative examples of Nail’s flawed close readings as well as straightforward statements of what his historical methodology is in danger of committing itself to. The close readings in *Lucretius II* are no less questionable, though the second volume does nuance Nail’s claims about methodology, as I shall explain below, while reaffirming the presentism of Nail’s history of philosophy. The second volume also contains the strongest evidence for Nail being a Bloomian “strong reader” of Lucretius.

## ANCIENT AND MODERN ATOMISM

Nail’s reading of Lucretius begins as a reaction to Stephen Greenblatt’s celebration of *De Rerum Natura* as a watershed for Early Modern science. In *Lucretius I*, Nail

accepts the narrative of the “atomic revolution” that resulted from the Florentine “rediscovery” of Lucretius’s poem in 1417 (LOM 6–8).<sup>7</sup> Its sequel, *Lucretius II: An Ethics of Motion*, however, endorses the view of Pierre Vesperini<sup>8</sup> that this narrative is a “myth” to be busted (LEM 212). In either case, for Nail the problem with Greenblatt’s interpretation and others like it is that they have been too successful. They have overdetermined our encounter with *De Rerum Natura* today, so that the poem reads like a relic of the “absolutely outdated” scientific paradigm of Early Modern materialism, which the quantum age has shown to be “fundamentally mistaken about the nature of reality” (LOM 2–3). Nail thinks that the success and prestige of “modern atomism” have dulled our sensitivity to authentically Lucretian materialism. Summarizing his intervention, Nail writes the following:

The argument of this book is that another Lucretius is possible beneath the rubble of its [*sic*] modern interpretation. In light of contemporary physics it is possible to return to Lucretius and find in his work fresh philosophical insights that provide a poetic and theoretical coherence to the philosophical and scientific discoveries of *our time*. (LOM 4)

Two things are noteworthy about this statement. First, it implies that the dynamic of Nail’s reading is primarily to move *forward*, from the modern version of atomist materialism to contemporary quantum physics, and not *back* from Early Modern atomism to Lucretius’s ancient context. The version of atomism with which Nail polemicizes—for example, when he writes that “this book defiantly and systematically maintains the controversial thesis that there are no discrete atoms or anything like them in Lucretius” (LOM 13)—is the materialism of Gassendi, Galileo, Hobbes, and so on.<sup>9</sup> Ancient atomism is, however, something quite different. To take the most dramatic illustration, Gassendi combined the existence of material atoms with the creationism of Plato’s *Timaeus*, which was more palatable than Epicurean cosmology to a Christian worldview,<sup>10</sup> even though the *Timaeus* was the object of Epicurus’s and probably Lucretius’s direct polemic.<sup>11</sup>

Partly because of the challenge ancient atomism posed to divine providence and creationism, Greenblatt calls it a “dazzling speculation” which needed to wait two thousand years for “empirical proof.”<sup>12</sup> In doing so, he not only collapses the considerable differences between ancient and modern atomism but also commits to the “myth of the man ahead of his time,” neglecting the actual ancient contexts in which what Lucretius wrote acquires its meaning and consistency.<sup>13</sup> However much Nail distances himself from Greenblatt, by not restoring *De Rerum Natura* to its classical context, Nail doubles down on this myth: Lucretius stated

the first law of thermodynamics over a thousand years before its experimental confirmation (LOM 79), and “contemporary physics is ... not moving farther away from Lucretian materialism, but only just now approaching it” (157). For Nail, Lucretius is “our contemporary” (271), a man even more ahead of his time than Greenblatt dared to dream. Nail’s way of affirming the myth is to say that Lucretius’s work is “absolutely original” (12). It doesn’t just translate Epicurean physics into Latin but *transforms* it by rejecting the existence of atoms and attempting to explain such packets of relative, regional stasis as the products of indeterminate matter in motion (LOM 5, 11; BM 33, 46; LEM xi). Of course, the question of to what extent Lucretius diverges from Epicurus is *the* scholarly issue, the eponymous “Lucretian question.”<sup>14</sup> For many scholars, however, answering it involves placing Lucretius carefully in the ancient literary and philosophical contexts to which he is most likely responding.<sup>15</sup> Since Nail does not aim to do so in *Lucretius I*, his insistence on Lucretius’s originality functions as a screen for this decontextualization, an alibi for the myth of the man ahead of his time.

Secondly, it is worth noting that in the passage quoted Nail claims only a possibility. It’s possible to see something other than modern scientific atomism in Lucretius’s text, something more consistent with contemporary physics and quantum field theory (LOM 13–14). To say that “another Lucretius is possible” does not necessarily imply that the reading of *De Rerum Natura* that follows is supposed to be fair, accurate, or actually correct. Nevertheless, Nail is committed to this view. He indicates as much by his method of close reading and especially his insistence on careful translation from Latin, lest carelessness with technical terms obscure and distort “Lucretius’ original ideas” (12). Nail especially worries that some translations project the translator’s looked-for atomism onto a text where it doesn’t belong:

The English translations ‘atom’, ‘particle’, and others have all been added to the text based on a particular historical interpretation of it. The idea that Lucretius subscribed to a world of discrete particles called atoms is therefore both a projection of Epicurus, who used the Greek word *atomos*, and a retroaction of modern scientific mechanism on to *De Rerum Natura*.  
(11)

Other translations are apparently plagued by a double “bias” (BM 33), simultaneously sympathetic to ancient and modern atomism, although Nail offers no discussion of the ancient variety. Nail implies most directly that his interpretation of Lucretius is correct when he claims that “to believe otherwise

[than that Lucretius rejected atomism] is to distort the original meanings of the Latin text” (LOM 11). Whereas other readers either project or retroject atomic preconceptions onto Lucretius, only Nail has uncovered the “original meanings” of the poet’s words, which he tends to associate naively with their etymologies. In combination with his claim that “another Lucretius” is now possible “in light of contemporary physics,” this posture suggests that Nail wants to have his cake and eat it too: to read Lucretius asymmetrically forward into contemporary physics and not back into the ancient Mediterranean world, while at the same time pretending to a linguistic access to the originary, ancient sense of Lucretian materialism.

Nail contrasts his interpretation of Lucretius with the competing “misinterpretation” (LOM 168) of the modern atomists and their champion Greenblatt, a “mistaken” reading (272), which he dramatically says does “violence” to the text of *De Rerum Natura* (130). But Nail’s anti-atomist reading of the poem is demonstrably violent in its pervasive tendency to misconstrue and often ignore the way that Lucretius actually puts words together—that is, his grammar and syntax. In the first instance this interpretation of Lucretius fails to convince, not just on the authority of all the historians, philosophers, and classicists who read Lucretius back into the ancient world, but in terms of its own commitment to rigorous close reading and fine-grained matters of Latin translation.

## CLOSE READING AND TRANSLATION 1: LATIN VOCABULARY

The problems with Nail’s close readings and claims about translation are widespread throughout *Lucretius I* and *II*. It would be time-consuming and unnecessary to catalogue them all. Instead I will examine first how Nail uses Lucretius’s Latin vocabulary as evidence for his anti-atomic reading, and what this suggests about Nail’s preferences in translation. Then I will focus on several representative examples of Nail’s flawed close readings. Some readers may find this section and the next excessively meticulous or even nitpicking, but the level of detail is required to show how exactly Nail’s philological and grammatical errors hoist him on his own petard.

Nail’s most *prima facie* compelling argument for the view that Lucretius was not an atomist is that the latter doesn’t use the word *atom*: “although the Latin word *atomus* (smallest particle) was available to Lucretius to use in his poem, he intentionally *did not use it*, nor did he use the Latin word *particula* or particle to describe matter” (LOM 11, cf. 23, 53; BM 33; LEM x, 9). We can only speculate

about Lucretius's intention, but to an extent Nail is correct: Lucretius doesn't use the transliteration "*atomus*."

The question of its availability to him is more complex. Lucretius's contemporary Cicero certainly used that word to refer to Epicurean atoms,<sup>16</sup> but perhaps only after Lucretius's death in the 50s BCE.<sup>17</sup> An extant fragment of the Roman satirist Gaius Lucilius, who lived in the previous century, refers to the "*atomus ... Epicuri*," so it is indeed possible that Lucretius could've used the transliterated word without doing so in an unprecedented way.<sup>18</sup> However, there is no reason to assume that transliterating Epicurean terminology was a widespread practice. Cicero tells us that another Roman Epicurean, Amafinius, rendered Epicurus's word "*atomos*" in Latin as *corpusculum* ("tiny body").<sup>19</sup> Lucretius also uses that translation, although sparingly (DRN 2.153, 529, 4.199, 899, 6.1063).<sup>20</sup> And, indeed, many of the words Lucretius uses to refer to what is ontologically fundamental, unchanging and undivided—*corpora* ("bodies"), *semina* ("seeds"), *primordia* ("first-beginnings")—seem to be translations, but not transliterations, of Greek equivalents for *atomos* in the extant writings of Epicurus: *σώματα*, *σπέρματα*, and *ἄρχαι*.<sup>21</sup> Even so, there is also no reason to assume that Lucretius's practice of dealing with Greek terminology was limited to finding an exactly equivalent technical term in Latin. His choice of words often has a metaphorical, poetic rationale. For example, the Lucretian descriptions of what is ontologically fundamental that do not have obvious Epicurean models—namely, *materia/materies* ("matter") and *genitalia* ("creative" or "fruitful entities")<sup>22</sup>—do not signal the smallness or indivisibility of the first bodies but their generative power, metaphorically linked to sex and procreation.<sup>23</sup> Nail himself emphasizes this aspect of Lucretius's terminology (LOM 23–24).

As for the word "*particula*," Nail is wrong; Lucretius does use it as a term for first bodies, though he does so infrequently (as with "*corpusculum*") and mainly in the later books of *De Rerum Natura*, which Nail does not treat in *Lucretius I*. For example, when Lucretius describes how a series of ultrafine films of atoms (*simulacra*) can penetrate the body and affect the mind in sleep, appearing in sequence and simulating the movement of a living being, he adds that we shouldn't marvel at this phenomenon because "so great is the quantity of particles [*copia particularum*] in any single moment of sensation" (DRN 4.775–776). He also describes the *particulae* of the mind and spirit being dispersed throughout the animate body (3.708) and the insensible particles of the wind (4.260).<sup>24</sup>

Nail's flagship argument, based on Lucretius's use (or non-use) of words, is

therefore far from being decisive evidence that the latter is wildly original with respect to Epicurus and that, specifically, he rejects the existence of smallest particles or indivisible bodies. As the saying goes, absence of evidence (Lucretius doesn't say "atom") is not evidence of absence. Nail's argument has the form of an appeal to ignorance: we don't *know* that Lucretius was an atomist, or we have no evidence that he was (because, supposedly, he doesn't say so); therefore, he was *not* an atomist. A closer look at Latin atomic vocabulary and translation practices shows, however, that we are not perhaps as ignorant of Lucretius's references to atoms as we might seem.

Arguments from ignorance are often thought to flirt with fallacy, especially when they shift the burden of proof—like when I conclude that ghosts exist because I have found no evidence that they do not, even though the burden is on me to do the demonstration. But *argumenta ad ignorantiam* are not necessarily fallacious. They produce quite reasonable results in some legal, scientific, and scholarly contexts. Take, for example, an historian's argument *ex silentio*, which leads from a lack of evidence of, say, a certain practice to the conclusion that such a practice did not occur in a certain culture at a certain time. It is arguably nonfallacious—so long as the historian's conclusion is based only partly on ignorance and also partly on the positive knowledge, resulting from diligent and serious inquiry, that if such a practice occurred she would've found evidence of it.<sup>25</sup> Whether or not Nail's appeal is fallacious would seem therefore to turn on the diligence and skill of his research in the history of philosophy and knowledge of the relevant ancient context. To his credit, Nail doesn't seem to combine this style of reasoning with a desire to shift the burden of proof, which he willingly shoulders, devoting long passages to paying close attention to what Lucretius has written and attempting to show that it fits his construal better than the atomic one. Unfortunately, very little (if any) of this evidence is persuasive, as I shall argue.

Nail makes a similar argument about the appearance of the word "property" in translations of *De Rerum Natura*. Lucretius's words "*coniuncta*" and "*eventa*" are conventionally translated as the "properties" and "accidents" of atoms and the void (DRN 1.449–450). Nail doesn't approve of this convention: "The English translation of *coniuncta* [*sic*] as 'properties' ... refers less to the original Latin meaning, its historical usage, and Lucretius' philosophy, than to a projection of the Anglo-empiricist tradition of primary and secondary qualities on to the poem" (LOM 101). Lucretius's original meaning, he continues, is better captured by the etymologically much closer words "conjunctions" and "events." In fact, Nail says, just as Lucretius could've used the word "*atomus*" if that's what he had meant, so

too he could've used the Latin word "*proprietates*" if he had meant "properties" (101). As it happens, like *atomus*, this word in this sense is not well attested in Latin philosophical contexts before Cicero, who only uses it in that way once.<sup>26</sup> But rather than delve further into philology, I want to make some observations about what these two appeals jointly suggest about Nail's preferences in Latin translation.

First, in relation to both *atomus* and *proprietates*, Nail resists the idea that Lucretius is "simply" translating Epicurus (LOM 11) or existing Greek philosophical vocabulary into Latin. On the assumption that Lucretius is no Epicurean fundamentalist but an "absolutely original" thinker (LOM 12), he cannot mean by "*corpora*" what Epicurus did by "*ἄτομοι*," but rather a flow of matter that is not divisible into internally static movers (11). Likewise, "*coniuncta*" and "*eventa*" are not intended to capture concepts Epicurus had already developed, but the brand-new notions, which Nail will later revitalize, of "event" (an intersection between two or more corporeal flows: LOM 109; cf. BM 72) and "conjunction" (the connection between two or more flows that intersect with themselves, which Nail calls "folds": LOM 106; cf. BM 99–101, LEM 72).

Second, Nail tends to proceed as if the "original meaning" of a term is best captured with a cognate, a word with the same historical derivation. The truest translation of *coniuncta* is "conjunction," as if there is no danger here of being misled by what linguists call "false friends." Even in languages more closely related than English and Latin, words with the same etymology don't necessarily carry the same meaning: the French word *grand* doesn't mean grand, nor *journée*, journey. Nail dubiously assumes that if Lucretius had meant (what we English-speakers understand by) "property," he would've used its Latin cognate.

However, Nail is also inconsistent with this preference. For example, he seems to have no problem with the translation of Lucretius's word "*inane*" as "void" (LOM 89–90), even though there's no etymological connection between either the English and Latin words, or the Latin word and Greek original, "*τὸ κενόν*." The inconsistency is no doubt due to the fact that the English false friend "*inane*" doesn't seem to apply in this case. Similarly, Nail avoids the cognate translation when it doesn't suit his argument. For example, he consistently translates Lucretius's word *solidus* as "continuous" (sometimes, to be fair, as "continuous and solid") (121ff.), even though the English cognate would be completely appropriate. In fact, "solid" is widely used in translations of *De Rerum Natura*, including Walter Englert's,<sup>27</sup> on which Nail relies but modifies on this point (121, 125). He does so

because he wants to maintain that Lucretius's kinetic flows are continuous in the sense of not being divisible into solid bodies (or atoms) that flow, the continuity of flow being one of the "fundamental conditions" of the ontology of motion that Lucretius anticipates (BM 56).

Nail probably doesn't worry about the semantic complications introduced by "false friends," because he associates the pursuit of the "original meanings" of Lucretius's words with finding their etymologies. The goal of Nail's etymologizing appears to be to reveal the kinetic basis of words' abstract meanings: for example, the Sanskrit cognate of the Latin word *inane* ("void") connotes "spilling out," and the Greek word from which *spatium* ("space") is derived can mean "racetrack" (LOM 90). On this procedure, however, you might as well conclude that the original meaning of "*ournée*" is not "day" but "trip" because that is its cognate's sense in a related language.

While some of Nail's etymologies are quite conventional, like his derivation of "*atomos*" from *temnō* ("to cut") with a privative prefix (11), others can be dubiously relevant window-dressing, such as when he tells us that *ianua* ("door") comes from the Proto-Indo-European root "*\*ei-*, to go" (166), or downright false. For example, Nail associates the dancing (*chorea* in Latin: DRN 2.635) of the Curetes with Plato's famous "*chora*" (LOM 240), but this conflates the two Greek words *χορεία* and *χώρα*, distinguished orthographically by an omicron and an omega, which is invisible in some transliterations.<sup>28</sup>

## CLOSE READING AND TRANSLATION 2: GRAMMAR

Problems with etymology and Latin vocabulary are vastly outnumbered, however, by Nail's errors of grammar and resulting mistranslations. Many are relatively innocent: for example, Nail consistently mistakes the number of nouns (that is, whether they are singular or plural), treating the plurals *corpora* (LOM 12), *lumina* (31), *foramina* (91), *intervallis* (183), *pondera* (191), *foedera* (204), and *rerum* (56) as if they were singular, and the singular forms *semine* (74–75, 233) and *corpore* (121, 177) as if they were plural. Similarly, he confuses different kinds of inflection, writing that "the word *moenera* is a conjugation of the Latin word *munus*" (39), but meaning to say that it's a declension or a declined form (the nominative plural) of the noun *munus*, since "conjugation" is something only verbs do (cf. 53, 263). These are not especially big problems for Nail's interpretation, but it is quite ironic that the author of a book on Lucretius doesn't evince an understanding of how words *decline*.

Much more worrying are cases where the grammatical misunderstandings in Nail's close readings undercut the conclusions he wishes to draw from them. Let's take as our first example the invocation of Venus at the beginning of *De Rerum Natura*, which Nail treats as introducing the concept of a material flow that has nothing to do with atoms (LOM 21). After discussing the mythological background for the image of the birth of Venus at the seashore and the etymological connection between the Greek name Aphrodite and the word for sea-foam (ἀφρός), Nail quotes a few lines of Lucretius (30):

... caeli subter labentia signa  
quae mare navigerum, quae terras frugiferentis  
concelebras, per te quoniam genus omne animantum  
concipitur visitque exortum lumina solis:

it is you [Venus] who beneath the falling stars  
of heaven makes the ship-bearing sea and fruitful earth  
teem with life, since through you the whole race of living creatures  
is conceived, born, and gazes on the light of the sun (DRN 1.2–5, Englert's  
translation)

Nail picks up allusions here to the four Empedoclean elements—air, water, earth and fire—as others have done.<sup>29</sup> But he places this observation in the context of his interpretation (based on no evidence and a very weak argument) of Venus as an “immanent” god, “identical” to the self-generation or ontogenesis of the world (LOM 22).

The putative immanence of Venus makes Lucretius sound like a quasi-Spinozist pantheist, a position more in line with the Stoic view of Zeus, against which Lucretius may actually have been reacting, than Epicurean theology.<sup>30</sup> According to the latter, the gods exist but have no influence on human or worldly affairs, so what is “provocative” about the proem is not that this is an “atheistic” text that begins by referring to a god, as Nail claims (LOM 22), but that it asks Venus to intervene in human affairs by making wars cease (DRN 1.29–30). In fact, Epicurean gods exist, precisely, in a *transcendent* way. Interpreters debate whether the gods are supposed to transcend our world physically, living in bliss in the so-called *intermundia* or spaces between worlds, or to exist transcendentally in a quasi-Kantian sense, as innate regulative ideas or “thought constructs” of tranquil moral exemplars.<sup>31</sup>

Nail's argument for the immanentist view of Venus is that Lucretius's invocation "cannot be praise of a transcendent god beyond nature, since there is nothing beyond the materiality of nature itself." Thus Venus "must be" immanent and identical to this world (LOM 22). But the implicit conflation of "this world" and "nature" rules out the genuinely Epicurean view. Nail collapses the Epicurean distinction between "world" (*mundus* or *terra* in Lucretius and *κόσμος* in Epicurus), of which there are many, and the infinite universe (*omne, πᾶν*: literally, the "all") (D.L. 10.41; DRN 2.1049–1050). When Nail turns to consider Lucretius's presentation of the multiplicity of worlds (starting at DRN 2.1048), he explicitly conflates the two: "If there were only one world, then the *corpora* would only be potentially creative .... Therefore, there must be infinite actual, but non-intersecting universes" (LOM 262).

The question of how the invocation of Venus could be made consistent with Epicurean theology has, of course, vexed many interpreters. But there are literary issues, in addition to philosophical ones, to consider. For example, Lucretius could be reviving an older style of didactic poetry or imitating the epic genre;<sup>32</sup> the proem might be a direct imitation of Empedocles's philosophical poem, which could've begun with an address to Aphrodite;<sup>33</sup> or it might make sense in the context of the contemporary Latin literary scene.<sup>34</sup> One might expect, as Nail does, a philosophical work to begin with first principles, but we should not forget that Lucretius is writing poetry, not *more geometrico*. *Lucretius II* marks a big improvement over *Lucretius I* in this respect. The second volume is much more sensitive to the poetic dimensions of *De Rerum Natura*, in particular its convergences with Empedocles and Homer, and Nail treats the "becoming Homer of Epicurus" as the source of Lucretius's originality (LEM x; cf. 18, 78–80, 102–103).

Crucially, in relation to the passage quoted from the proem to Book I of *De Rerum Natura*, Nail supports his view that the "elemental flows" of air, water, earth, and fire are identical to "Venus as ontogenesis" by misconstruing, or perhaps ignoring, the grammar of the Latin text. For example, Venus is said to make the earth and sea teem with life "beneath the gliding signs of heaven [i.e., the constellations]" (*subter labentia signa caeli*), but Nail explains that Lucretius means to say Venus is "constituted by the *labentia signa*" (LOM 30), ignoring the preposition "*subter*" and acting as if "*signa*" were in apposition or grammatical agreement with "*Venus*" in the same line (and "*quae*," "who," in the next one). The word "*subter*" can be used as an adverb, and so, at a stretch, Nail may be assuming that the phrase in question means "lifegiving Venus, [who are] the constellations of heaven gliding

below, who make the sea and earth teem with life ... [etc.]" But if Nail prefers this *lectio difficilior*, he ought to have been more explicit about it—for example, by modifying Englert's translation.

The verb "*concelebras*" in line four could provide support for Nail's immanentist construal—although he does not emphasize this, probably because Englert translates the word "you make to teem with life." It could also be rendered "you pervade,"<sup>35</sup> and Rouse and Smith's "you fill [the earth and sea] with yourself" has an even more pantheistic ring. But the sense could be, more straightforwardly, that Venus *visits* or *frequents* the earth and sea. There is also probably the implication that these visits explain why the earth is so "fruitful"—Venus's erotic proximity encourages animals and plants to reproduce—in light of what follows: "through you every kind of living thing is conceived and, once born, gazes at the light of the sun." Nail handles this passage in much the same way as the one about *labentia signa*. Ignoring the reference to living things, he writes that for Lucretius, "She [Venus] is ... the *concupitur* (1.5) that 'takes in' to herself ... she is the *exortum* (1.5) that 'comes out' ... and she is the *visitque* (1.5) that 'comes out to look' back upon the light" (LOM 31). It is not clear what the words in Nail's quotation marks refer to—perhaps to some etymological background that highlights the kinetic connotations of the Latin verbs. It is clear, though, that Nail's sentence treats all the words as if they were in apposition with or referred to "Venus" and completely suppresses their grammar, which, once restored, casts doubt on his reading. For one thing, none of the Latin words predicated of Venus is a noun or adjective (*exortum*, a past participle, comes closest, since it could be read adjectivally), and for another, they all refer, not to Venus, but to *genus animantum* ("kind of living things").

This opening close reading is representative of the degree of misprision in the rest of Nail's books. A similarly fundamental case of grammatical obliviousness threatens to undermine another pillar of its argument. Nail attributes great importance to the conceptual and terminological distinction between Lucretius's words for matter in motion—such as *corpora*, *primordia*, and *semina*—and his word for "things," *res*. Supposedly "even some of the best translations" fail to mark it, which is one reason why the atomist misinterpretation of Lucretius is widespread (LOM 13): translators and readers erroneously attribute to *corpora* the qualities of *res*, such as their discreteness, observability and causal power. When he comes to demonstrate the distinction, however, Nail writes the following:

The difference between *rerum* and *primordia rerum* is thus one of the most

crucial terminological distinctions in the whole text, and we should take care never to conflate them .... For example, when Lucretius uses the word *rerum* alone without any conditional modifiers such as *semina*, *corpora*, or *primordia rerum*, he is describing *rerum* as they appear as seemingly discrete ‘things’. However, when he directly modifies the word *rerum* as with *semina rerum* (1.58), *corpora rebus* (1.196), or *rerum primordia* (1.55) ... he is describing the active material conditions for the ordering and production of seemingly discrete things. (LOM 54)

While the conceptual distinction is clear enough, its grammatical defense is flimsy. The words *corpora*, *semina* and *primordia* are not, as Nail says, modifying *res*. In fact, the opposite is true: *res* in the genitive plural (*rerum*) is acting as an attributive noun modifying *semina* and *primordia*. The grammatical relationship between *corpora* and *rebus* in the second example Nail cites is more complicated, a fact obscured by Nail’s decontextualizing. The words originate in the phrase “*multis communia corpora rebus / multa*,” meaning “many bodies [*corpora*] common to many things [*rebus*].” The adjective *communia*, which agrees with *corpora* in the accusative plural, frequently completes its meaning with the dative case—here, *rebus*. Nail’s failure to grasp the relationships between the terms he thinks it is so crucial to disambiguate does not inspire confidence that he can do so.

Moreover, Nail seems to concede that Lucretius uses the word “*res*” to refer to both discrete empirical bodies and their material constituents, which is true but not in the passage he is referring to (DRN 1.53–61). Elsewhere Lucretius states that the nature of the universe consists of two “things” (*duabus rebus*), namely *corpora* and *inane* (bodies and void) (1.420). Thus “*res*” can indeed refer to *corpus*, as Nail intuitively. As for the claim that scholars and translators have failed to keep the crucial distinction in mind, Nail provides no source or example, and it’s hard to believe the generalization is true, since the terminological issue seemed crystal clear to Katherine Reiley over a hundred years ago: Lucretius “chose *primordia* as his technical term ... to be the begetting elements of the *res*.”<sup>36</sup> Moreover, as Reiley also already pointed out, Lucretius also uses the word “*corpus*” (like “*res*”) in a “lay” or nontechnical sense.<sup>37</sup> For example, he describes how cows “set down their bodies [*corpora deponunt*]” in meadows (DRN 1.258). So, in fact, it is “*corpus*” and not “*res*” that usually needs some kind of qualification in order to refer to atoms (or, by hypothesis, material flows): *corpora prima* (1.61), *genitalia corpora* (1.167), and so on.

The least we can say is that upon inspection the terminological distinction is not

as strict as Nail supposes. He actually quotes and close reads one passage in which this is apparent: Lucretius says that bodies (*corpora*) consist partly of *primordia rerum*, that is, atoms (or flows), and partly of what stands together in an assembly (*concilio*) of those first bodies—namely, *res* or discrete visible things (DRN 1.483–484). Nail musters only a one-sentence commentary on these lines, which misreads them as a general statement about “things” rather than “bodies” (LOM 117). He gives understandably short shrift to a passage that looks to undermine, on the one hand, the equivalence of *corpora* and *primordia* and, on the other, the supposedly crucial terminological distinction between *corpus* and *res*.

There are many other examples of Nail’s close readings falling into error as the result of a misapprehension about the relations between Latin words. Two of the most striking appear in his comments on Book 2 of *De Rerum Natura*. Here Lucretius infamously presents the “swerve” (*clinamen*) as an explanation for motions in animals that are not determined by the sequence of past motions (DRN 2.251–262). Nail states that in this context “Lucretius does not use the term *libre* [*sic*] *voluntas* or ‘free will’, as some have translated it” (LOM 197). In fact, Lucretius does use the word *libera* (“free”) as a modifier for *voluntas*. The adjective appears at the beginning of line 256, which Nail even reproduces, apparently without noticing it. The separation of the adjective by almost two lines from the noun it modifies may have given Nail the false impression of its absence. Later, in the context of interpreting the descriptions of the worship of Cybele (DRN 2.600–660), Nail asserts that Lucretius’s mythological name for the process of morphogenesis is “*mater materque*,” words excised from 2.598 which Nail interprets to mean “Mother Earth, the Great Mother, the Mother of Mothers, the Mothering Mother” (LOM 233). While “Great Mother” is correct in context, the last two epithets are the result of grammatical misunderstanding. The Latin says “*magna deum mater materque ferarum*,” meaning “the great mother of the gods and mother of the beasts.” The word “*mater*” is repeated, but Nail seems to have misconstrued the fact that the repeated words are right next to each other to imply a grammatical relationship that isn’t there. Perhaps the phrasing reminded him of Spinoza’s “*natura naturans*” and resonated with his pantheistic interpretation of Venus. In the case of Cybele, however, the two repetitions of “*mater*” are only in apposition and are modified by distinct genitives (“*deum*” and “*ferarum*,” respectively) in two different phrases coordinated by the enclitic “*-que*.” Considering Nail’s tendency in reading the proem to treat every word as if it were in apposition with “Venus,” the failure to grasp the same relationship here is striking.

Nail's close readings do not dramatically improve in *Lucretius II*. For example, commenting on another proem, the eulogy of Epicurus that opens Book 3, Nail offers a rather tendentious reading of the phrase "*commoda vitae*" (DRN 3.2) to support the claim that Lucretius turns at this point to a consideration of the "conditions for ethical life." Nail etymologizes "*commoda*" ("benefits" or "advantages") as a "composite of *com*, 'together', and *moda*, 'way or method'" which renders a "collective way of life or set of actions" (LEM 17). A better translation, however, would be "blessings of life" (Rouse and Smith) or simply "gifts of life"—since *commoda* comes from the verb "*commodo*," not from a reference to "*moda*" (there is no such Latin word, though Nail may be thinking of *modus*). "*Commodo*" means "to give," especially to "give something for someone's convenience." The verb can also mean "to adapt" in the sense of to give what is fit or appropriate. The sense of the phrase is, then, that life gives things that are fit for our existence and/or convenient or pleasurable to us (and this is what Epicurus discovered). In the same context, Lucretius describes his own relation to Epicurus. Nail rightly notes that Lucretius says he doesn't desire so much to compete with Epicurus ("*non ita certandi cupidus*") (DRN 3.5), but he takes the adjective "*cupidus*" not as governing the genitive gerund "*certandi*" ("desirous of competing"), but as taking the infinitive "*imitari*" ("to imitate") in the next line, which is in fact the complementary infinitive of "*aveo*" ("I desire") (LEM 19). Then, in a tortured argument Nail construes Lucretius's "desire to imitate" Epicurus as providing evidence for Lucretius's doing something novel and attempts to deal with the verb "*imitari*" in a way that avoids any reference to the Platonic relationship between model and copy—on the one hand, by noting that "*imitari*" can sometimes mean "to counterfeit," which is fine, and on the other, by introducing some irrelevant discussion of the "rhetorical term *copia*," which in Latin can mean "source material." The word "*copia*," however, does not appear in the passage Nail is commenting on. Presumably he discusses it because it is cognate with the English word "copy."

It would be churlish to multiply examples beyond necessity, but I would like to examine one more case, returning to Nail's discussion of Lucretius's "theory of the event" (*eventum*). This passage is worth treating last, since it is the only one in *Lucretius I* in which Nail refers directly to Lucretius's grammar. He claims that for Lucretius the event has a "very specific temporal structure" (LOM 115). It occurs as a "convergence of futurity and historicity," which you can tell because in Lucretius's description of the Trojan War (DRN 1.470) he uses "the third person future anterior of [the verb] *possum*, '*poterit*'" (LOM 115). In fact, "*poterit*" is just the ordinary future indicative tense. In Lucretius's line it is joined by the

complementary infinitive *dici* (“to be called”). Lucretius is saying that a thing that happens will be able to be called (“*poterit dici*”) an event or accident “of” a certain land or region. Now, there *is* a “future anterior” in the sentence Nail quotes—that is, a verb in the future perfect passive tense—but it is “*erit actum*” in the phrase “whatever will have been done,” and not the verb form that he singles out. So even though Nail has put his finger on something about how Lucretius describes the temporality of historical events, he is not sure where exactly it is grammatically. The one close reading that calls attention to the actual grammar of Lucretius’s Latin gets it wrong.

Nail’s posture of uncovering the “original meanings” of the Latin language and modifying the translations of *De Rerum Natura* on this basis will be unconvincing to anyone who can read Latin for themselves—whether or not they have imported assumptions about “Lucretius the atomist,” as Nail fears (LOM 12). Interestingly, Nail retreats from his earlier bold statements about “original meanings” in *Lucretius II*. The latter volume is more nuanced about its historical method and more cognizant of the transformations to which the text of *De Rerum Natura* is being subjected. Here Nail emphasizes that “texts are not static things with fixed meanings determined by author or reception. ... Every reading of a text is an event or process of collective creation between a variety of processes, including author, reader, text, geography, and history” (LEM 8). Thus, Nail’s own books are “not an attempt to fix an absolute meaning to Lucretius forever and all time” (8), since “no one ... can be ‘the last word’ on the meaning of *De Rerum Natura*” (9). Moreover, just as Lucretius’s translation of Epicurus into Latin “actively makes something new and perhaps monstrous inside Epicurus that goes well beyond authorial intention,” so also Nail’s interpretation of Lucretius makes something “monstrous” that goes “beyond” what Lucretius himself might have intended or recognized: “There is no translation that is not also a transformation. This is true both of Lucretius’ reading of Epicurus and my reading of Lucretius, translating from Latin to English” (LEM 9–10). Shifting the accent from uncovering the authentic Lucretius to creating a monstrous one is a very welcome change, but a tension remains between Nail’s recognition that he is transforming the meaning of Lucretius poem, rather than rediscovering its original form, and other assertions in *Lucretius II*—for example, about how close reading remains a crucial dimension of his methodology: “The purpose of this method is to show systematically and textually, not just argumentatively, that Lucretius had an ethics of motion” (9), which it is hard not to read as a claim about what Lucretius really thought or intended. Likewise, the Preface to *Lucretius II* reiterates the metaphor of “unearthing” or rediscovering the “hidden Lucretius buried beneath

the paving stones of Greek atomism,” whom Nail discovered after turning to the original Latin poem and discovering what had “been left out of translations and interpretations” (LEM ix; cf. LOM 4). These remarks suggest that Nail hasn’t entirely abandoned the posture of accessing the original or authentic sense of Lucretius’s language, despite the many flaws in his books’ close readings of it.

*Lucretius II* also unambiguously indicates that Nail’s *Lucretius* is a creature less of attentiveness to the text of *De Rerum Natura* (let alone the ancient philosophical and literary contexts in which it was written) and more of a very peculiar species of what Harold Bloom called the “anxiety of influence.” Bloom appropriates the Lucretian *clinamen* in order to theorize how poets construct and locate themselves within literary traditions (although the point is generalizable to other kinds of intellectual tradition) while simultaneously creating the conditions for novelty and innovation: as a “Poetic Father” casts a long shadow on his, so to speak, descendants, the strong among them will react by “swerving” away.<sup>38</sup> Far from simply trying to evade the predecessor’s influence, however, the swerve of a “strong poet” involves recasting or reinterpreting it: “This appears as a corrective movement in his own poem, which implies that the precursor poem went accurately up to a certain point, but then should have swerved, precisely in the direction that the new poem moves.”<sup>39</sup> For Bloom, this movement is inevitably a *misinterpretation*, which attributes to the predecessor the features that the successor feels able to correct, whether or not they belong there. What is peculiar about Nail’s case of the anxiety of influence is that instead of showing how Lucretius himself went wrong, Nail emphasizes how “correct,” “prescient” and “accurate” the Roman poet was from the point of view of contemporary science (LOM 213–214, 231–232, 260) and displaces the “corrective movement” onto Greenblatt’s presentation of *De Rerum Natura* as the founding document for scientific modernity. Although in *Lucretius I* Nail does describe Lucretius as being limited by the state of ancient science, which explains why he resorts to mythological and naively empirical presentations of his ideas (272), it is the “modern materialists” who stand in much more need of correction: they have “abused” Lucretius’s work for five hundred years, “the poem has been treated with the same violence as nature itself was during the scientific revolution,” and the “modern interpretation of *De Rerum Natura* ... is part of a larger systematic worldview of patriarchy, rationalism, mechanism and quantification” (271).

In *Lucretius II*, Nail analogizes his own reading of Lucretius with the latter’s way of “turning” Epicurus’ philosophy ‘into [Lucretius’s] fatherly/native words’ [*in patrias qui possim vertere voces*] ([DRN] 5.337)” (LEM 10). Nail also picks up on

the *clinamen* that such words imply: “Lucretius is not just copying Epicurus; he is twisting, turning, and swerving him in new directions” (10). Then, with the help of Jane Snyder’s analysis of Lucretian puns, Nail recognizes the connections between *ver-tere* (“turning”), *ver-sus* (“verses”) and *ver-itas* (truth). Such a recognition seems to imply (although Nail himself doesn’t say so) that the Bloomian *clinamen* or turning, effected by both Lucretius’s and Nail’s anxieties of influence, produces the appearance of being able to access the “truth of” their respective poetic and philosophical forefathers—a truth to which Nail more naively appealed in *Lucretius I* in terms of Lucretius’s “original meanings.”

This framework borrowed from literary theory is particularly apt for describing Nail’s reading of Lucretius to the extent that Nail is a *revisionist* about the philosophical canon, an attitude Bloom associates with his conception of influence.<sup>40</sup> Nail prefaces his study of Lucretius by reconstructing an “underground current of materialism” that has been “systematically decimated throughout Western history” (LOM 4; cf. LEM 211–213). Even more spiritedly, *Being and Motion* sets out both to offer a conceptual framework for describing the ontological primacy of motion and also to use that framework to redescribe all previous ontologies (BM 26), periodizing the history of being into various kinetic “regimes” and showing how the main historical “names of being” could have arisen (138–139). In other words, what makes *Being and Motion* so ambitious is precisely its historical revisionism about ontology. With this in view, I can move on to this paper’s second major line of argument.

## NAIL’S HISTORICAL METHOD

In addition to his fine-grained exegetical approach to *De Rerum Natura*, Nail also makes a case for the view that there’s a strong “resonance” between Lucretius’s materialism and twenty-first century science (LOM 13–14). Nothing in the former contradicts the latter the way that atomism certainly does (273). Thus Nail shifts in the last few chapters of *Lucretius I* from primarily trying to provide linguistic or textual evidence for the latter’s authentic views to demonstrating the consistency of the views he has already established with the findings of contemporary physics—often jumping immediately (or almost immediately) from quoting Lucretius to expositing quantum field theory or other relevant science (213, 216–218, 224, 231–232, 248–249, 251–252, 264).

In the conclusion, Nail describes the relationship between these two strategies: his approach is first to show the “internal coherence” of the physical theories

presented in *De Rerum Natura* and “only afterwards to cross-check them with contemporary physics to see if there are any glaring conceptual contradictions” (272). Thus, unlike the interpretations of Lucretius that are biased by classical physics and ancient atomism, Nail’s book, he insists, is “not a projection” (272–273). He repeats the assertion twice. The first time, Nail answers the potential objection that his work is largely a projection of quantum field theory onto Lucretius with questionably relevant considerations that don’t necessarily get him off the hook: for one thing, Nail says, his book is about more than just physics (but also mythology, politics, philosophy, and so on), and for another, he is not saying that Lucretius actually *discovered* quantum mechanics (273). The second time, however, Nail answers the charge of projection with an oblique reference to the method of treating the history of ideas that *Being and Motion* develops in more detail. Similarly, in *Lucretius II*, Nail insists that, although the meaning of a text is the product of a “process of collective creation” involving author, reader, and various other agencies, “this does not mean that rereadings of texts are arbitrary, or up to the free construction of human subjects” (8). Rather, Nail appeals to an implicit distinction between constructivism and realism: each new reading exposes another “real dimension of the text,” and here as well, Nail refers to the historical ontology of *Being and Motion* to substantiate this method (LEM 12, n.8). To deal with this aspect of Nail’s reading of Lucretius, it is therefore necessary to consider how Nail constructs the history of ideas in that book.

*Being and Motion*, like Heidegger’s *Being and Time*, is divided in two. The first part, Book I, contains a theory of motion, a novel conceptual framework that transcendently deduces the three key concepts of flow, fold, and field of circulation to describe the being of motion or how motion moves (BM 11, cf. 49). It also recasts traditional ontological concepts, such as quality, quantity, relation, modality, identity, and so on, in terms of that framework. The second part, Book II, is devoted to using the perspective developed in Book I to reinterpret the history of ontology—from the Stone Age to the twentieth century—and to show how motion as an historically suppressed “name of being” is capable of redescribing the historically “dominant” names: space, eternity, force, and time. Nail does so by demonstrating that in at least four distinct periods of Western ontology, the descriptions of being (in terms of space, eternity, and so on) followed distinct “patterns” or “regimes” of motion. They are, from oldest to most recent, centripetal, centrifugal, tensional and elastic (BM 24, 132–134). These kinetic patterns were what allowed ontologists to baptize being with a name other than “motion,” and they were not simply illusions: “reality actually moved differently in each period” (139).

In other words, *Being and Motion* has a systematic half and an historical half, just as Nail's first volume on Lucretius can be divided broadly into two parts, one devoted to close reading and one to showing the trans-historical consistency between Lucretius and quantum field theory. Similarly—just as in *Lucretius I* Nail claims that he close read *De Rerum Natura* first, and only then “cross-checked” his findings with contemporary physics—in *Being and Motion* he implies that the typology of kinetic patterns developed at the end of Book I is a *result* of the historical studies in Book II, even though the order of presentation is the opposite. Nail defends this discrepancy with a quotation from Marx's Postface to the second edition of *Capital* (BM 26):

Of course the method of presentation must differ in form from that of inquiry. The latter has to appropriate the material in detail, to analyze its different forms of development and to track down their inner connection. Only after this work has been done can the real movement be appropriately presented. If this is done successfully, if the life of the subject-matter is now reflected back in the ideas, then it may appear as if we have before us an *a priori* construction.<sup>41</sup>

In other words, it only appears that Nail is using a theory of motion he has independently developed to recast or reinterpret the history of ontology. In fact, because the opposite is true, and Nail has “appropriated the material in detail” as a preliminary to any theorizing, the appearance of an “*a priori* construction” only testifies to how successfully he has done so.

This dialectical justification of an historical method might seem to support the conclusion that Nail isn't “projecting” some ideas he had in advance onto an ancient Roman poem—it would only appear that way to someone who failed to grasp the retroflex character of Nail's approach—but to me it rings hollow. The idea that Nail has first “appropriated the material in detail” before coming to any conclusions is at odds with the overall thrust of *Being and Motion*, which begins with a diagnosis of the present: “We live in an age of movement” (BM 1) and thus stand “in need of a new ontology appropriate to our time” (6). The Postface to *Capital* makes it clear that by “appropriat[ing] the material in detail” Marx means investigating the facts (of political economy) as accurately as possible, in a “realistic” or “scientific” manner, without any idealist presuppositions. In this, he says, consists the opposition between Marxist and Hegelian dialectical method.<sup>42</sup> Nail, in contrast, always presupposes the present moment, to which he claims to be responding. Of course, this is not the same as an idealist presupposition—the

approach is not reducible to Hegelianism—but in Nail’s historical dialectic the position of the *a priori* is occupied by “the present.” He is fairly explicit about it in what directly follows the quotation from Marx: “But we do not have an *a priori* construction, only a material and historical one. Only because we stand today at the relative end of this long historical process are we now able to invent concepts appropriate to the process itself” (26). The present (the moment at the end of a long historical process at which we stand) is a “material and historical construction,” or in other words a product of the history of matter in motion, which replaces the “*a priori* construction” that Marx treated as a retroactive appearance resulting from careful historical scholarship. But, if this is right, then Nail concedes too much. In fact, he has conceded the work of “appropriating the material in detail.” Nail now says, unlike Marx, that such detailed inquiry is not the method necessary to produce a presentation that looks an awful lot like a “projection” or “*a priori* construction.” In fact, he makes virtually the opposite point: all that is necessary to understand the material about which one is inquiring is to stand at the end of this historical process. Because we live in our present, in the “age of movement,” we can understand appropriately the history that brought us here. If so, then Nail’s ontology of motion in *Being and Motion* cannot be both the fruit of studious inquiry into the history of ontology and a response to the challenge of our new “kinetic paradigm” (5), as he maintains. On my reading, Nail is more committed to the latter than the former.

Studying the past on the basis of the present is basically the definition of “Whig history,” according to the term’s coiner, Herbert Butterfield. It is the “historian’s ‘pathetic fallacy’”—in other words, their tendency to see what belongs to their own situation reflected in the objects of their study. The illusion is the “result of the practice of abstracting things from their historical context and judging them apart from their context—estimating them and organising the historical story by a system of direct reference to the present,”<sup>43</sup> and it tends to generate narratives that portray (implicitly or explicitly) the present as in some sense more enlightened than the past and past events as marching toward how things are now.<sup>44</sup> If Greenblatt’s book on Lucretius is just as guilty of Whig history as it is of perpetuating the “myth of the man out of his time,”<sup>45</sup> then reading Nail’s *Lucretius* together with *Being and Motion* shows that Nail is just as willing to double down on the one as on the other.

Nail’s whiggishness in relation to the history of ontology explains some of the tensions inherent in *Being and Motion*. For example, there is an ambiguity in the text about whether the sequence of kinetic patterns is developmental or not. Nail

insists that it isn't: one name of being simply "wane[s] with the emergence of a new descriptive name that comes to explain the previous names. This does not mean that there is some developmental logic" (BM 26). He also emphasizes that, despite the chronological organization of Book II, "None of these concepts [space, eternity, force, and time] is any more advanced or developed than the others; there is no chronology, development or teleology" (143).<sup>46</sup> But such assertions conflict with other claims: for example, that centripetal motion (which was dominant in Stone Age ontology) is in some sense "basic" to the other patterns: "Without at least some centripetal motion, there can be no field of circulation in general. All the other regimes of circulation include and modulate this basic movement of the accumulation and repetition of flows" (152). They are potentially also inconsistent with Nail's careful accounts of the historical, "kinotopological" transformations of one pattern of motion into the next, which is said to presuppose it (196, 274, 369–370). Clearly Nail must admit that a kinetic pattern *develops*, in some metaphysically noncommittal sense of the word, from a prior pattern, however ateleological he would like to say this process is.

Moreover, some of Nail's formulations authorize the suspicion that the process is not, after all, very ateleological. In particular, Nail treats some historical ontologies as more or less failed approximations of the ontology of motion with the "vigilance for likenesses" that Butterfield considered typical of a Whig historian.<sup>47</sup> Nail comments on how close Hume (281), Hobbes (314), and Spinoza (316) came to advocating the primacy of motion suited to our contemporary moment, which only Lucretius, Marx, and Bergson truly anticipated (32–35). Closely approaching kinetic primacy is particularly characteristic of the ontology of time and the most recent of the big four dominant kinetic patterns, which Nail calls "elasticity." He uses this word to refer to a field of motion in which it is possible to introduce an indefinite number of subfolds between any two ordered folds in a flow (371, 373). Thanks to this unlimited subfoldability, the elastic field can be expanded and contracted in a way that European phenomenologists since Kant have described in terms of subjective time-consciousness (375–377). According to Nail, the problem with the most recent ontologists of time—namely, Derrida and Deleuze—is the way they assume that the subfoldability of time presupposes a discontinuous interval or stasis, such as an ontological gap, *différance* or difference in itself (416–419, 502 n. 48) rather than recognizing that it is continuous motion all the way down. In light of this failure of recent phenomenology to think kinetic primacy, Nail diagnoses the present again: we stand at a "threshold" between the "absolute rejection" and "absolute presupposition" of motion (420; cf. 369). Derrida, Deleuze, and the legacy of phenomenology would be on the side of the former, but

Lucretius—and in this consists his radical “contemporaneity” (LOM 1, 271)—on the side of the latter, since Lucretius had already supposedly shown that “every fold contains and is contained by at least one other fold in an infinity of larger and smaller infinities” (LOM 130).

Nail might defend himself against the charge that there’s an inconsistency between his anti-developmentalism about ontological regimes and his tendency to evaluate past philosophies in the light of the present state of knowledge by pointing to his conception of the relation between the past and the present. In *Being and Motion* Nail writes:

The past is not an objective set of fixed events. Depending on the conditions of the present [itself described as an “open process”], different aspects or dimensions of the past will appear and disappear. ... As the present changes ... so do the lines of the past that lead to it. This does not mean that history is illusory and false but rather that it is composed of multiple real coexisting and divergent historical series. (14–15)

In fact, I think this is precisely the relationship between past and future that Nail refers to in the *Lucretius* volumes to head off the charge that he’s “projecting” quantum physics onto *De Rerum Natura* or rereading the text in an “arbitrary” way. His study of Lucretius is the “unfolding of a dimension of the past which had always been there but has remained hidden until the present” (LOM 273; cf. LEM 8), and this is possible because “every new epoch changes the conditions in which the past is understood—new lines and new legacies are drawn up constantly” (LOM 13). In particular, because we exist in this present, this “age of movement,” we can now see Lucretius as an “important precursor” to the ontology of motion (BM 32). And thanks to our knowledge of contemporary physics, we can see how Lucretius’s poem has been so long “misunderstood” (LOM 271).

But such a conception of the relationship between past and present does not so much defuse the charge of Whig history, and thus a kind of developmentalism, as concede it. Nail says that the conditions of the present select (so to speak) the series of past events that “lead to it,” but he does not quibble with the implication that they *do* “lead to it.” If so, then why not evaluate Hume, Hobbes, and whomever else, in terms of whether or not they live up to the requirements of the present for an ontology of motion? If each new present has already created a new developmental sequence of past events, then such whiggishness is methodologically justified and no doubt inevitable.

To some extent, Nail's revisionist redescription of the history of ontology is reminiscent of what Nietzsche says about "Will to Power" in the second essay of the *Genealogy of Morals*—not coincidentally one of the sources of inspiration for Bloom's conception of the "strong poet's" revisionary *clinamen*.<sup>48</sup> Nietzsche writes that "whatever exists ... is again and again reinterpreted to new ends, taken over, transformed and redirected by some power superior to it ... all subduing and becoming master involves a fresh interpretation." And crucially, each "fresh interpretation" retroactively applies a teleology to what has been mastered: "purposes and utilities are only *signs* that a will to power has become master of something less powerful and imposed upon it the character of a function."<sup>49</sup> I would suggest that this description suits Nail's approach to the history of philosophy more than the Marxian method he openly endorses.

Nail is a powerful reader, both in the sense of Bloom's strong poet and in the sense of Nietzsche's will to power. His revisionist reading of Lucretius is full of corrective misprision and his fresh interpretations of past ontologies impose upon them the function of "leading to" the ontology of motion. It seems, however, that Nail does not want to admit to either. As we've seen, in *Lucretius I* he is adamant that he's unearthing the "original meanings" of *De Rerum Natura*. Even in *Lucretius II*, where Nail recognizes his own interpretation of Lucretius as a revisionary *clinamen*, he still refuses to accept that such a creative misreading is the "free construction" of his readerly subjectivity. Likewise, Nail's will to power in the history of philosophy does not affirm its "becoming master" but refuses to take responsibility for what it subdues and transforms, transferring agency to "the present" instead. Nail's whiggish kinetic redescription of previous ontological regimes in *Being and Motion* is supposed to be a complementary gesture to what the present has already effected: selecting the lines of the past that lead to it. The same goes for his appreciation of Lucretius; it is prompted by the contemporary: "The time has come for a return to Lucretius" (LOM 1). Nail presents himself as gamely responding to the needs of the present, but he is doing something much stronger.

To be clear, I do not assume that so-called Whig history is necessarily flawed or intrinsically unpersuasive. It may well be that, just as *argumenta ad ingorantiam* are not always fallacious, presentism in historiography is not always bad practice. Perhaps in some contexts, like popular historical storytelling (potentially including Greenblatt's book), a little bit of whiggishness is not only inevitable but innocuous.<sup>50</sup> Or maybe Whig history is not as big a problem in certain subfields, like the history of science: in politics, successive ideologies can be diametrically

opposed to one another, but in science, each successive theory builds on the previous ones, and so optimism about “progress” in science is not as Pollyannish as the same view about politics.<sup>51</sup> This sort of argument could support Nail’s approach (though at the price of conceding a conception of progress he might be loath to accept), at least in *Lucretius I*, which refers throughout to the history of science and its present state. In relation to *Being and Motion*, the issue would be progress not just in science but also in philosophy, which is at least arguably more like politics than science (although this point is certainly debatable), and not all historians of philosophy are willing to accept the utility or inevitability of Whig history.<sup>52</sup>

The problem with Nail’s position is not that it is whiggish but that it seems to be internally inconsistent on these methodological issues: the conception of the relation between past and present in *Being and Motion* contains what looks like a justification for teleological historiography, which Nail applies to *Lucretius I* and *II*, but he disavows the developmentalism this entitles him to. So even if one were to grant to Nail that a certain kind of Whig history is inevitable, perhaps on the basis of broadly Nietzschean considerations—how else can you look at the past than from the point of view of the present? The alternative would be as fictitious as a “view from nowhere”—Nail’s explicit (Marxist) justification of his approach would still be at odds with the approach itself, in that, unlike Marx’s “appropriation” of the historical material in detail, it answers primarily to the present, not the past. As Nietzsche said about the “English genealogists” of morals, the approach risks being “unhistorical.”<sup>53</sup>

## ALTERNATIVE HISTORICAL METHODS

Nail declares that his interpretation of Lucretius is inspired by a “volcanic return to Lucretian naturalism” in the work of Gilles Deleuze and Michel Serres (LOM 8–9). But he diverges from these precedents in terms of both the content of his historical claims and his method. First and foremost, neither Deleuze nor Serres denies that Lucretius is committed to atomism: Serres states plainly that “since for [Lucretius] everything flows, nothing is truly of an invincible solidity, except for atoms”<sup>54</sup> and Deleuze refers to the “indivisible atom” in Lucretius’s text.<sup>55</sup> Nail might, of course, consider this atomic residue a *limitation* of their respective materialisms, as he does in *Lucretius II* when he says that Serres “accepted the existence of Lucretian atoms, despite their absence from *De Rerum Natura*” (LEM 213). Considering, however, the failure of Nail’s close readings of Lucretius to persuade, Serres and Deleuze’s unwillingness to endorse a non-atomist

interpretation may well be an asset.

Furthermore, neither Serres nor Deleuze is doing with Lucretius what Nail is—namely, identifying Lucretius’s position with the one they want to advance. It may perhaps seem that way in the case of the passages in Deleuze and Guattari’s *A Thousand Plateaus* which describe Lucretian atomism as a “minor science” and a model of “smooth space,” and from which Nail derives the epigraph to his *Lucretius I*: “The ancient atom is entirely misunderstood if it is overlooked that its essence is to course and flow.”<sup>56</sup> But in these contexts Deleuze and Guattari are only explicating Serres’s book about Lucretius and describing Epicurean atomism as embodying a model or case of their own distinctions between “nomad” and “State,” “smooth” and “striated.” It would also be an oversimplification to say that Deleuze and Guattari straightforwardly endorse or support the first term in each conceptual pair. In fact, they conclude the section from which Nail quotes by distancing themselves from this implication: “smooth spaces are not in themselves liberatory. ... Never believe that a smooth space will suffice to save us.”<sup>57</sup>

Serres, for his part, is committed less to endorsing Lucretian materialism than to writing the history of science. He confesses to being “anxious” about having discovered that aspects of Lucretius’s poem anticipate the modern science of fluid dynamics. This is an unexpected and frankly improbable “quasi-invariant” in a history where he expected the usual scientific revolutions.<sup>58</sup> Serres’s surprise seems to be related to the fact that he did not, as Nail puts it, “attempt to reinterpret *De Rerum Natura* with respect to some of the problems of contemporary physics” (LOM 9), if that means he set out to examine the past in terms of the present like Nail does. Serres’s approach is not particularly whiggish—or at least his approach, unlike Nail’s, has no built-in justification for a Whig methodology—and so his results initially embarrass him. Serres’s historical *bona fides* is on display when he pays careful attention (again, unlike Nail) to Lucretius’s ancient scientific and philosophical contexts—for example, the work of Democritus and particularly Archimedes, who, on Serres’s intriguing thesis, gives mathematical expression to ancient atomism.<sup>59</sup> Reading Lucretius *back* into the ancient world is quite different from Nail’s idea that twenty-first century physics can help us see or give expression to part of the reality of Lucretius.

Deleuze’s use of Lucretius is more susceptible to the charge of whiggishness. He probably originates the claim, which Serres repeats, that ancient atomism anticipates some of the insights of the differential calculus,<sup>60</sup> but, unlike Serres, Deleuze doesn’t originally defend it by placing ancient atomism in its historical

context—for example, alongside Archimedes. Even so, Deleuze’s interpretations of Hellenistic physics are relatively well supported by the extant ancient texts and even, in some cases, convergent with the conclusions of contemporary scholarship in ancient philosophy.<sup>61</sup> This may come as a surprise, since, when he reflects on his approach to the history of philosophy, Deleuze seems quite comfortable with the possibility that he is modifying, even distorting what he finds there—as he puts it, producing with the philosophers on whom he comments “monstrous” children and modified “doubles.”<sup>62</sup> Nail may actually be alluding to Deleuze’s method of begetting monsters in philosophical commentaries when he describes Lucretius as reading Epicurus in a way that goes beyond the latter’s intentions (LEM 9), but this allusion serves only to heighten the contrast. Nail waffles on the significance of close reading and translation, treating them simultaneously as means of returning to the “hidden” Lucretian text and its “original meanings” and as means for transforming or “swerving” away from what the text used to mean. Moreover, he appears to shirk responsibility for his historical will to power (imposing on past ontologies the function of “leading to” his own), while Deleuze affirms with a good conscience the way he is formatively putting the history of philosophy to work.

## CONCLUSION

To put the final sentence of the last section in other words, Deleuze is thinking about the *feedback loop* involved in his methodology: as the history of philosophy influences him, he influences (changes or transforms) the history of philosophy. Nail articulates a similar idea—“the past allows us to reinterpret the present with a new lens, while the present allows us to newly reinterpret the past at the same time”—and he even calls the relation between the “Lucretian past” and the “quantum present” a “feedback loop” (LOM 14). Yet I think my analysis has shown that this looked-for exchange between past and present might only work one way for Nail. The loop doesn’t actually feed back. Certainly, the “quantum present” allows Nail to reinterpret Lucretius, but in *Lucretius I*, unlike Deleuze, Nail does not admit that there’s a deformation, modification, or necessary misreading involved in this process. There Nail is committed instead to recovering original meanings, the truth of Lucretius, from beneath other interpreters’ alleged biases and misinterpretations. In *Lucretius II*, Nail sounds much more Deleuzian in this respect and concedes the inevitability of (potentially “monstrous”) transformation of what he is reinterpreting or translating. As Bloom puts it, every strong reading is a misreading. And yet, the method of close reading remains the same in both

volumes of *Lucretius*, equally devoted to unearthing what has been hidden by other translators and equally problematic in its concrete engagement with the Latin text. At the same time, Nail's insistence that his reading of Lucretius is "not a projection" of contemporary science—that is, his claim to be avoiding Whig history—stands at odds with the very conception of the relationship between past and present that he refers to in order to support it. *Being and Motion* not only suggests that for Nail "the present" has replaced the "a priori" in a quasi-dialectical historical method, but it also describes a relationship between the past and the present to which Nail appeals in the *Lucretius* books. That conception of the way the past "leads to" the present would seem to justify a whiggish developmentalism about the history of ontology, which, however, Nail disavows. I have argued that one way to summarize all this is to say that, in general, Nail disavows his own strength as a reader, preferring to maintain that it is not he selecting the lines of the past that lead to the ontological present; that is the present's doing, while Nail is just keeping up.

Nothing I have said poses a challenge to the project of developing an ontology of motion adequate to the ethical, political, aesthetic and scientific realities of the present day. Nor have I called into question the consistency or originality Nail claims for the theory of motion presented in the first book of *Being and Motion* (BM 13). In fact, I have perhaps emphasized its originality—though at the expense of Lucretius's. I have, however, cast doubt on Nail's way of reading Lucretius, and so, perhaps, also on his claim that "it is fitting" for a "new materialism" today to return to *De Rerum Natura*, with which "the entire history of an error began" (LOM 273)—namely, the supposed error of reading it as an atomist text.

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## NOTES

1. Volumes already in print include *The Figure of the Migrant* (Stanford: Stanford University Press, 2015), and *Theory of the Border* (New York: Oxford University Press, 2016), both on politics, *Theory of the Image* (New York: Oxford University Press, 2019), on aesthetics, and *Being and Motion* (New York: Oxford University Press, 2019), on ontology. Two volumes on Lucretius have already appeared, *Lucretius I: An Ontology of Motion* (Edinburgh: Edinburgh University Press, 2018) and *Lucretius II: An Ethics of Motion* (Edinburgh: Edinburgh University Press, 2020), and Nail promises a third.
2. Thomas Nail, *Being and Motion* (2019), pp. 32–33. This book will be hereafter referred to parenthetically as BM.
3. Thomas Nail, *Lucretius II: An Ethics of Motion* (2020), p. 214. This book will be hereafter referred to parenthetically as LEM. Cf. Christopher N Gamble, Joshua S Hanan and Thomas Nail, “What is New Materialism?” in *Angelaki* 24, no. 6 (2019): 124.
4. Thomas Nail, *Lucretius I: An Ontology of Motion* (2018), pp. 12–13; this text will hereafter be referred to parenthetically as LOM.
5. Harold Bloom, *The Anxiety of Influence: A Theory of Poetry*, 2nd ed. (New York: Oxford University Press, 1997), p. 14.
6. See, for example: Catherine Wilson, *Epicureanism at the Origins of Modernity* (New York: Oxford University Press, 2007) on the influence of the Epicurean mortality of the soul and social contractualism; Allison Brown, *The Return of Lucretius to Renaissance Florence* (Cambridge, MA: Harvard University Press, 2010) on atheism; Vittorio Morfino, *Plural Temporality: Transindividuality and the Aleatory Between Spinoza and Althusser* (Leiden: Brill, 2014), pp. 72–88 on chance, and Dimitris Vardoulakis, *Spinoza, the Epicurean: Authority and Utility in Materialism* (Edinburgh: Edinburgh University Press, 2020) on political authority.
7. Cf. Stephen Greenblatt, *The Swerve: How the World Became Modern* (New York: W. W. Norton & Co., 2011), pp. 6–7. Greenblatt’s historical account has been criticized by medievalists and historians of science for omitting medieval atomism and reprising the Renaissance scholar’s self-aggrandizing fable that the revival of Greek and Latin classics was all the doing of Italian humanists: Michael H Shank, “Swerving Atoms, Medieval Vacua, Colliding Meanings” in *Exemplaria* 25, no. 4 (2013): 316–317, and Michael Herren, “Review: *The Swerve: How the World Became Modern*” in *Journal of Medieval Latin* 22 (2012): p. 299.
8. Pierre Vesperini, *Lucrece: Archéologie d’un classique européen* (Paris: Fayard, 2017).
9. Nail lists Bruno, Bacon, Gassendi, Galileo, Hobbes, Descartes, Newton, and others as representatives of the paradigm of modern materialism (LOM 7)—a selection of names that seems to be derived from the order of presentation in Greenblatt’s book.
10. Monte Johnson and Catherine Wilson, “Lucretius and the History of Science” in *The Cambridge Companion to Lucretius*, edited by Stuart Gillespie and Philip Hardie (New York:

- Cambridge University Press, 2007), pp. 132, 137.
11. Philip H De Lacy, “Lucretius and Plato” in ΣΥΖΗΤΗΣΙΣ: *Studi sull’ epicureismo greco e romano offerti a Marcello Gigante* (Naples: G. Macchiaroli, 1983), pp. 291–307; David Sedley, *Lucretius and the Transformation of Greek Wisdom* (New York: Cambridge University Press, 1998), pp. 75–82.
  12. Greenblatt, *The Swerve* (2011), p. 73, cf. pp. 187–190.
  13. Shank, “Swerving Atoms” (2013), pp. 315–316.
  14. Diskin Clay, *Lucretius and Epicurus* (Ithaca, NY: Cornell University Press, 1983), pp. 13–35.
  15. For example, Monica Gale, *Myth and Poetry in Lucretius* (New York: Cambridge University Press, 1994), pp. 129–155, and Sedley, *Transformation of Greek Wisdom* (1998), pp. 134–165.
  16. Cicero, *On the Orator: Book 3. On Fate. Stoic Paradoxes. On the Divisions of Oratory*, translated by H Rackham, (Cambridge, MA: Harvard University Press, 1942), pp. 216–220, 242–244; Cicero, *On the Nature of the Gods. Academics*, translated by H Rackham (Cambridge, MA: Harvard University Press, 1933), pp. 66–70; Cicero, *On Ends*, translated by H Rackham (Cambridge, MA: Harvard University Press, 1914), pp. 18–22.
  17. Gale, “Introduction,” in *Oxford Readings in Lucretius*, edited by Monica Gale (New York: Oxford University Press, 2007), p. 1.
  18. Lucilius, *Remains of Old Latin, Volume III*, translated by E H Warmington (Cambridge, MA: Harvard University Press, 1938), p. 542; Sedley, *Transformation of Greek Wisdom* (1998), p. 38.
  19. Cicero, *On the Nature of the Gods* (1933), pp. 414–416.
  20. For the Latin text of *De Rerum Natura* I rely on Lucretius, *On the Nature of Things*, translated by W H D Rouse, revised by M F Smith (Cambridge, MA: Harvard University Press, 1975), which I will cite parenthetically as DRN followed by the book and line number. The translations from Latin are mine unless otherwise indicated.
  21. Katherine C Reiley, *Studies in the Philosophical Terminology of Lucretius and Cicero* (New York: Columbia University Press, 1909), pp. 49–56. For the Greek text of Epicurus’s letters and collected sayings, I use Diogenes Laertius, *Lives of Eminent Philosophers*, edited by R D Hicks (Cambridge, MA: Harvard University Press, 1925).  
 Parenthetical references to this text will hereafter appear as D.L., followed by the book and standard marginal numbers.
  22. Reiley, *Philosophical Terminology* (1909), pp. 59–60.
  23. Sedley, *Transformation of Greek Wisdom* (1998), p. 38.
  24. In *Lucretius II* Nail actually quotes Lucretius using the word “*particulae*” (at 3.708) without commenting on it (LEM 106), and he quotes selectively from the second part of the sentence containing the word “particle” at 4.260: “we don’t usually feel every single particle of the wind ... but rather the whole at once” (cf. LEM 174).
  25. Douglas Walton, “The Appeal to Ignorance,” in *Argumentation* 13 (1999): pp. 371–373.
  26. Cicero, *On the Nature of the Gods* (1933), p. 538.
  27. Lucretius, *On the Nature of Things*, translated by Walter Englert (Indianapolis: Focus

Philosophical Library, 2003).

28. Besides false etymologies, Nail's close reading of *De Rerum Natura* is also marred by simple factual errors about the ancient Mediterranean and Near East, ancient Greek and Roman philosophy, and scholarship on the latter, which strain a reader's charity. For example, Nail describes how volcanic rock buried the text of *De Rerum Natura* in Pompeii (LOM 91), but he is presumably referring to the Villa of the Papyri at Herculaneum. Similarly, he identifies Empedocles as coming from the "island of Acragas" (133), which is not an island but a Greek colony in Sicily. Nail also refers to "Rouse-Smith" as a translator of Lucretius (52), which is actually two people, one of whom revised the other's translation, and he seems to believe that Humbaba, the guardian of the cedar forest in *The Epic of Gilgamesh*, is female (237).

29. David Furley, "Variations on a Theme from Empedocles in Lucretius' Proem," in *Bulletin of the Institute of Classical Studies* 17 (1970): 55–64, Clay, *Lucretius and Epicurus* (1983), pp. 22–23, Sedley, *Transformation of Greek Wisdom* (1998), pp. 23–25.

30. Elizabeth Asmis, "Lucretius' Venus and Stoic Zeus," in *Hermes* 110, no. 4 (1982): 458–70. On the Stoics and Spinoza, Jon Miller (*Spinoza and the Stoics*, [New York: Cambridge University Press, 2015]) enumerates the similarities and differences between the two conceptions of divine immanence.

31. Tim O'Keefe, *Epicureanism* (Berkeley: University of California Press, 2010), pp. 155–62.

32. Monica Gale, *Myth and Poetry in Lucretius* (New York: Cambridge University Press, 1994), pp. 50, 99.

33. Sedley, *Transformation of Greek Wisdom* (1998), pp. 15–34.

34. E J Kenney, "Doctus Lucretius" in *Oxford Readings in Lucretius*, edited by Monica Gale (New York: Oxford University Press, 2007), pp. 300–327.

35. Sedley, *Transformation of Greek Wisdom* (1998), p. 17.

36. Reiley, *Philosophical Terminology* (1909), p. 50.

37. *Ibid.*, pp. 53–54.

38. Bloom, *Anxiety of Influence* (1997), pp. 44–45.

39. *Ibid.*, p. 14.

40. *Ibid.*, pp. 28–30.

41. Karl Marx, *Capital, Volume 1*, translated by Ben Fowkes (New York: Vintage Books, 1977), p. 102.

42. *Ibid.*, pp. 100–102.

43. Herbert Butterfield, *The Whig Interpretation of History* (New York: W. W. Norton & Co., 1931), pp. 30–31.

44. Susan James, "Why Should We Read Spinoza?" in *Royal Institute of Philosophy Supplement* 78 (2016): p. 112.

45. Shank, "Swerving Atoms" (2013), p. 315.

46. The absence of developmental implications is perhaps why Nail feels able to associate the

oral cultures and mythologies of various contemporary non-Western, Indigenous and African peoples with the ontological descriptions of the Neolithic era: for example, the “spatialization of temporal being is still ontologically dominant today among several Native American peoples, such as the Lakota, Navajo, and Hopi” (BM 165).

47. Butterfield, *Whig Interpretation* (1931), pp. 11–12.

48. Bloom, *Anxiety of Influence* (1997), p. 8.

49. Nietzsche, *On the Genealogy of Morals and Ecce Homo*, translated by Walter Kaufmann (New York: Vintage Books, 1989), p. 77.

50. Cronon, “Two Cheers for the Whig Interpretation of History” in *Perspectives on History* 50, no. 6 (2012).

51. Ernst Mayr, “When is Historiography Whiggish?” in *Journal of the History of Ideas* 51, no. 2 (1990): 301–309.

52. E.g., James, “Why Should We Read Spinoza?” (2016).

53. Nietzsche, *Genealogy of Morals* (1989), p. 25.

54. Michael Serres, *The Birth of Physics*, translated by Jack Hawkes (Manchester: Clinamen Press, 2000), p. 5.

55. Gilles Deleuze, *The Logic of Sense*, translated by Mark Lester with Charles Stivale (New York: Columbia University Press, 1990), p. 268.

56. Gilles Deleuze and Felix Guattari, *A Thousand Plateaus: Capitalism and Schizophrenia*, translated by Brian Massumi (Minneapolis: University of Minnesota Press, 1988), p. 489; cf. 361.

57. *Ibid.*, p. 500.

58. Serres, *Birth of Physics* (2000), pp. 161–162.

59. *Ibid.*, p. 13.

60. Gilles Deleuze, “*Lucrece et le naturalisme*,” *Études philosophiques*, nouvelle série 16.1 (1961): 19–29; Serres, *Birth of Physics* (2000), pp. 11, 14–17. On Deleuze as the originator of this idea, see Michael J Bennett, *Deleuze and Ancient Greek Physics: The Image of Nature* (London: Bloomsbury, 2017), pp. 216–223.

61. Bennett, *Deleuze and Ancient Greek Physics* (2017), pp. 251–252.

62. Gilles Deleuze, *Negotiations: 1972–1990*, translated by Martin Joughin (New York: Columbia University Press, 1995), p. 6; Gilles Deleuze, *Difference and Repetition*, translated by Paul Patton (New York: Columbia University Press, 1994), p. xxi.

