Ovidius
Journal of The International Ovidian Society
ISSUE 1 (2025) 1–47

Ovid's Phaethon: Anthropogenic Global Heating, Ancient and Modern

ALISON SHARROCK

ABSTRACT

The longest single episode in Ovid's *Metamorphoses* recounts the tale of Phaethon, who persuaded his father Sol (the sun) to allow him to drive his fiery chariot across the heavens. The results are predictably horrendous, with Sol's chariot and horses running wild and setting fire to the whole world. This paper proposes a reading of Ovid's Phaethon story from the perspective of contemporary global heating. It argues for a remarkable sensitivity in the passage to the suffering of the whole biosphere, by comparison with other ancient versions of the myth, which are usually brief and emotionally detached, and with conventional readings of Ovid's account, which generally stress issues to do with astronomy, solar divinity, ekpyrosis, human hybris, aetiology, paternity, inheritance, and politics. This article seeks not to oppose those interpretations, but rather to add a reading that takes shape in response to the 21st-century climate crisis.

KEYWORDS

Ovid, *Metamorphoses*, Phaethon, ecocriticism, fire in literature, chariot of the sun, global heating in literature, environment in literature

> [Tiberius] ... ut aliquotiens praedicaret exitio suo omniumque Gaium uiuere et se natricem populo Romano, Phaethontem orbi terrarum educare.
>
> ... that Tiberius used to say now and then that to allow Gaius to live would prove the ruin of himself and of all men, and that he was rearing a viper for the Roman people and a Phaethon for the world.
> Suetonius *Caligula* 11

Recent blazes in Chile and Argentina have highlighted the need for better environmental laws as the climate crisis deepens. As South

ISSN 3068-9856 © 2025 Alison Sharrock 23 January 2025

> America endures unprecedented high temperatures, after the hottest January on record globally, it is still coming to terms with the devastating wildfires that have torn across the continent.
>
> *The Guardian*, 13 February 2024

The story of Phaethon, the son of the Sun whose attempt to drive his father's chariot went wildly wrong, constitutes the longest episode in Ovid's *Metamorphoses*. Famously straddling the first two books, the narrative plays outrageously with generic convention, with repetition (of Chaos, of the Flood, of epic storms), and with distortions of time. It is an episode with huge potential for philosophical, poetological, and politicising readings, and was effective in setting up a mythic and symbolic legacy of the story which will come to be exploited extensively both in the ancient world and later. The myth appears frequently in Graeco-Roman literature: Diodorus Siculus, in the generation before Ovid, states that many poets and prose-writers have told the story, which he then recounts as resulting in the formation of the Milky Way, the burning of the heavens, and some incidental damage to the earth (5.23.2).[1] From the number of brief allusions to the story in Greek and Latin literature, we can deduce that Diodorus is not wrong about the 'many'.

What is much less common, however, in the various representations of Phaethon's fiery journey, is any extended interest in the effect on Planet Earth of his disastrous and hubristic undertaking. Ancient artists, and indeed modern critics, generally seem more interested in some combination of the following than they are in burning forests: astronomy, solar divinity, ekpyrosis, human hybris, the aetiology of amber (from the sisters' transformation into trees), paternity, inheritance, and politics.[2] The great exception is in Ovid's *Metamorphoses*: not that those other themes are absent from his account, but that he focuses the reader's attention also on the damage inflicted on the Earth and all her children. In Ovid's version, a very youthful

[1] On the life of the myth in extant Greek and Roman literature, see Diggle (1970) 4–32.

[2] Closs (2020) is a major study of the role of fire in Roman politics. Closs's main discussion of the *Metamorphoses* Phaethon is at 79–88, and covers the bibliography well. Schiesaro (2014) has shown with outstanding acuity how Ovid engages with Lucretius, both in emulation and in re-mythologising critique, leading to exploration of 'poetic authority, political positioning, and Oedipal competition'. Feldherr (2016) is an excellent reading of the political issues. Holzberg (1998) 88–91 reads Phaethon as an image of the poet, with the out-of-control chariot reflecting out-of-control poetry. For a straightforward reading of issues of identity and paternity in the passage, see Galinsky (1975) 49–51.

Phaethon, goaded by embarrassment and anxiety regarding his parentage, seeks out his divine father, and persuades the god to allow him to drive his fiery chariot. Phaethon quickly loses control of the vehicle, the sun comes too close to earth, and the world catches fire. Earth (Tellus) herself rises up to beg Jupiter to stop this madness, as a result of which Phaethon is blasted out of the chariot and killed. His grieving sisters are transformed into poplars, in what feels like a perfunctory 'proper metamorphosis story' tagged onto the extended episode as an excuse to include the story within the poem, although this directly metamorphic element in fact features centrally in many other versions of the story. In this paper, I concentrate on the burning forest, the melting snow, and the suffering planet in Ovid's account. I also read it as a reverse premonition of the current climate emergency. 'Reverse premonition', because it is only with hindsight that it gains this premonitory potential.

1. Reading Ancient Literature in the Anthropocene

Phaethon provides good material for reimagining ancient myths to explore modern problems, such as in John Shoptaw's poem, *Whoa!* Here, the Phaethon-character, called Ray, is described by its author as being modelled in part on Donald Trump, whose announcement in 2017 that he would pull out of the 2015 Paris Agreement was, according to Shoptaw, the impetus for the composition of the poem.[3] Such re-imaginings of classical myth and literature make a worthwhile contribution to eco-literature, i.e. the efforts of contemporary culture to influence attitudes, behaviours, and ultimately policy towards a better future for the planet. Ecocriticism is a different endeavour, albeit not unrelated, with the same socio-political aims but different means and non-identical audiences: it is a matter of rereading existing literature in the light of contemporary problems. That is what I aim to do in the present article.

[3] *Whoa!* is reproduced in Sissa and Martelli (2023) 19–32. In the epilogue of the volume (221–6), Shoptaw reflects on his creative process and on the potential for the *Metamorphoses* to offer material for eco-poetry. Sissa and Martelli's volume represents an important contribution to the growing interest in eco-critical approaches to ancient literature, promoted as a major desiderium for Ovidian studies in particular in Martelli (2020), where Martelli situates the eco-critical concern for the reality of the physical world against the poststructuralist traditions of reading Ovid as purely a play of texts and words.

I propose that Ovid's Phaethon-story can usefully be read through contemporary eyes, eyes attuned to the planetary damage being done by excess greenhouse gases, and that doing so is of value in the broader fight both to encourage changes in societal attitudes and to promote the ongoing purpose in reading ancient texts. Global heating since the Industrial Revolution, accelerating since 1950, is being caused primarily by the burning of vast quantities of fossil fuels, putting excess carbon dioxide and other gases into the atmosphere, which then causes the planet to absorb more heat from the sun. The term 'Anthropocene' is glossed in this way by the Anthropocene Working Group of the Subcommission on Quaternary Stratigraphy: 'The "Anthropocene" is a term widely used since its coining by Paul Crutzen and Eugene Stoermer in 2000 to denote the present geological time interval, in which many conditions and processes on Earth are profoundly altered by human impact. This impact has intensified significantly since the onset of industrialization, taking us out of the Earth System state typical of the Holocene Epoch that post-dates the last glaciation.'[4] Debate regarding the term's meaning and utility, as well as its chronological range (suggestions include the taming of fire, the beginning of agriculture, the Industrial Revolution, and the development of nuclear technology), is extensive in environmental circles. The issue for ecocritics is well summed up by Timothy Clark, when he suggests that the term is better described as 'a loose interdisciplinary translation, being used primarily to mark a threshold in human historical self-understanding'.[5] I take very seriously the arguments of Andreas Malm, that the term 'Anthropocene' is misleading in that the causes of runaway global heating are to be found less in humanity in general, than in the particular choices of British capitalists in the first half of the 19th century, choices that were based on the profit motive and class antagonisms.[6] While acknowledging that more responsibility lies with a particular group of *anthropoi* than the species in general, I continue to use the term 'Anthropocene', because this is widely recognised as a shorthand for reference to the contemporary world in its ecological crisis.

Although no ancient author knows about global heating as we both understand and experience it, Ovid is remarkable, I suggest, in thinking

[4] http://quaternary.stratigraphy.org/working-groups/anthropocene/ Accessed 24/09/2024.

[5] Clark (2019) 17–22 (quotation at 21).

[6] Malm (2016) is a full-scale exploration of this issue, with chapters 2 and 12 particularly important places to see the basis and outcome of the argument.

imaginatively about what it would be like if the sun's power were to reach us unmediated, thrown out of the natural balance that moderates its light and heat, that moderation in turn making the earth inhabitable. Ovid does this by bringing the sun physically closer to earth, rather than by changing the nature of the earth's atmosphere, as in the contemporary case, but the result is markedly similar. That is the 'soft' version of this paper: this passage in the *Metamorphoses* is an imaginative exploration, more-or-less unparalleled in ancient literature, of a world suffering from excess heat. The 'hard' version proposes that if we are going to read ancient poetry at all, then we must come alive to the way in which our contemporary readerly embodiment experiences the text differently, even for those of us (probably the majority) who read ancient poetry, and criticism on it, from a situation of luxurious comfort compared with that of the global majority at the sharp end of climate change.

Many of the most powerful voices in contemporary ecocriticism have argued that the onset of the Anthropocene creates a gulf between pre-modern and post-modern cultures, by which nothing is and never will be the same as it was — at a level on a different scale from that at which this is a truism (we might call it the Heraclitan truism). Timothy Morton goes so far as to describe this situation as meaning that the world has already ended.[7] More sober is the view expressed in many places by Timothy Clark, including that 'the fundamental context for all intellectual work has changed, or must be recognised anew, as the ground beneath it becomes unstable'.[8] My intention in this paper is not to make a claim, which I would regard as simplistic, that Ovid in any sense 'got there first' on climate change. I am offering this ecocritical reading of a passage in the *Metamorphoses*, not in order to propose the *Metamorphoses* as an ecocritical text, in the way, for example, that Richard Powers' *The Overstory* (a 2018 novel about saving American forests, in which the *Metamorphoses* features) is an ecocritical text, but to propose that we can, or even must, explore the poem in such a way as to allow its dynamics to change us, just as it is itself changed by our reading. Although Clark has very little to say about pre-modern literatures, I take a comment of his as my guiding light in this study, when he speaks of

[7] See, for example, Morton (2013) 6. While one might take issue with his hyperbolic rhetoric, the fundamental changes are hard to deny.

[8] Clark (2019) 29.

the 'need to acknowledge how deeply new forms of human historical self-understanding must also alter readings of the past'.[9]

Phaethon's ride causes *global* fire, an image far more familiar to modern readers than it would be to Ovid's original audience. Fire, I suggest, is one of many natural phenomena the meaning of which has changed in the Anthropocene.[10] It will be useful briefly to sketch out the dominant imaginary against which Ovid's story was written and originally read, in order to appreciate both what is remarkable about this passage in the *Metamorphoses*, and also how fire has changed its meaning. Most fire in Latin (and Greek) literature is either symbolic or relates to the military destruction of cities.[11] Often, the symbolic and literal are closely intertwined, as, for example, in the case of Lavinia spouting fire, symbolising glory for herself but destruction for her people.[12] The proliferation of symbolic fire in the Ovidian corpus is such that the substantial majority of hits from a word search such as *ignis*, *incendium*, or *flamma* in Ovid are symbolic, and most of those are in erotic contexts. The fact that so much Ovidian fire is symbolic should be noted for the contrast with the determinedly literal nature of the fire caused by Phaethon, discussed further below. Another substantial group of fiery language relates to celestial bodies, where cultural roles include the scientific, philosophical, political, and navigatory.[13] Fire also has strong positive associations with culture, especially cooking, light in darkness, and what might best be called 'the spark of life'. These positive associations are readily seen in cultural phenomena such as the cult of Vesta, the importance of the hearth, and exile as the 'denial of fire and water'. Although the danger to life, limb, and property from accidental burning was real and substantial, exploration of this danger plays a remarkably small role in Roman literature, other than in cases of military destruction. Indeed, natural fires or anthropogenic rural fires are largely

[9] Clark (2019) 21.

[10] Compare the claim made by Clark (2019) 34, that terms like 'spring' can no longer have the same meaning 'in the 2020s as they had before'.

[11] See Closs (2020) 3 on the narrative of Troy's destruction in Roman thinking about city fires. The vast majority of literal fire in Roman epic is military.

[12] *Aen*. 7.71–80. Knox (1950) is foundational on this topic.

[13] On Phaethon's contribution to Ovidian (and other) ekpyrosis, see Krasne (2022) and Garani (2022).

beneficial in a broadly stable biosphere.[14] By contrast, fire in the 2020s, at least in the privileged global North, is associated not so much with cooking and heating (even though most of us do, out of sight, still burn fossil fuels for that purpose) as with the Amazon actually contributing carbon dioxide rather than absorbing it, or forest fires threatening privileged California (threats suffered disproportionately, as elsewhere, by those Californians who are less privileged). Fire no longer holds its blessings and curses in balance.

This difference in scale over time, I suggest, makes Ovid's interest in the effect of Phaethon's fire on the world remarkable. Ancient accounts both earlier and later than the *Metamorphoses* generally take a view that might best be described in a version of the colloquial saying: 'yeah, the world was burnt, get over it'. 'Getting over it' might very well have been an appropriate response in the first decade A.D., when Phaethon's destructive ride could be seen as something existing on a similar scale to the ordinary disasters of war, earthquake, pestilence, or storms that attack areas of the world from time to time. But in the third millennium, the world as we know it no longer has that option.

With each passing year without drastic action, the extent of possible recovery on any human timescale diminishes. The problem for humanity in the 21st-century is the sheer scale of our impact on the rest of the planet, the impact of the combined activities, human-sized in themselves, which have been multiplied over time and especially by the huge population.[15] The issue of scale is crucial to environmental science and ecocritical reading. Global heating is caused by the huge scale of human activity, rather than the nature of any particular human act. The Anthropocene and its effects are at a scale beyond human grasp: this, as I understand it, is the sense that Timothy Morton is trying to convey with his notion of the 'Hyperobject', the

[14] Fire is usually positive in the *Georgics*, for example at 1.267 and 2.431–2. At *Georg*. 1.84–93, fire is employed to clear out useless stubble, described by Closs (2020) 40 as 'a productive metaphor for improving a world suffering from destruction or decline'. It is in the 'low' genres that we are most likely to see non-military urban fire, for example Juvenal *Satire* 3.197–222, where the concern is with material inequality and a potential insurance scam.

[15] See Berners-Lee (2019), Ritchie (2024). The world could sustain a population substantially larger than the currently estimated peak, but only with major changes in lifestyle in the global North.

ultimate example of which is climate change itself.[16] Ovid's metamorphic story, therefore, cannot now have the same meaning as it did originally, and continued to have for many centuries afterwards.

That continuity continues into the second half of the last century, even though the warning signs were already present. I perceive it in the responses of some 20th-century critics to the burning world, for example in Galinsky's interpretation of Phaethon, which I find disturbingly light-hearted. Galinsky downplays 'Phaethon's mishap' as 'a heatwave', and claims that 'n]ot a word is said about death, misery, and pathos. Rather, Ovid displaces these themes with a studied interest in the time-honoured aetiological function of myth. An insouciant catalogue of *aitia* is the result ... He adds to this the comical account of how the sea nymphs got uncomfortably hot ...'. Galinsky then quotes Dryden: 'the poet should endeavour to raise pity; but instead of this, Ovid is tickling you to laugh'.[17] That there may be some humour in this scene (although it must be at best dark humour) need not detract from my argument, but I suggest that some modern scholars overplay the humour relative to the destructive violence, just as they generally overplay the 'light, playful' aspects of the poem. We must acknowledge, moreover, that for Dryden, and even for Galinsky, global heating holds nothing of the fears, and forest fires little of the concern, with which they are freighted today.

2. Ovid and the Phaethon Story

In producing his unusually extended exploration of the Phaethon story, it was not inevitable or essential for Ovid to expand as he does upon the suffering of the world, nor does it seem that he had much precedent for doing so.[18] In this section, I shall briefly outline other notable ancient versions of the Phaethon story, in order to draw out the contrast with the

[16] Morton (2013). Woods (2022) offers a succinct account of the interaction between human-embodied reading and the nonhuman scale of climate. Clark (2015) is one of the best analyses of the range of interactions between literature and Anthropocene 'scale'.

[17] Galinsky (1975) 132–3. On humour in *Metamorphoses*, including this passage, see Peek (2001), Kirby (1989). The Phaethon story does not feature much in Tissol (1997), appearing twice briefly with regard to syllepsis (19, 222), and once on the double identity of Tellus.

[18] There is, of course, always the possibility of a 'lost Hellenistic original', as we can never know what we don't know. Diggle (1970) rejects recourse to this critical trope.

Metamorphoses passage and thus situate the 'soft' argument of this paper, although the 'hard' version is never far below the surface.

Plato tells the story of Phaethon in *Timaeus* 22C–D.[19] The speaker, an elderly Egyptian priest, recounts the legend only to correct it with scientific explanation of recurrent destruction events. All the old priest has to say from the perspective of the Earth is τά τ' ἐπὶ γῆς ξυνέκαυσε ('he burnt up all that was upon the earth'[20]) — entirely appropriate to his context, of course, but in tone exactly the opposite of Ovid's account. Ovid follows the same scientific understanding as Plato when he has *quaeque altimissma tellus* ('wherever the earth is highest', *Met*. 2.210) being the first to catch fire, as Plato's Egyptian priest says 'they that dwell on the mountains and in high and dry places' suffer the worst destruction, but Ovid enacts an emotional identification with the land that is entirely lacking in the Egyptian, who speaks *sub specie*, if not *aeternitatis*, then at least of geological time. The priest's claim at 23E of having 9000 years' worth of written records constitutes as near to geological time as would be available to an ancient speaker. His attitude is reflected in some contemporary opinions, including those of some extreme environmentalists, that downplay the need to act by drawing attention to the many disasters that the Earth has suffered and recovered from over millions of years. My own concern is not so much whether humanity, or a host of other species, will survive the next few thousand years, but how much suffering will be involved in the next hundreds or even tens of years. Likewise, where Plato's priest sees eventual recovery over periodic disasters, Ovid's narrator enters into the global suffering of the biosphere, now.

Other pre-Ovidian accounts are similarly unconcerned about the effects on the Earth. Euripides' fragmentary *Phaethon* is the only substantial extant offering from tragedy, despite the story's obvious tragic potential.[21] Euripides' plot is different from Ovid's: it involves a planned marriage between Phaethon (as supposed son of Merops) and a daughter of Helios (Phaethon's actual father). The dramatic concentration of fieriness is on the smouldering corpse of Phaethon, not of the world, which appears from fragments to have remained remarkably unscathed. If there were any

[19] The context is a story about Solon, narrated by Critias, of the lawgiver's visit to Egypt and his scientific discussions with the learned Egyptian priests.

[20] Text and translation are from Bury (1929).

[21] Note also Aeschylus' all-but-lost *Heliades*, on which see Diggle (1970) 27–32.

description of wider destruction, it would be most likely to have come in the Messenger's speech.[22] There is nothing in the extant fragments to suggest any description of a world on fire.

Apollonius' Argonauts come across the remnants of the Euripidean story when the Argo enters the Eridanus (*Arg*. 4.595–600):

> ἡ δ' ἔσσυτο πολλὸν ἐπιπρὸ
> λαίφεσιν, ἐς δ' ἔβαλον μύχατον ῥόον Ἠριδανοῖο,
> ἔνθα ποτ' αἰθαλόεντι τυπεὶς πρὸς στέρνα κεραυνῷ
> ἡμιδαὴς Φαέθων πέσεν ἅρματος Ἠελίοιο
> λίμνης ἐς προχοὰς πολυβενθέος· ἡ δ' ἔτι νῦν περ
> τραύματος αἰθομένοιο βαρὺν ἀνακηκίει ἀτμόν,
>
> Where once Phaethon was struck by a blazing lightning bolt on his chest and fell half burned from Helios' chariot into the waters of that deep swamp, which to this day spews up noxious steam from his smouldering wound.[23]

Apollonius has no interest in wider damage, except for destructive fumes which arise from the river and cause birds to collapse in mid-flight over it (*Arg*. 4.601–3). As we might expect from this poet, he briefly explores also the Heliades and the aetiology of amber (*Arg*. 4.603–11). This version of the myth, then, offers no precedent for description of destruction of the world, but it might have potential as a reflection on the effects of this major disruption, in the depressive effect of the toxic fumes on the Argonauts' morale (*Arg*. 4.619–26).

In Latin literature, the main extant accounts of Phaethon outside the *Metamorphoses* are in a 'scientific' tradition similar to that manifested by Plato's Egyptian priest, in Lucretius and Manilius. Lucretius introduces Phaethon in the context of a description, in strongly military terms, of the battle between fire and water (Lucr. 5.392–5).[24] There was one occasion, Lucretius says, apparently remembering just in time to qualify his account with a distancing *ut fama est*, when fire got the upper hand, and one time

[22] See Diggle (1970) 41–2.

[23] Text and translation from Race (2008).

[24] Parallels with the Chaotic opening of the *Metamorphoses* are clear (*Met*. 1.18–19). The association between fire and water, and the myths of Phaethon and of Deucalion & Pyrrha, is prevalent throughout antiquity. It is at work also in the Scholia Strozziana and in the mythographer Hyginus, both of whom name-check Hesiod.

for water, which introduces the Phaethon story (Lucr. 5.396–410). Lucretius the poet seems momentarily carried away by a mythic explanation of destruction by fire, and a heroic charioteer blasted from the sky by Jupiter.[25] The philosopher quickly pulls back, however, with a statement that applies the 'true reason' which, according to his philosophy, brings understanding and indifference: fire occurs naturally, he says, when *materiai/ex infinito sunt corpora plura coorta* ('more bodies of material have arisen together from the infinite', 5.407–8). What happens then, he says with remarkable dispassion, is that either the fire is overcome or *pereunt res exustae torrentibus auris* ('things, burnt up, perish in torrid winds', 5.410).

Another philosopher to address the story is Manilius, who probably wrote his *Astronomica* in the second decade AD.[26] Phaethon appears in Manilius' discussion of the formation of the Milky Way (Manil. *Astr*. 1.735–49). In lines that may owe something to Ovid's Icarus as well as his Phaethon, Manilius' charioteer plays around in the sky and accidentally goes off the route. It is the stars, rather than the earth, that suffer as a result (1.741–2). The effect of Phaethon's disastrous route and violent destruction is still visible and written into the stars (1.746–9), as the Milky Way, in keeping with long tradition.[27] Manilius' poetic purpose being astronomical, it is not unreasonable that the main focus of his account is on the heavens rather than the earth. There is, however, something remarkable in the mere two lines that he devotes to terrestrial damage (1.744–9):

> quid querimur flammas totum saeuisse per orbem
> terrarumque rogum cunctas arsisse per urbes?
>
> Why do we complain that flames raged through the whole world and a funeral pyre of the lands blazed through all cities?

[25] See especially Schiesaro (2014). He points out that the description of Phaethon as *magnanimus* in *Met*. 2.111 is a marked reference to Lucr. 5.400, since there is nothing particularly 'great-hearted' in the behaviour of Ovid's Phaethon, who will lose both confidence and control of the chariot almost immediately, although the undertaking itself is the act of a transgressive, hubristic, larger-than-life hero, as implied by the adjective.

[26] See Volk (2009) 3–4 for the date of the *Astronomica*, including a 'terminus post quem … provided by 1.896–903, where Manilius mentions the disastrous defeat in AD 9 of the Roman army under Varus'.

[27] Volk (2009) 263.

His dismissive reference to the flames raging through the *orbis* and all the *urbes*, i.e. the world of humanity, reads like a deliberate reference to some other text which expatiates on the subject of human destruction. That text could be a work no longer extant, or it could be the *Metamorphoses* itself. Admittedly, Ovid's concern is focused more on the natural world than the cultural, but his reference to cities does include 'complaint' and ashes, which could be evoked by Manilius' *rogus*. Ovid says (*Met*. 2.214–16):

> parua queror: magnae pereunt cum moenibus urbes,
> cumque suis totas populis incendia gentis
> in cinerem uertunt.
>
> I'm complaining about minor matters. Great cities perish with their walls, and the fires turn whole peoples with their populations to ashes.

If I am right, then, what we are seeing here is a near-contemporary noticing and commenting ironically on the unusual emphasis on terrestrial destruction, in Ovid's account of Phaethon.

Elsewhere in Latin literature, Phaethon appears mostly as a brief exemplum.[28] A case in point is Horace *Carm*. 4.11.23–31, where the doomed charioteer acts as warning regarding the importance of not aiming above one's station in life. Other appearances of Phaethon in the Ovidian corpus are far more similar to the Horatian example than they are to Ovid's own extended account. In *Fast*. 4.793–4, Phaethon appears, very briefly,[29] alongside Deucalion, in a series of possible explanations for the ritual of jumping over flames and being sprinkled with water as part of the Parilia festival. In *Trist*. 1.1.79, he is an exemplum for learning from your mistakes, while in *Trist*. 3.4.29–30 Ovid follows Horace even more closely, using Phaethon as an example of people who would have been better off had they lived a hidden life. Finally, in *Trist*. 4.3.65–6, Phaethon stands for people who have not been rejected by loved ones even though suffering horrible punishment, as Ovid hopes not to be rejected by the addressee despite the

[28] Diggle's comment (1970) 9 on the post-Ovidian history of the myth is worth repeating: 'after Ovid the search for Euripides must cease. Ovid's successors, both Roman and Greek, could not remain immune from his influence. The poets of the Silver Age did not emulate him but were content to employ the briefest allusions to the story.'

[29] It is just: *sunt qui Phaethonta referri/credant et nimias Deucalionis aquas*.

punishment inflicted by Augustus, Ovid's Jupiter.[30] My point here is to stress the difference in the *Metamorphoses* version.

Phaethon appears in Lucan's *Bellum Civile* explicitly in the catalogue of rivers in Book 2, when the river Po manages *habuisse pares Phoebeis ignibus undas* ('to have had waves equal to the fires of Phoebus', 2.415). A brief reference in the previous line to *tellure perusta* (2.414) is the nearest Lucan comes to any direct description of terrestrial damage. This follows the implicit allusion to Phaethon in the proem, where the reference to Earth *not* being afraid of Nero mounting the chariot of the sun (*seu te flammigeros Phoebi conscendere currus/telluremque nihil mutato sole timentem*, 1.48–9) is easy picking for anyone ready to read between the lines.[31] Although Lucan's main interest is in the cosmological, political, and symbolic potential of the Phaethon-myth, using Earth as a crucial player in the semi-covert allusion may be an implicit nod at Ovid's particular interest in terrestrial damage.

3. This is Not a Simile

Amitav Ghosh, in his manifesto for a re-imagination of the contemporary novel for the realities of the ecological crisis, has argued persuasively for the crucial ontological difference between metaphorical representations of extreme weather and the real thing.

> There is, however, an important difference between the weather events that we are now experiencing and those that occur in surrealist and magical realist novels: improbable though they might be, these events are neither surreal nor magical. To the contrary, these highly improbable occurrences are overwhelmingly, urgently, astoundingly real. The ethical difficulties that might arise in treating them as magical or metaphorical or allegorical are obvious perhaps. But there is another reason why, from the

[30] See Closs (2020) 92 on the ideological freighting of Phaethon in the first century AD.

[31] Hinds (1987) 26–9 offers a subtle and foundational argument for satirical reading of a relationship between Nero and Phaethon here. See Closs (2020) 123–7, including extensive bibliography. Closs (2020) 126: 'Lucan is at pains to protest that the earth (*tellus*/*Tellus*) is *not* afraid of Nero's taking over the role of the Sun — yet she might do well to be afraid, it is implied, because of her recollection of the disastrous outcome of the last attempted "succession" to the role of solar *auriga*' (italics original). Some scholars have argued for a Neronian rehabilitation of the celestial journey as successful replacement of Phaethon's failure. See for example Duret (1988), Rebenich (2012).

> writer's point of view, it would serve no purpose to approach them in that way: because to treat them as magical or surreal would be to rob them of precisely the quality that makes them so urgently compelling — which is that they are actually happening on this earth, at this time.[32]

There are indeed elements of Ovid's Phaethon-story that could be described as surreal or magical, such as the monstrous Scorpion, wet with the sweat of black poison and threatening horrible wounds, who terrifies the charioteer so much that he drops the reins (2.195–200);[33] or the magnificent anthropomorphisation of the Earth who rises up from herself to complain, and shrinks back into herself when she can take the heat no longer (2.272–303); or indeed the chariot itself, which seems both to be and to carry the flaming ball of gas which is the sun, and to be separable from Sol himself, who is also the sun. This is central to how the *Metamorphoses* works, with its slippage between ontological levels not only in the very fact of metamorphosis, but in every aspect of its poetry: for example, in gods such as Achelous who might be simultaneously water, hornless bull, and humanoid, or in paradoxes like Erisychthon ourobotically eating himself. The point about Phaethon's destructive fire, however, is that it is *not* metaphorical. That is, within the super-narrative of the *Metamorphoses*, the fire is something that is actually happening, really burning everything it touches. This literal fire stands in stark contrast to the fiery imagery in the description of Sol's palace in the opening of the book: as the poem moves from ecphrasis to narrated reality, so fire becomes real. This does not stop Phaethon's fire additionally having metaphorical or symbolic potential, but does draw attention to how the literary reader is drawn by this episode into quasi-experiential perception of when imagery becomes real.[34] In this section, I explore the relationship between Phaethon's real fire and the similes of conventional epic.

The non-symbolic ontology — the actuality — of Phaethon's fire is thrown into relief by contrast with the fact that forest fires in previous epic occur all-but-exclusively as similes, that is in contexts where they are *not real*

[32] Ghosh (2016) 27.

[33] See Barchiesi (2009) on how the Phaethon episode 'brings the poetics of licentious imagination to the level of cosmic sublimity' (163). His argument, that 'transgressive and outlandish fantasies are ultimately based on the familiar, the domestic, and the regular' (164), becomes a case for reading Sol's scary sky as 'a version of Central Rome and its transformations in the Augustan age' (188).

[34] I describe it as '*quasi*-experiential', since even the most committed phenomenologist of reading needs to acknowledge the gulf between text and reality.

at the level of the narrative.[35] The point here is to distinguish between (a) fire which is literal at the level of the main narrative, such as the fire which burns the city of Troy; (b) fire which is symbolic at the level of the main narrative, such as that which appears on the heads of Ascanius and Lavinia in *Aen*. 2.681 and 7.73 respectively; and (c) fire which, contained within a simile, is literal in the vehicle (at the narrative level of the simile), but symbolic in the tenor (representing, usually, martial valour).[36] What we are seeing with Ovid's Phaethon, I suggest, is an allusion to those similes, but in such a way as to highlight that this time the fire is for real.

Most fire in epic is military: flames and smoke pervade the quintessential narrative of military destruction in *Aen*. 2, for example, while 'burning the ships' becomes an iconic act and narratival pivot in both *Iliad* and *Aeneid* — with fire that is straightforwardly real.[37] There are six occurrences of destructive non-military fires in the *Iliad*, five of them forest fires and one an accidental urban fire.[38] All of them are similes — similes, be it noted, for warrior heroes and military activity: *Iliad* 11.155 has a forest fire as a simile for Agamemnon; 14.396 simile for the Trojans and Achaeans; 15.605 for Hector; 19.375 for the gleam of Achilles' shield (blazing fire high in the mountains seen by sailors); 20.490 for Achilles; and *Iliad* 17.735, where an urban fire is a simile for the conflict. Likewise in the *Aeneid*, thick though it is with metaphorical fire, all the descriptions of literal but non-military destructive fire occur in similes. When Aeneas first perceives the *real* fires attacking Troy, he compares himself, in a simile, to a shepherd gazing in horror at a crop fire or a torrential mountain flood (*Aen*. 2.302–8).

> excutior somno et summi fastigia tecti
> ascensu supero atque arrectis auribus adsto:

[35] The relationship between textuality and reality is crystallised in the case of similes, with their marked exploration of vehicle and tenor as well as of literal and figurative language. Exemplary in this regard is Hardie (2002) for example, see his comment (65) on Hyacinthus, '[t]he pressure of Apollo's grief works on the subject right for conversion back into the textuality from which he had emerged'. See also Feldherr (2010) and (2020). On similes in the poem generally, see von Glinski (2012).

[36] Closs (2020) 64–7 integrates the forest-fire similes of the *Aeneid* into its wider fiery symbolism.

[37] The other significant role for fire in epic is to cremate the dead, which regularly needs gargantuan quantities of wood to be felled. Fire is also used in a controlled way for ritual immolation and cooking, although very little mention of cooking fires appears directly.

[38] See Freitag (2016). Apollonius 1.1026–8.

> in segetem ueluti cum flamma furentibus Austris
> incidit aut rapidus montano flumine torrens
> sternit agros, sternit sata laeta boumque labores
> praecipitisque trahit siluas; stupet inscius alto
> accipiens sonitum saxi de uertice pastor.
>
> I am shaken from sleep and I climb up to the rooftops, and stand with ears erect: just as when flame has fallen on the crops as south winds rage or a swift torrent from a mountain river spreads over the fields, the fertile sowings and the labours of the oxen and drags the woods headlong; the unaware shepherd hearing the sound from the high top of a rock is stupefied.

The description of this real (within the simile), destructive but non-military fire is very brief, outweighed by the river in spate that does even more damage. An odd simile in *Aen*. 10 involves a shepherd deliberately burning a field in a high wind, setting fire to it in different places, in order to ensure that the blaze takes (*Aen.* 10.405–9). Finally, at the *Aeneid*'s climax, there is a fire-simile very much in the Homeric style, introduced to describe Aeneas and Turnus on the battlefield (*Aen.* 12.521–5), as being like fires in dry scrubland or (as in *Aen*. 2, above) like rivers in spate. In Virgil's epic, forest fires make impressive (and suitably Homeric) similes for military action, but belong to the world of symbol and aesthetic construction, rather than material damage. All these examples of burning the natural world are distanced from the main narrative in which they arise, by the very fact of being similes: that is, figurative language which constructs them as at a further remove from the emotive engagement of the reader. That is true also for one other instance of a forest fire in the *Metamorphoses*. Ovid also uses the simile of a forest fire, in a context where the fire stands, in the manner of this badly behaved epic, not for military valour but for erotic excitement. This is in the introduction to the story of Apollo and Daphne, when Apollo's amatory inflammation is compared to stalks in a harvested corn-field, bursting into flame as a result of a traveller's dropped torch (*Met*. 1.492–6).

Let us contrast this now with Ovid's Phaethon. This story constitutes an epic journey, certainly, an epic shipwreck and a magnificent failure. It evokes the tradition of the forest-fire simile, but it is most emphatically not

a simile.[39] It is the real thing, fire destroying the earth. As such, it is an example of a feature we shall see several more times in consideration of this passage, which is that topoi, indeed clichés, are evoked but distorted. This phenomenon can be seen also in the similes that do occur within the narrative of Phaethon's flight. The narrative contains three short similes within the 154 lines from the moment Phaethon mounts the chariot until he is blasted out of it (2.150–318).[40] Of those, one is so short, and in its vehicle so close to its tenor, as barely to constitute a simile: *uelut e furnace profunda* ('as if from a deep furnace/oven', 2.229). The other two both compare Phaethon to a ship. Scholars have noted that the entire extended passage plays into the role of 'epic shipwreck', with which, after the *Odyssey* and the *Aeneid*, an epic should begin.[41] It does so, moreover, as a distorted repetition of the Flood in Book 1, which itself alludes to the shipwreck topos — a scene that will be repeated 'for real' much later in the literal shipwreck of Ceyx.[42]

At the beginning of the journey, the chariot, lacking the expected weight of the heavy sun-god, is compared to unladen ships which are unstable as a result (*Met*. 2.163–4):

> utque labant curuae iusto sine pondere naues,
> perque mare instabiles nimia leuitate feruntur ...
>
> and as curved ships waver without their proper cargo, and are carried over the sea unstably by their excessive lightness ...

Later, Phaethon is like a boat buffeted by the wind (*Met.* 2.283–6):

> ita fertur ut acta
> praecipiti pinus Borea, cui uicta remisit
> frena suus rector, quam dis uotisque reliquit.

[39] This, despite the fact that, according to Gärtner and Blaschka (2020) 749, the *Metamorphoses* uses more similes than its predecessors, a phenomenon that they ascribe to Ovid's desire to 'situate[s] his epic in its (mainly genre specific) intertextual context'.

[40] There is a fourth simile after the thunderbolt. Phaethon as he falls is compared to a shooting star in a serene sky which seems to fall even though it has not fallen (*Met*. 2.321–2), a case of excessively close tenor and vehicle.

[41] Barchiesi (2005) 237.

[42] On storms at sea in ancient epic, see Biggs and Blum (2020). They discuss the *Met*. 1 flood under this heading, at 144–5, and address the true sea-storm of Ceyx, at 145–8.

> And so he is carried like a ship-pine driven by headlong North Wind. Its pilot has dropped the conquered reins and relinquished it to the gods and his prayers.

Although the simile is brief, note the metonymical designation *pinus*, which makes Phaethon momentarily a tree; observe also the transferred language of *frena*, which belongs more directly to the charioteer than it does to the pilot of the ship. These brief similes remind us of the epic tradition and of the intertextual and conventional roles played by Phaethon, but at the same time they throw into relief the non-metaphorical realities of burning, that constitute most of this part of the story.[43]

4. The Earth Burns

The image of a burning planet, in the contemporary world, is both a symbolic and a literal icon of climate change: symbolic, because an increase in global temperature of only a few degrees centigrade, while nowhere near bringing it to burning point, will cause (is already causing) widespread devastation; literal, in that one aspect of that devastation is the increase in size, frequency, and ferocity of forest fires. In this section and the next, I look in closer detail at Ovid's account of the effect on the biosphere of Phaethon's disastrous journey, to draw out the fact that and the manner in which aspects of the text speak to the Anthropocene reader.

Throughout the account of Phaethon's flight and the resultant conflagration, narrative focus swerves between very close engagement with the charioteer himself and a broad viewpoint that encompasses the whole world. In brief, the narrative switches from the individual at 2.169–70, to the cosmic world at 171–7; back to Phaethon at 178–200; to the horses (and the astonished Moon) at 201–9; back to the whole world (especially mountains) at 210–26; over to Phaethon alone at 227–34; and then back to the big

[43] There may be a coda to this tale of Phaethon and the (non-)simile to be found in a fragment of Lucan's lost *Iliaca* 6 Courtney, a simile where Phaethon is the vehicle rather than the tenor. Someone is described as *haud aliter raptum* than Phaethon was when the gods saw him flashing through the heavens, as the *ardens terra* paradoxically gave light to the sky (text as in Courtney (1993) 354). Slightly more weight is given to the burning earth than in most snippets of the Phaethon myth. Courtney points out a link in *terra dedit caelo lucem* with *Met*. 2.329–32, when the sun refuses to shine in response to the death of Phaethon and 'the fires provided light and so there was some benefit in that evil'.

picture (especially rivers and seas) at 235–71; at which point the focus is both narrowed to a single point and expanded to the totality when personified Earth intervenes (Earth being both singular as person and universal as 'the world'). The global perspective is in keeping with the epithet of Sol as 'all-seeing'[44] and therefore with the viewpoint which Phaethon thought he could experience by driving the chariot. What seems to happen, however, is that whenever the young man tries to take in the panoptic vision from his unique vantage point, he cannot face what he sees and turns in on himself, drawing the reader with him.

Scalar inversion of this nature, lurching from the small and close to the incomprehensibly huge, is central to the insights of ecocriticism. Both ends of the scale are highly resistive to communicative representation, constantly threatening to collapse into banality or dismissible fantasy, yet also necessary in order to address the greatest challenges. Global heating's scalar enormity is so hard to process, whether in fiction or in 'factual' newsreels, in part because the damage both falls unevenly on different communities, and is caused unevenly by different communities.[45] The idea of a panoptic view, such as that briefly experienced by Phaethon, is much less imaginatively accessible for first-century readers than it is for contemporary readers, to whom it is domesticated by familiarity. For ancient readers, it is far outside the human scale, with a degree of the uncanny that modern readers need to make some effort to appreciate. When, early in the narrating time of the journey, the chariot reaches the top of its arc, Phaethon achieves in the poet's imagination what no human will experience for nearly 2000 years, sight of the Earth from outside. The 1969 image of planet Earth, taken from space by astronauts on the Apollo 10 mission, was regarded earlier in ecocritical history as an icon of positive messages about the 'fragility and wonder' of the planet.[46] It is an image with which many of us moderns have grown up.

[44] E.g. *Met*. 2.31: *Sol oculis iuuenem quibus aspicit omnia uidit*.

[45] Ghosh (2016) 115: 'Although different groups of people have contributed to it in vastly different measure, global warming is ultimately the product of the totality of human actions over time.' He regards this relationship between totality and individuality as one of the great challenges for the novel's capacity to represent climate change. Heise (2008) addresses the problem of the conflict between the local and the global in environmentalist literature, proposing 'eco-cosmopolitanism' as the way forward.

[46] See, for example, Bate (2000) 282. The image should be problematised by awareness of the huge ecological cost of the space mission and its embedding in the US military, a source of mind-blowing ecological damage and lack of accountability, as well as by its artificiality.

A large proportion of contemporary readers of Ovid (though not of the world's population) have also regularly looked out of an aeroplane window, making it hard for us to appreciate the enormity of what Phaethon sees when he looks down on the world spread out below him. The nearest parallel in ancient literature comes from the 'cosmic viewpoint'[47] desiderated by various strands of ancient philosophy. The fundamental difference, however, between Phaethon and the philosophers, be it Seneca in the *Natural Questions*, Epicurus in Lucretius' imagination, or Cicero's dream of Scipio in *Republic* 6, is that in all the philosophical constructions of the cosmic viewpoint the description is cognitive rather than experiential, and is precisely dependent on a division between mind and body. Phaethon's viewpoint, by contrast, is terrifyingly embodied.[48] He glimpses, but cannot process, the scalar relationship between his body and the universe. Such, perhaps, is also the risk of simplistic globalisation in the popular cartoon images of the crying, sweating, burning, dying Earth, as much as it is in the 'blue pearl' romanticisation of the 1969 images.

Unable to face the sight, Phaethon takes refuge in clichéd responses to fear and death. The cliché is twisted: darkness covers his eyes, but in a world of light inaccessible (*Met*. 2.178–81):

> ut uero summo despexit ab aethere terras
> infelix Phaethon penitus penitusque patentes,[49]
> palluit et subito genua intremuere timore
> suntque oculis tenebrae per tantum lumen obortae.
>
> When indeed unhappy Phaethon looked down from highest heaven on the lands spreading out far, far below, he grew pale and suddenly his knees

Good discussion of Earth images and their complex role in environmentalism at Garrard (2023) 188–94, as also in Clark (2015) 35–6.

[47] Williams (2012), a rich exploration of Seneca's *Natural Questions*.

[48] See Williams (2012) on this separation of mind and body, together with the moral implications of the 'serenity of the detached, cosmic viewpoint' (10).

[49] *iacentes* also has manuscript support, to which Tarrant says *fort. recte*, and compares *Aen*. 1.223–4. Barchiesi (2005) 251–2 agrees that *iacentes* would continue the allusion to *Aen*. 1.223–4, the viewpoint of Jupiter looking out over the world as Aeneas is being shipwrecked, but regards *patentes* as more original and working effectively with *penitus penitusque*. If the divine viewpoint of Jupiter is evoked here, it would express the painful contrast between Phaethon's intention and his actuality.

> trembled with fear and among so much light darkness rose up over his eyes.

Darkness covering the eyes, both literally and as a cultural cliché, is a reaction which we should easily recognise from all too many modern responses to climate change.

As the power of the sun slips from Phaethon's grasp, Earth catches fire, and the perspective switches from the individual to the consequences for the world of this act of human arrogance. In accordance with Ovid's society's understanding of the natural world, it is the tops of mountains that burn first because they are closer to the sun. The cracks in the soil are an extrapolation from phenomena that must have been regularly observed in the Italian summer, now taken to extremes by the extreme situation (*Met.* 2.210–13):

> corripitur flammis ut quaeque altissima tellus
> fissaque agit rimas et sucis aret ademptis;
> pabula canescunt, cum frondibus uritur arbor,
> materiamque suo praebet seges arida damno.
>
> The Earth, wherever it is highest, is seized by the flames and splitting drives open cracks and grows dry as its moisture is removed; the fields grow white, the tree burns with its leaves, the dry crops provide material for their own destruction.

The emphasis here is on a material world that is not human but is almost palpably alive, its natural moisture being also its lifeblood. Dry, cracked soil, like the skin of an elderly person, may be familiar at annual or biographical timescales, but the speed at which it now occurs encapsulates the horror of the situation, especially to observers who have not experienced time-lapse photography, and invites us to contemplate the material bodiliness that we both do and do not share with the world.

The interplay between different kinds of material bodiliness is surely the core of the *Metamorphoses*. This line (211) is evoked, I suggest, later in the poem when the tree that is Myrrha is finally able to give birth to Adonis: *arbor agit rimas et fissa cortice uiuum/reddit onus, uagitque puer* ('the tree opens cracks and from the split bark gives forth the living burden, and the child wails', 10.512–13). That passage contains one of the most extreme cases of multiple category-identity in this poem, entirely built as it is on fluidity of categories: the Myrrha-tree is both a tree and a woman as she gives

birth.[50] At 2.211, by contrast, the world (*tellus*) is living, but not human or anthropomorphised.[51] While Myrrha is fairly easy to recognise as both tree and woman, the Earth's materiality is less straightforwardly assimilable to our human bodiliness, because its cracks open up the 'fabric of reality'.[52] *Rima* occurs again within the Phaethon episode at 2.260, when the rifts allow light to penetrate to the underworld.[53]

After the cracks in the fabric of the universe/the skin of Earth, interaction between different elements of the biosphere continues in the next line, as does the destructive speeding up of time (*Met*. 2.212):

> pabula canescunt, cum frondibus uritur arbor ...
>
> The fields grow white, a/the tree burns with its leaves.

The line starts with fields, but using a word (*pabulum*) that only metonymically has that meaning, most often denoting food, especially for animals, and especially domestic animals.[54] This is the world of cultivated nature, that *tertium quid* between 'culture' and 'nature'.[55] But *pabulum* is also fuel for the fire.[56] Within the space of a single word, the food destined for humans and other animals is eaten up by the fire. The cultivated potential of these fields is further enhanced by the verb *canescunt*, 'grow white', in an image that most clearly evokes the idea of crops ripe for harvest.[57] Out of context,

[50] For this element of the Myrrha-story, see Sharrock (1996) and (2023).

[51] See Section 6 on the personification of Tellus.

[52] This hyperbolic conceit is popular in science fiction, for example in *Doctor Who* Series 5 *The Eleventh Hour* (2010). For the conceptual imagery of this 'fabric', cf. the question in the opening paragraph of Seneca's *Natural Questions* Book 2, as to whether the celestial sphere is solid: *solidumne sit caelum ac firmae concretaeque materiae an ex subtili tenuique nexum*.

[53] The word for the cracks, *rima*, is not common in poetry before Ovid. It occurs once each in Plautus, Terence, Ennius, and Horace; twice in Virgil and Propertius; not in Lucretius or Catullus. Elsewhere in Ovid, it occurs six times in the *Metamorphoses* and twice in the *Tristia*. It is, however, used by Manilius in his description of the Milky Way (1.718–20).

[54] TLL *pabulum* 1A 1. It is etymologically connected with *pascere*.

[55] The ecocritical debate regarding the ontological status of nature, embodied especially in Donna Haraway's coinage, natureculture, is too large subject to address here. See Garrard (2023) 17, 223.

[56] TLL *pabulum* 1B2.b.

[57] As noted by Barchiesi (2005) 253, who compares *Met*. 1.110 and *Fast*. 5.357. Cf. also *Am*. 3.10.39 and *Ars* 3.67.

that would surely be the interpretation of the phrase. In context, however, the term has almost the opposite meaning, of ageing and decay, as the labours of farmers turn to ashes. *Canescunt* could also evoke human ageing,[58] but, despite the potential for evoking sympathetic links between the human and more-than-human world, I would like to resist the temptation towards anthropocentricity here. The whole biosphere is subject to this sudden destruction.

After the semantically complex opening to the line, the second half is stark in its simplicity. A single tree burns with its leaves: no decoration, no transferred language, no botanical or aesthetic elaboration. Just a single tree standing for all life on earth.[59] This remarkable piece of hyper-simplification stands in contrast to the majority of the poem, which is thick with specified tree-species, many of which are metamorphosed humans or nymphs. It is followed by a line that could be regarded as a gloss on the sentence it completes: *materiamque suo praebet seges arida damno*. With *seges* we have returned to the world of cultivated land, while *materiam* evokes ὕλη, 'woodland, forest', hence the material from which things are made, and extrapolated by Aristotle as the matter of the universe.[60] This fire is causing the world to consume itself.

Once the fire has begun, it spreads throughout the world. The next two-and-a-half lines offer a strangely abbreviated account of the destruction of civilisation (*Met.* 2.214–217).

> parua queror: magnae pereunt cum moenibus urbes,
> cumque suis totas populis incendia gentis
> in cinerem uertunt.

[58] For example, *Am*. 1.8.52. The related semantic field of the adjective *canus* applies to *cinis*, *puluis*, *harena*, as well as elderly hair and ripe grain. Note in particular *Ars* 2.439–40 *ut leuis assumptis paulatim uiribus ignis/ ipse latet, summo canet in igne cinis* … a simile for a smouldering (erotic) fire that can be rekindled. Julene Abad Del Vecchio points out to me that the word enacts sudden speeding up the process of ageing. Cicero's *De Legibus* begins with the image of trees, and the oak in particular, 'growing old' (*quercus … canescet saeclis innumerabilibus*), a prospect now irremediably precluded by the fire.

[59] As Tom Phillips has helpfully suggested to me, this sudden hyper-simplification following complex poetic language resonates with a phenomenon identified by Silk (1996) 459–60, in his argument for the existence of a diachronic and cross-cultural 'tragic language' within the Western tradition (459).

[60] LSJ ὕλη.

> I am complaining about small things: great cities perish with their walls, and the fires turn whole races with their peoples into ash.

The intrusion of the narrator here, with the first-person verb *queror*, is bizarre in what is otherwise an ostensibly objective narrative. Why now? And what are the *parua*? It is hard to see the burning clouds, mountaintops, and fields of the previous lines as either physically small or trivial, so the point might be to mark the movement out from the specific, focused on the single tree of 212, into the general and global. The immediate contrast is with the *magnae ... urbes* which perish with their walls, just as the tree burned with its leaves. The fire turns whole nations to ash, just as the *pabula canescunt*. But within the shortest scope, for this is the end for the works of man, the remaining 80 or so lines of description being devoted to burning nature. Perhaps, then, the contrast between *parua* and *magnae* may instead be felt as ironic. On that reading, the first-person subject of *queror* (unique in this passage) would highlight the human speaker of the entire episode/poem precisely, to associate him with these cities and peoples, human culture, which are the true 'small things', while it is everything else — the more-than-human world — which suffers as a result of human activity. Giving over just one or two percent of the account to civilisation might, for one perspective, be quite appropriately proportioned. Perhaps the Ovidian viewer has, for a brief moment and not without irony, taken on the detached perspective that is the goal of the Stoic natural scientist, rising up above the world in order to perceive, with 'sublime detachment',[61] how small are the things of men — except that the *urbes* are *magnae* and the fire destroys *totas ... gentes*. Human culture is given a tiny part of the narrative, but from within those meagre two lines it is 'large' and 'whole'. Deciding what counts as 'small' and 'large' is part of the scalar conundrum.

We have had high lands, fields, a single tree, dry crops, briefly cities and whole peoples turned to ash, then back to woods and mountains, which turn into a catalogue. This starts, following on from the *arbor cum frondibus* and the *magnae urbes cum populis*, with *siluae cum montibus*. One might have expected *montes cum siluis*, since it is logical that it should be the woods that burn, rather than the mountains themselves. In the succeeding catalogue, however, it is indeed named mountains that *arde[n]t* (*Met.* 2.217–26).

[61] Williams (2012) 116.

siluae cum montibus ardent,
ardet Athos Taurusque Cilix et Tmolus et Oete
et tum sicca, prius creberrima fontibus, Ide
uirgineusque Helicon et nondum Oeagrius Haemus;
ardet in inmensum geminatis ignibus Aetne
Parnasosque biceps et Eryx et Cynthus et Othrys
et tandem niuibus Rhodope caritura Mimasque
Dindymaque et Mycale natusque ad sacra Cithaeron.
nec prosunt Scythiae sua frigora; Caucasus ardet
Ossaque cum Pindo maiorque ambobus Olympus.
[aeriaeque Alpes et nubifer Appenninus.][62]

The woods burn with their mountains, Athos burns and Cilician Taurus and Tmolus and Oete, and Ida, then dried out, though previously full of springs, and virginal Helicon [i.e., of the Muses], and Haemus not yet belonging to Oeagrus; Aetna burns without measure, its fires doubled, and twin-peaked Parnassus and Eryx and Cynthus and Othrys and Rhodope, at last losing its snow, and Mimas and Dindyma and Mycale and Cithaeron born for sacred rites. Its frosts are no use to Scythia; Caucasus burns and Ossa along with Pindus, and Olympus greater than both of them. [And the airy Alps and cloud-bearing Apennines].

Barchiesi's (2005) commentary is more interested in the catalogue of mountains than in the conflagration. The chaotic organisation, which Barchiesi identifies in this panoramic view of the known world, seems designed to replicate the destruction of order, leading to ancient chaos. In these burning mountains, disordered and out-of-control, we may be intended to perceive a contrast with the opening of Aeschylus' *Agamemnon*, when a fire leaping from mountain to mountain communicates the message of Troy's fall and the victory of the Greeks.[63] There, fire functions usefully (for humans) through controlled geography in the service of human mastery.[64] Here, the fire is out of control and the catalogue likewise.[65] The human control here is that of naming, and fitting names to verse, bilingually. The problem is that

[62] Tarrant's bracketing is not accepted by Barchiesi (2005) 253–5.

[63] I am grateful to John Taylor for the suggestion.

[64] Within the play, the positive message is ironised by negative undertones associated with the fall of Troy and the future death of Agamemnon.

[65] See Kyriakidis (2007) 46–9, who describes what he calls the 'erratic pattern' of the catalogue.

no amount of clever versification can put out the fires. The text plays out the inadequacy of human linguistic naming to control the destruction.

While it is true that there is virtuosic extravagance in the catalogue, which could be described as playful, nonetheless I would draw attention to the vignettes that serve to build up the imaginative picture of a world no longer protected from the sun's rays.[66] A running theme throughout the episode is the interaction of fire and water. Ida, famous for its epithet of 'many springs',[67] has now gone dry (218), foreshadowing the cataclysmic evaporation which will be developed 20 lines or so later. Etna has double fire (220), its own volcanic activity adding to that from the chariot of the sun, and perhaps foreshadowing the burning rivers in the subsequent riverine catalogue, if we should at least partially see them as lava flows. Then there are the cold places. Snowy Rhodope is, this time only, lacking in snow (222), and it is no help to Scythia to be cold (224). These frozen refuges are lost, a problem currently causing severe difficulty for wildlife in many high and far northern/southern regions. The victory of unnatural heat over natural cold was the very first sign of trouble, almost as soon as Phaethon set out on his crazy journey. He lost control almost immediately (2.169–70) and (*Met.* 2.170–5):

> tum primum radiis gelidi caluere Triones
> et uetito frustra temptarunt aequore tingi,
> quaeque polo posita est glaciali proxima Serpens,
> frigore pigra prius nec formidabilis ulli,
> incaluit sumpsitque nouas feruoribus iras.
>
> Then first the chill North* warmed under the rays, and tried in vain to sink into the forbidden sea, and the serpent which is situated right next to the glacial pole, previously sluggish with cold and terrifying no one, grew hot and assumed new anger in its rage.

Triones, which I have translated 'North*', denote the principal stars of the constellation Ursa Major, as is clear from the subsequent line, proleptically referring to the myth of Callisto — the story following next after Phaethon

[66] McPhee (2019) offers a slightly different response to the nuance of the undoubted playful erudition in both these catalogues, for example perceiving a potential rape-threat in the temporal dislocation at 219.

[67] Barchiesi (2005) 254 refers to the famous Homeric epithet, *Il*. 8.47, 9.183.

(*Met*. 2.409–530).[68] Although Phaethon is literally flying through the constellations at this point, the effect of this imaginative doubletake between heaven and earth is, for modern readers, to evoke the melting of the polar ice caps. The proleptic allusion to Callisto, banned from setting into the ocean by the anger of Juno at her husband's rape of the unlucky nymph, gains a further prolepsis for the contemporary reader, for whom the 'calving' of melting icebergs into the sea is a sublime and terrifying sign of climate change.

5. Burning Rivers and Disappearing Seas

After the catalogue of mountains, the narrative returns to Phaethon's perspective. He sees and realises the full horror of the situation: the whole world is burning. But he is now so bound up in the effect on himself that he is helpless to take any action and is simply dragged along by the horses, blinded by smoke despite the excess of light (*Met.* 2.227–34):

> Tum uero Phaethon cunctis e partibus orbem
> adspicit accensum nec tantos sustinet aestus
> feruentisque auras uelut e fornace profunda
> ore trahit currusque suos candescere sentit;
> et neque iam cineres eiectatamque fauillam
> ferre potest calidoque inuoluitur undique fumo,
> quoque eat aut ubi sit picea caligine tectus
> nescit et arbitrio uolucrum raptatur equorum.
>
> Then indeed Phaethon sees the world set on fire on all sides, nor is he able to sustain such heat, and as if from a deep furnace he drags in boiling breezes with his mouth, and feels his own chariot starting to burn; now he can no longer bear the ashes and the sparks thrown out and on all sides he is rolled around in the hot smoke, and, covered in pitchy darkness, he doesn't know where he is going or where he is, and he is snatched along at the whim of the flying horses.

[68] Barchiesi (2005) 251 points out that the bear, as an Arctic constellation, ought to have least need to cool down. See also Wheeler (1999) 128. I note Wheeler's comment: 'when Phaethon loses control of the solar chariot and veers off course in Book 2, the first sign of global warming is recorded near the North Pole'.

Notice how the chariot, despite the fact that it in some sense 'is' the sun, itself starts to burn — a counter-logical duplication which repeats and caps the *geminatis ignibus* of Aetna (220). As Phaethon disappears into the pitch-blackness of smoke (232–3), the narration swerves out again to a global perspective. For a moment, the narrator adopts the pose of a detached scientific commentator, attributing the dark skin of Ethiopians and the desertification of Libya to the solar chaos (*Met*. 2.235–8).[69] Thereafter, however, although the perspective remains global, the tone becomes both emotive and mythological/symbolic (*Met*. 2.238–40):

> ... tum nymphae passis fontesque lacusque
> defleuere comis: quaerit Boeotia Dircen,
> Argos Amymonen, Ephyre Pirenidas undas.
>
> ... Then the nymphs with their dishevelled bewailed both springs and lakes: Boeotia seeks Dirce, Argos Amymone, Ephyre the waters of Pirene.

Grieving nymphs and semi-personified geographical features seek each other in vain, the distinctions between human-adjacent beings and the material world being elided both by language and by their mutual suffering. Such mutuality between 'humanity' and the rest of nature speaks more closely to a reader in the 21st-century than even quite recent times: this is one of the moments regarded as 'comic' by Galinsky.[70] The human-nymph-springs morph into another catalogue, this time of rivers. Again, the main interest of the commentators is on geography and on linguistic and metrical erudition.[71] Such 'Hellenistic playfulness' of Greek names in Latin metre is, I suggest, a diversion from the conceptual image of burning rivers.

After the Libyan desert's loss of water, the weeping of nymphs, and the disappearance of personified springs, not even broad rivers are safe (*Met*. 2.241–2). One might expect a realistic account of riparian vegetation catching fire, or perhaps of the rivers boiling, but these rivers are *burning*: *Tanais fumauit* (242), *arsurus iterum Xanthos* (245), *arsit ... Euphrates ... arsit Orontes* (248), and the gold-bearing Tagus now *actually* flows with gold (251). It seems as though it is the water itself that burns. Admittedly, the lack of clear distinction between steam and smoke in ancient language

[69] Barchiesi (2005) 255 draws attention to the etymological play in *Aithiopes* meaning 'burnt faces'.

[70] Galinsky (1975) 132.

[71] Barchiesi (2005) 255; Bömer (1969) 301–2.

(*fumare*) would perhaps allow Tanais to boil rather than burn, but *ardere* is a word of fire. In this thought-experiment, the solar disruption caused by Phaethon's flight has perhaps made literal the illusion created in normal times by sunset reflecting off the water's surface.[72] If the sun came so close to Earth, who knows what could happen?

The obvious parallels for burning rivers in ancient literature are the Xanthus in conflict with Achilles, when the river is attacked with fire by Hephaestus at the request of Hera; and the nominally-determined Phlegethon in the underworld. Allusion to the Iliadic passage (21.331–76), or at least to the myth, is explicit in the proleptic phrase *arsurus iterum Xanthos* (245).[73] The Homeric account, for all its divine motivation, is rather more ordinarily realist than Ovid's burning rivers. Hephaestus' fire is undoubtedly supernatural, but it maintains a grip on reality/realism by its emphasis on the burning of vegetation around the river, rather than the water itself, at least until the river becomes more strongly personified. The fire begins on land, burning first the bodies of the dead and drying everything up, in remarkably positive language (*Il.* 21.342–9). Next the fire-god turns his attention to the river (21.349), but still it is the surrounding vegetation that burns, while the riverine fauna suffers (350–5). The river itself only starts to burn as he (the river) is about to speak (356). When it comes to a more extensive description of the river suffering from the heat, it is through a simile of cooking (361–4), and the water, more realistically, boils (365). In all, then, the Homeric scene offers a more familiar image of the effects of fire than we see in Ovid's burning rivers and molten gold.

Such rivers of fire evoke the infernal streams which ancient audiences may perhaps have perceived as like the flows of lava.[74] Phlegethon, the underworld river of fire, does not, of course, appear in our passage, because Ovid's rivers belong to the real, familiar world of human habitation. Virgil's underworld is where we see the fiery river *flammis ... torrentibus*,[75] while Virgil as narrator has himself invoked Phlegethon, alongside Chaos, the gods of the underworld and the silent shades, as Aeneas prepares to enter the

[72] Seneca *NQ* 1.15.5–7 offers an example of apparent burning which is in fact reflection of a magnificent sunset.

[73] On temporal play and temporal structure, see Zissos and Gildenhard (1999), Cole (2008), Farrell (2020).

[74] Hinted at by Horsfall (2013) 231, apropos *Aen*. 6.265.

[75] *Aen*. 6.550–1. See O'Hara (1996) 174–5. Horsfall (2013) 392, among others, draws attention to Socrates' description of underworld rivers of fire in Plato *Phaedo* 111c–112b.

underworld (*Aen*. 6.264–5). Primaeval Chaos, similarly, is the destination risked by Phaethon and the world (as Earth herself says, *Met*. 2.299). There is also a hint at the 'river of fire' in the description of the river Tagus, with its gold-deposits now turned into liquid gold (*quodque suo Tagus amne uehit fluit ignibus aurum*, 'and the gold which Tagus carries in its stream flows with fires', *Met*. 2.251). Ovid has previously referred to the *ripa benigna auriferi … Tagi* ('kindly bank of gold-bearing Tagus', *Am*. 1.15.34).[76] For the Tagus, however, little bits of gold dust have become the whole flowing, molten river. This flowing gold could be lava, an imagistic reflection of fire, or a counterfactual literal river of gold.[77] Lucretius has a passage in which a forest fire is instrumental in the discovery of precious metals, including gold (5.1241–57). The fire somehow opened up the deep places of the earth and a river of silver and gold flowed (1246–7). In these images of fire-water, the elemental categories of water and fire have lost the propriety of their separate spheres.

The catalogue of rivers in Ovid's Phaethon account does indeed show off its 'Hellenistic' learning and linguistic virtuosity.[78] Such a way of narrating through (distracting?) intellectual display exposes an awkwardness in this excess: should we smile at the playful 'solution' to the famous riddle about the source of the River Nile (he hid because he was terrified by the heat, 254–5), and grimace at the intrusion of Roman–Virgilian–Augustan propaganda about the future greatness for the Tiber (259)? Or does this display of human scientific erudition and nominal (i.e., name-driven) expropriation of the world contrast so uncomfortably with the underlying picture of climate-induced rivers of fire that it forces the reader to confront the inadequacy of human systems of nomenclature to control the world? As so often in the Phaethon episode, we are reminded of a bizarre feature in the chaos with which the poem opened, when human metonyms are assigned to elemental forces, *avant la lettre*. Before there was any differentiation, there was *unus … uultus*, a singular appearance, to the whole world (*Met*. 1.6), *quem dixere Chaos* ('which they called Chaos', 1.7) — who did? Then, at the ends of lines 10, 11, 12, and 14, the sun, moon, earth, and sea, which do not yet exist (1.10 begins with *nullus*, 11 and 12 with *nec*), are introduced

[76] It is a different river, the Lydian Pactolus, that will later be the subject of an aetiological myth about panning for gold (*Met*. 11.142–5).

[77] One reader suggested that the water could have all boiled off.

[78] Both Barchiesi (2005) 255–7 and Bömer (1969) 301–7 describe the geography and textual-scientific heritage.

with the anthropogenic and anthropomorphic nomenclature Titan, Phoebe, Tellus, Amphitrite. Together these features create a clash between the primaeval Chaos being described and the linguistic tropes of the description.

What role does the cultural trope of hyperbole play in facing environmental cataclysm? Ovid's first audience will have regularly observed the drying of soil, ponds, and even whole rivers during hot summers.[79] The cracks in dry earth that now appear, however, are on a different scale, so deep as to open a way through to Tartarus and bring light into the underworld (2.260–1). The result of all this drying is that the sea actually gets smaller, exposing underwater mountains and making islands bigger than they were previously (*Met*. 2.262–4):

> et mare contrahitur siccaeque est campus harenae,
> quod modo pontus erat; quosque altum texerat aequor
> exsistunt montes et sparsas Cycladas augent.
>
> The sea contracts and that which had once been ocean now becomes a field of dry sand; and mountains which once the deep main had covered now stick out and increase the size of the scattered Cyclades.

There may be a distorted allusion here to the more naturalistic and generically appropriate exposure of land by tumult of the sea, as described in Virgil's opening storm (*Aen*. 1.106–7):

> hi summo in fluctu pendent; his unda dehiscens
> terram inter fluctus aperit, furit aestus harenis.
>
> Some of them hang on the top of the wave; for others the gaping water opens up land between the waves, and the swell rages with sand.

[79] Evaporation was well understood in antiquity, at least in its own terms, even contributing to some theories of hydraulic cycles. See Brutsaert (2005) 559–69. Aristotle reports an experiment he did to show that seawater becomes fresh when evaporated (*Meteorologica* 2.358b.16), while evaporation also plays a role in his account of why the sea does not overflow, which he described as an old conundrum (*Meteorologica* 2.355b.19–32), specifically comparing the slow evaporation of the sea with the almost immediate evaporation of a cup of water spilt over a large table. Lucretius takes a similar line on evaporation of the sea, specifying the action of the sun and winds: *ualidi uerrentes aequora uenti/deminuunt radiisque retexens aetherius sol* (Lucr. 5.266–7).

Virgil's description may be hyperbolic, but it is hyperbole of normal constitution.[80] By contrast, Ovid's rearrangement of the marine geography far exceeds anything within the experiential purview of his audience. Even to a modern audience, with (at least second-hand) knowledge of huge changes in sea level over geological time, the speed with which the island typography is altered by the excessive heat is shocking. We could step away from it, belittling as absurd drying up of the oceans within the space of hours, or we could be jolted into understanding how a sudden change in climate can, by causing a hyper-exponential acceleration of time, disrupt the processes of natural phenomena in such a way as to undermine the planet's natural abilities at self-regulation. Nonetheless, the dried-up sea is in some sense the logical extension of the observable phenomenon of evaporation. In the contemporary world, by contrast, our worry from climate change is of the sea expanding and the islands or coastal regions getting smaller, even disappearing, both through melting of polar ice and through expansion of the warming ocean. As with Phaethon's world, the problem is the speed at which these things are happening, making the normal process of evolution and adaptation impossible.

Another concern mutual to ancient and modern readers is explored in the following lines, when marine life suffers from the warming of the oceans (*Met*. 2.265–8):

> ima petunt pisces nec se super aequora curui
> tollere consuetas audent delphines in auras;
> corpora phocarum summo resupina profundo
> exanimata natant ...
>
> The fish seek the depths and the curve-backed dolphins do not dare to raise themselves up into their accustomed breezes; the bodies of seals, lying lifeless on their backs, float on the top of the deep.

[80] Hardie (1986), throughout and especially in chapter 6, shows how hyperbole in Virgil's *Aeneid* brings cosmic significance to events within a fundamentally realist mode. See for example p. 251: 'Natural events that occur within natural limits may be amplified by reference to supernatural features of the universe. Thus the hyperbolic features of the storm in book 1 of the *Aeneid* are a result of the amplification of a natural storm at sea through reference to a larger, supernaturally inspired this arrangement of the *cosmos*.' Later (262), he says that the storm is perceived by the Trojans as a natural event, 'but with supernatural causation circumstantially presented to the reader'.

Here again we have play between the familiar and the shocking, the pictorial and the experiential. The image of dolphins frolicking and diving out of the water — its clichéd nature signalled by the self-referential *consuetas* — is offered, only to be deleted by negation and by the momentary mental identification provoked by *audent*. We are not observing playful dolphins from a distance, but being invited into a kind of embodied experience of their fear, before we step back a little to observe the lifeless seals, upside down and helpless. Barchiesi is right to draw attention to the inverted repetition of *adunata* from the flood,[81] and there is perhaps also an allusion to the devastation, likewise disruptive of the natural order, caused by the plague in *Georgics* 3 (*Georg.* 3.541–3).

> iam maris immensi prolem et genus omne natantum
> litore in extremo ceu naufraga corpora fluctus
> proluit; insolitae fugiunt in flumina phocae.
>
> Now the wave washes up, on the edge of the shore, the offspring of the huge sea and every race of swimming things, like shipwrecked bodies; seals, contrary to their norm, flee into the rivers.

Ovid's seals, lying helpless not on the shore but on the surface of the water that should have been their enabling environment, are painfully exposed to our gaze. We see both the dolphins and the seals divorced from customary frames of reference, as well as environment, such that perhaps the kind of embodiment to which we are invited here is not so much a ground of understanding, as in some ecocritical frames of reference, but rather a disruption of such.[82] I suggest that the text offers both possibilities: the terrified dolphins may offer us affective identification, but the belly-up seals turn us into horrified, but external, viewers.[83]

At this point, description is interrupted by narrative, with another twisted cliché: three times Neptune tries to raise his head above the waters, but three times he fails (*Met.* 2.270–1).

> ter Neptunus aquis cum toruo bracchia uultu
> exserere ausus erat, ter non tulit aeris ignes.

[81] Barchiesi (2005) 255–6.

[82] I am especially grateful to Tom Phillips here.

[83] On 'affective ecologies' see Weik von Mossner (2017).

> Three times Neptune had dared to stick out his arms along with his grim face from the waters, three times he could not bear the fires of the air.

In the face of this catastrophe, the sea god is barely more daring (*ausus erat*) than the dolphins (*audent*), and no more successful, but just as conventional. Barchiesi remarks that the attempt of Neptune here is a preparation for the intervention of a god, which will be realised in the appearance of Tellus.[84] He notes the surprising impotence of Neptune, reinforced by the echo of the sea god's successful intervention in the shipwreck scene at *Aen*. 1.124. Bömer offers a series of parallels from elsewhere in the Ovidian corpus for the double structure of 'three times he tried, three times he failed'.[85] Neither commentator, however, notes that the triple attempt is a topos of failing mortal heroes, not of major Olympian gods.[86] The twisted cliché displays the overwhelming force and violence of the sun, before which the ordinary forces of epic, human and divine, are inadequate.[87] Again there is a tension between the pictorial and the embodied: insofar as Neptune reprises his role from the *Aeneid* storm, his appearance here evokes that famously visual moment; but his failure, portrayed in an equally well-known way, to rise above the situation creates a relational space that provokes but tests our ability to make sense of it on the basis of our own muscle memory, embodied experience, as well as literary memory. Literary and bodily distortion, then, meet and mingle in nightmarish inadequacy.[88]

[84] Barchiesi (2005) 258.

[85] Bömer (1969) 309.

[86] The classic examples of 'three times he tried, three times failed' are Odysseus attempting to embrace his mother (*Od*. 11.206–8), and Aeneas similarly Creusa (*Aen*. 2.792–3) and Anchises (6.700–1). Patroclus' threefold efforts to scale the wall of Troy are pushed back by Apollo (*Il*. 16.702–4). Perhaps particularly comparable with Neptune's Ovidian experience is Dido's dying efforts to raise herself up, at *Aen*. 4.690–1.

[87] On the power of the sun, note especially *Met*. 2.84–7, where even Sol can barely control the horses; 156–60, where the horses seize the path and burst the clouds; 167–8, when the horses run out of control on realising that they have the wrong charioteer; 201–9, when they are one minute up in the highest heaven and the next minute down by the Earth (206–7); 309–10, as even Jupiter cannot summon up rain to put out the fire.

[88] I am particularly grateful to Tom Phillips for discussion of this section.

6. The Gaia Hypothesis

After Neptune fails to withstand the heat, Earth herself takes bodily form to complain of her treatment. It is easy to miss how surprising this apparition is.[89] Both in antiquity and in the modern world, we are very used to the idea of 'Mother Earth', with her near-relative 'Mother Nature', and even the 'great mother of the gods' (Cybele, slipping also into Rhea, who in Hesiod, *Theog*. 135 is the daughter of Gaia and, at *Theog*. 453, mother of the Olympian gods).[90] The ancient philosophical belief, Stoic and Platonic although not Epicurean, in celestial bodies, including earth, as sentient beings offers a (superficial) parallel for Lovelock and Margulis's 'Gaia hypothesis', that the earth and everything living on it constitute a single, self-regulating and self-balancing entity, entailing the co-evolution of biological and physical elements in the environment.[91] Moreover, the *Metamorphoses* has many anthropomorphic gods/geographical features, such as rivers and mountains, together with some remarkable personifications, such as Fames and Invidia. Hesiod's *Theogony*, a strong intertext for the early books of the *Metamorphoses*, is liberally peopled with similar phenomena, beginning with Earth and Sky (*Theog*. 45, 105) from whom the gods derive.[92] All this might lead us to take the appearance of Tellus too easily in our stride.

There are two reasons why we should not do so: first, the personification of nature is within contemporary ecocritical debate a fraught issue,

[89] Barchiesi (2005) 258–9 notes that the Earth Mother is relatively rare in traditional epic.

[90] The slippage between Earth/Tellus and Cybele as Magna Mater is expressed in Lucretius' discussion of atomic theory, in which *tellus* contains *in se corpora prima* (2.589), from which both water and fire can arise, hence life on earth; and *quare magna deum mater materque ferarum/et nostri genetric haec dicta est corporis una* (2.598–9). This leads into a magnificent description of the Idaean Mother. He ends the passage with a polemic against ascribing reality to personifications (2.655–60). Bömer (1969) 310 says on our passage that *alma* does not appear elsewhere as an epithet for Tellus. But note that Cybele is called *alma parens Idaea deum* at *Aen*. 10.252.

[91] Cicero explores Greek philosophical arguments for the animal nature of the world in *ND* 2. The Gaia name is, of course, explicitly based on the ancient myth. In his 2007 book, Lovelock explains the evolution of his Gaia-thinking from the 1960s to the 21st century. The statements in his glossary of the original 'Gaia Hypothesis' and the developed 'Gaia Theory' give succinct explanations. Formisano (2023) has developed a challenging reading of Ovid's Medea as a kind of Gaia figure within the *Metamorphoses*.

[92] At *Theog*. 117–18, Earth is described as the strong seat of all the gods and as herself giving birth to Sky, Ouranos. She then produced the mountains and the sea asexually, after which she became the mother of many gods through intercourse with Ouranos.

between its potential to promote environment-friendly behaviours through psychological identification with the nonhuman world, and on the other hand the potential for remaking the world in human guise to naturalise an anthropocentric view which gives a distorted picture of the world and humanity's place within it;[93] second, because, in fact, there is actually very little personification of Earth in Roman literature, and even, apart from the *Theogony*, relatively little in Greek literature. This is not because of a general absence of personification in Greek literature, particularly earlier Greek literature, but that a fully personified Gaia/Tellus has a much smaller role in ancient literature than a casual acquaintance would lead us to expect.[94] The metaphorical nexus of 'earth as mother' may be extremely common, but strong personification of the type produced here is rare. There is no good evidence for any scene similar to ours, in any of the large number of Phaethon narratives from the Greek and Roman worlds. Philostratus, writing in the early third century A.D., purports to describe a depiction of the myth in art, including a complaining Gaia, but this is likely to be derivative from our passage.[95] In Euripides' play, for example, there appear to have been extensive complaints and laments, but they are for Phaethon himself, not for any damage to the world, and are voiced by ordinary persons (be they humans or gods), rather than by personifications. They also reflect the situation after Phaethon's death, rather than a plea to stop the burning.

[93] On this huge issue, see for example Buell (1996), chapter 6, and Moore (2008) and (2017). Moore (2008) suggests that personification can act precisely to counteract anthropocentrism.

[94] Webster (1954) offers a convincing analysis of levels of personification in earlier Greek literature. He shows just how extensive personification in general was in this period, and how the slippages between different levels of abstraction, physicality, and personhood run into each other, in ways that I would dare to say no Hellenistic or post-Hellenistic poet explores as extensively as Ovid does in the *Metamorphoses*. There is the notable, if extremely brief, minimally personified *Tellus*, who, along with *pronuba Iuno*, witnesses the marriage of Dido and Aeneas at *Aen*. 4.166. Lowe (2008), a discussion of personification in Ovid, alongside Virgil, does not feature Earth.

[95] *Imagines* 1.11. The case for it being derivative is well made by Diggle (1970) 203–4. As regards Tellus, Diggle reports that there is some such figure on sarcophagi representing the myth, but 'never in this recalcitrant attitude'. The *Consolatio ad Liviam*, likely post-dating the *Metamorphoses*, is discussed by Closs (2020) as a reflection on the Phaethon myth, but the main interest is in Phaethon's mother and her grief for her son, in allusion to Drusus. The fire in question here is primarily the funeral pyre, rather than the damage Phaethon has done to the world. There seems to be no interest within this poem in the effects of the fire, only in the role of the elevated humans and in the transfer of empire.

What Ovid gives us is a maximally anthropomorphised personification of Earth, who, by the magic of metamorphosis/the *Metamorphoses*, simultaneously maintains traditional features of the material earth (*Met.* 2.272–8):

> Alma tamen Tellus, ut erat circumdata ponto,
> inter aquas pelagi contractosque undique fontes
> qui se condiderant in opacae uiscera matris,
> sustulit oppressos collo tenus arida uultus
> opposuitque manum fronti magnoque tremore
> omnia concutiens paulum subsedit et infra
> quam solet esse fuit fractaque ita uoce locuta est ...
>
> But kindly Earth, encircled as she was by the sea, among the waters of the deep and the springs drawn together on all sides, who had hidden themselves in the innards of their dark mother, arid as she was, lifted up her oppressed face as far as the neck and put her hand in front of her forehead, and shaking everything with a great tremor subsided a little and was lower than usual, and spoke thus with broken voice ...

She has a face that she can lift up, and can even attempt to shield with her hands from the attack of the sun; but she is also surrounded by ocean and contains the sources of rivers — who have hidden inside her (womb); at the same time, she is still the earth which quakes; and it is this hybrid entity, which only poetry could effectively conjure, who now reaches the pinnacle of personification by speaking.[96] Earth's speech is a complaint to Jupiter, beginning with a pose of submission, and flattery of him as the ultimate fire-wielder (*Met*.2.279–81). Next, she draws attention to the material details of her suffering (*Met.* 2.282–4):

> uix equidem fauces haec ipsa in uerba resoluo'
> (presserat ora uapor); 'tostos en adspice crines
> inque oculis tantum, tantum super ora fauillae.

[96] On this as rhetorical speech, see Barchiesi (2005) 258. He stresses the extremities of doubleness in the anthropomorphic representation of Earth, with humanoid body parts but also a tellurian capacity for earthquakes.

> ... hardly indeed can I open my mouth for these words' (the heat had stopped up her mouth); 'look at my burnt hair and at how much ash there is in my eyes and on my face.

Although the presentation is fully anthropomorphised, drawing on the Ovidian favourite of suffering which stops the speech of the speaker,[97] and although the ash covering Earth/the earth is all too literal, at the same time the *fauces* and the *crines* do double duty for Earth as anthropomorphic figure (mouth and hair) and the earth as geographical and botanical feature (narrow pass/cave and leaves).[98]

Earth's speech enumerates her hard work (the fruits, literally–metaphorically, of her labour) and great benefits bestowed on animals, humans, and gods (*Met*. 2.285–9).

> hosne mihi fructus, hunc fertilitatis honorem
> officiique refers, quod adunci uulnera aratri
> rastrorumque fero totoque exerceor anno,
> quod pecori frondes alimentaque mitia fruges
> humano generi, uobis quoque tura ministro?
>
> Are these the fruits that you give back to me, this the honour due to fertility and duty, that I bear the wounds of the curved plough and the hoes, and I am drilled all year long, that I provide leaves for the herd and crops for the human race, gentle nourishment, and for you also incense?

Although the language and the argumentative structure are conventional in a speech of complaint, and although the attribution of violence to farming is by no means unknown, particularly in the context of the end of the Golden Age, as also in its transferred sphere of marital fertility, what is remarkable is to have these conventions expressed directly by the victim — a victim who is herself the very foundation of the gifts of fertility. She is not the labouring farmer, but the source of the farm. What the farmer

[97] Natoli (2017) explores Ovidian loss of speech in detail. *Trist*. 1.2.14 is perhaps the starkest example, when Ovid, on the way to exile, presents himself as having his speaking mouth overwhelmed by the waves.

[98] For the former, TLL *faux* II A 2 (such as a narrow space, good for an ambush, as at *Aen*. 11. 516) and B *i.q. recessus, sinus*. For the latter, TLL *crinis* II B, a nice example being Colum. 10.165 *uiridi redimite parentem (i. terram) progenie, tu cinge comas, tu dissere crines*.

experiences as generative ploughing or digging, from Earth's perspective is painful and damaging bodily penetration.

Moreover, it happens *toto ... anno*, in a kind of distended present, lasting throughout the whole year and also repeated endlessly, so that individual segments have little meaning, as they are not demarcated through beginning and end. Just as spring may be perceived as both young (the new year) and ancient (primaeval), so the self-presentation of Earth distorts our human sense of time. There is something deeply unsettling about the kind of identification to which the reader is invited here, in these wounds felt repeatedly and yet lived through, by a being whose 'living' is anthropomorphically modelled on ours yet ontologically incomprehensible. To modern readers, an Earth complaining about over-farming is one raising an extremely serious issue, in a world where the soil is suffering serious degradation and where farming practices are a major contributor to global warming. The violence inflicted on the Earth by the process of farming, and still more of mining, was well known and a source of anxiety already 2000 years ago.[99] Although the problems of mining and farming which are wreaking devastation in the modern world are of vastly different scale from those impinging on the consciousness of Ovid and his original readers, reading this mythical account of a 'primitive' concern for the earth as living being gains added bite.

Earth's next move is to take up a pose of selfless concern for others who are suffering similarly, focusing first, and emotively, on the addressee's brother, i.e. Neptune, the sea/Sea, now reduced by evaporation (291–2), and who has just memorably failed to make a plea on his own behalf. But if Jupiter is not concerned about his own brother, Earth argues, he ought to worry that the fires will at last attack even his comfortable home (*Met.* 2.293–6). Even if he disregards everyone else, self-preservation requires Jupiter to act on global heating before it is too late. No kind of air-conditioned, gated enclosure will protect him from the force of the sun, now that it is completely out of control. Earth continues: if we don't act soon, we will return to primordial chaos — to the opening of the poem, yes, but with no guarantee that the same cyclical process of creation will repeat itself, at least not within a scale we can comprehend (*Met*. 2.298–300).

[99] Barchiesi (2005) 259 remarks that 'in the Roman tradition reference to the belly of the earth is often bound up in condemnation of progress and of the misuse of minerals'. He refers to Pliny *NH* 2.157.

> si freta, si terrae pereunt, si regia caeli,
> in Chaos antiquum confundimur. eripe flammis
> si quid adhuc superest et rerum consule summae.'
>
> If the seas, if the lands, if the heavenly realms perish, we are poured together into the primaeval Chasm.[100] Snatch out of the flames whatever still survives and take counsel for the highest affairs.'

Finally, Earth can no longer bear the heat and retreats into herself (*Met.* 2.301–3).

> dixerat haec Tellus (neque enim tolerare uaporem
> ulterius potuit nec dicere plura) suumque
> rettulit os in se propioraque manibus antra.
>
> Earth had spoken (for she could not tolerate the heat any longer, nor say anything more) and she withdrew her face into herself and into the caves that are nearer to the shades.

This withdrawal *in se* is deeply bizarre, both cinematically visual and ontologically disconcerting. It makes us reckon with a very bizarre form of bodiliness which undermines any sense of identification or empathy that we may have been lulled by the text into feeling we could experience. Earth, then, is no longer readily knowable, let alone expropriable. The shocking realisation that we cannot embody Earth's voice merely by speaking her words, our carnality being so different from hers, has a retrospectively deranging effect on the familiar, trope-filled rhetoric of her speech, which we now recognize as proceeding from an uncanny origin that gives it a different force from that which it would have without this framing. Our reading, in fact, is a form of distortion, because Earth understands through her senses, which we cannot share; therefore we cannot feel nor 'read' as she does.[101]

At this point, the poem brings us down to earth with a bump, and the rest is history. Jupiter realises the seriousness of the situation and the need for him to act, even though by the damage having reached this stage, the required action is itself devastating. Since there is now no moisture from

[100] I translate Chaos with Chasm here, as a nod towards Most's translation of Hesiod in the Loeb (revised edition, 2018, p. 13 and n. 7).

[101] I am especially grateful to Tom Phillips here, whose words to me in personal communication I shamelessly appropriate.

which he can summon up rain,[102] he fights fire with fire (2.313) and blasts Phaethon out of the chariot, the sky, and life (311).

7. Postscript? The Metamorphosis of the Heliades

The grieving sisters who turn into trees play a substantial role in non-Ovidian versions of the myth, standing for it, for example, in the mythic catalogue of Silenus in *Eclogue* 6, where the story is represented only through the metamorphosis and the unusual fratronymic *Phaethoniades*.[103] In *Met*. 2, by contrast, their metamorphosis feels like an afterthought.[104] Along with Cycnus, whose story doubles theirs, Phaethon's sisters represent the only straightforward, non-symbolic, metamorphosis in the extended episode, while their appearance at 2.340 is unprepared and unmotivated. Their metamorphosis, however, is a classic Ovidian woman-tree transformation (*Met*. 2.346–66).[105] The only unusual feature of the vignette is that there is no indication of an agent of change. While it is not the case that the agent of change is always made explicit in Ovidian metamorphoses, it is usually so, in keeping with the (ambiguous) programme of the proem (1.2). The 'straightforward' instances of transformation that have occurred so far in the poem have all been attributed to one or more of the gods,[106] as will the vast majority of those throughout the poem. In the case neither of the sisters nor of the

[102] Most versions of the Phaethon story involve water. In Hyginus' account (*Fab*. 152b), the Flood is a *consequence* of Phaethon's fire, which Jupiter uses as an excuse for the destruction of humankind, through rivers being raised in order to put out the fire.

[103] Verg. *Ecl*. 6.2–3. On the Heliades in *Ecl.* 6, see Geue (2021). The appearance of Phaethon's transformed sisters in *Ecl*. 6 as well as in Apollonius is a sign of their centrality in most versions, extant and otherwise, including Aeschylus' *Heliades*.

[104] For a clear example of this reading, see Galinsky (1975) 49.

[105] As Barchiesi (2005) 263 notes also.

[106] Lycaon is metamorphosed into a wolf by Jupiter (1.232–43: although Jupiter's account glosses over agency, in keeping with his rhetorical aim of presenting the punishment as natural and inevitable: note also 1.209, where the god opens his narrative with a version of 'justice has been done'); Deucalion and Pyrrha are instructed by Themis to cast stones which turn into people after the flood (1.375–415); Daphne is transformed by her father, the river god Peneus (1.546–52); Io is turned into a cow by Jupiter (1.611); Syrinx is transformed into reeds by her sister-nymphs (1.704); Argos' eyes are transformed by Juno into the decorations of the peacock's tail (1.722–3); Io again is back into humanoid form and minor divinity by Jupiter (1.735–46).

friend of Phaethon, however, is there any indication of who causes them to transform.

I propose the unspoken agent of change as Tellus herself. Just as the singular *arbor* (2.212) and the global *siluae* (2.216) have been burnt, now nature is restored with new trees. Just as the famous river birds of the Caystrus had succumbed to the heat (2.252–3),[107] now the avian world is restored, with a swan that remains distrustful of both fire and Jupiter (*Met*. 2.377–80). Cycnus seems to replace the missing river birds fairly comfortably. The Heliades, by contrast, and also their mother, suffer greatly in the process of reforestation. As they are undergoing the transformation, Clymene tries to 'free' them from the encroaching bark but only succeeds in tearing their own flesh (*nostrum laceratur in arbore corpus*, 'our body is being torn in the tree', 2.362), from which ooze bloody drops *tamquam de uulnere* ('as if from a wound', 2.360) — a simile with almost no space between tenor and vehicle. This is Earth's revenge for the suffering inflicted on her and all her children by Phaethon.

Earth had already once restored the world, after the flood. Deucalion realises that the 'bones of your mother' that he and Pyrrha are meant to throw over their shoulders are stones, because *magna parens terra est* ('Earth is our great parent', 1.392) and the 'wit of man' works out that therefore the bones of the mother are stones.[108] Indeed, we could say that Tellus has already (re)populated the world with humans twice, because in addition to working with Deucalion and Pyrrha, she appears previously to have been the originator of modern humanity, after the battle between the gods and the Giants. *Met*. 1.156–60 refers to a story (*ferunt*) that after the destruction of the Giants, Terra, wet with the blood of the children, animated that blood and turned it into the face of humans. Moreover, after the quasi-magical and anthropogenic recreation of humanity through Deucalion and Pyrrha's stones, the rest of nature is repopulated by the direct, natural, work of *tellus* (this time not capitalised by Tarrant) acting *sponte sua* (1.416–17). Now Tellus recreates again, but this time in the natural way of reforestation after fire. Such reforestation might be a positive for Gaia in totality, that is, for all the living beings and natural forces that surround the planet's core, but the

[107] Barchiesi (2005) 256–7 draws out the metapoetics of the swans and their Homeric roots (*Il.* 2.459–61).

[108] See Feldherr (2020), in particular for the gendered implications of Deucalion and Pyrrha's interaction with language and metamorphosis.

process is painful, not only for the guilty party (Phaethon), but also for the innocent (his sisters).

There are parallels with our current situation, when the 'innocent' (those who are responsible for the lowest carbon output) suffer the worst effects of climate change. To take the parallel further, I note the title of Lovelock (2007), *The Revenge of Gaia*. At this point, however, the connection starts to break down. Tellus' revenge takes the form of a return to the status quo ante of flourishing trees and river birds, whereas the threats described by Lovelock are vastly more serious and exist over a wildly different timescale. There is, furthermore, a brief coda to this story of battle between humanity and the earth. From the transformed Heliades comes a precious liquid which, when hardened to amber, humanity re-appropriates for aesthetic and commercial purposes (2.364–6).[109] In Ovid's world, human domination and appropriation can remain unquestioned.

The work of the (female) Tellus is sidelined, when the men take over in the form of Jupiter (*pater omnipotens*, 2.401) putting the world back to rights, restoring rivers and renewing vegetation (*Met*. 2.407–8).

> flumina restituit, dat terrae gramina, frondes
> arboribus, laesasque iubet reuirescere siluas.
>
> He restores the rivers, gives grass to the earth, leaves to the trees, and orders the wounded woods to grow green again.

The Earth is thus deprived of her agency along with her capitalisation. I do not disagree with Tarrant's choice to print *terrae* here, rather than Terrae, as the lowercase *terra* represents what the text is doing in this passage. Jupiter displays the typical human arrogance of belief in the capacity of powerful males to control any situation, an attitude which over the last 200 years has been a major factor in bringing the world to its current precarious state.[110] In this ending to the episode, we see a fundamental difference between Ovid's story and the climate crisis. That illusion of control is, or should be, now exposed as fantasy, but within the *Metamorphoses* it is just business as usual. On one reading, Jupiter's reassertion of his power and of normative patterns is a reimposition of anthropocentric, or rather androcentric, force-

[109] The elder Pliny's long catalogue of different kinds of trees throughout the world is almost wholly driven by their commercial value. The commercial value of trees has, of course, always been a major element in their history.

[110] See especially Malm (2016).

based hierarchies, which provides a reassuring comfort and sense of stability in a world that had briefly looked chaotic. Such reassurance is all-too-great a part of contemporary anti-environmental rhetoric, and all-too-common a response in many contemporary societies. As a result, it could be difficult to see the episode's view of power as anything other than wish-fulfilment, the telos of which is the perpetuation of anthropic violence. Latinists, especially Ovidians, are, however, well used to 'reading more'.[111] Such displays of violent male power are always already self-ironising.

Furthermore, it is precisely in the process of this restoration that Jupiter sees his next victim, Callisto, and the metaphorical force of fire returns (*Met*. 2.409–10).

> dum redit itque frequens, in uirgine Nonacrina
> haesit et accepti caluere sub ossibus ignes.
>
> As he frequently comes and goes, he got stuck on an Arcadian maiden and the fires he received grew hot beneath his bones.

This return of the fiery repressed offers the opportunity for the suspicious Ovidian reader, if she so chooses, to undermine the work of Jupiter in 'taking back control'. (The reference here, for non-UK readers, is to one of the slogans of Brexit.) It can remind us that the belief in a technological solution, that will allow business as usual for the privileged, is misguided.[112]

Alison Sharrock, *University of Manchester*

alison.sharrock@manchester.ac.uk

[111] Casali (1997). The debate between surface and deep reading (the latter being where typically Ovidian suspicion is at work) is active in ecocritical circles. The case for ecocritical deep reading is made for example by Huggan (2021).

[112] I am particularly grateful to Tom Phillips for many invaluable conversations on this paper and on ecocriticism. Thanks also to Julene Abad Del Vecchio, John Taylor, and other Manchester colleagues and students for their comments and probing questions. Anonymous readers have provided outstanding critical service, while I am indebted to the Editors for their support, judgement, and flexibility. Finally, I am very grateful for the support of The Leverhulme Trust, whose award of a Major Research Fellowship enabled this research.

Bibliography

Barchiesi, A. (2005) *Ovidio, Metamorfosi. Volume I: Libri I–II*, Fondazione Valla, Milan.
— (2009) 'Phaethon and the monsters', in P.R. Hardie (ed.), *Paradox and the Marvellous in Augustan Literature and Culture*, Oxford: 163–88.
Bate, J. (2000) *The Song of the Earth*, London.
Berners-Lee, M. (2019) *There Is No Planet B: A Handbook for the Make-or-Break Years*, Cambridge.
Biggs, T., and Blum. J. (2020) 'Sea-storms in ancient epic', in C. Reiz and S. Finkmann (eds), *Structures of Epic Poetry Vol. I: Foundations. Vol. II.1/II.2: Configuration. Vol. III: Continuity*, Berlin: 125–68.
Bömer, F. (1969) *P. Ovidius Naso, Metamorphosen Buch I–III*, Heidelberg.
Brutsaert, W. (2005) *Hydrology: An Introduction*, Cambridge.
Buell, L. (1996) *The Environmental Imagination: Thoreau, Nature Writing, and the Formation of American Culture*, Cambridge MA.
Bury, R.G. (1929) *Plato: Timaeus, Critias, Cleitophon, Menexenus, Epistles*, Loeb Classical Library 234, Harvard.
Casali, S. (1997) '*Quaerenti plura legendum*: the necessity of "reading more" in Ovid's exile poetry', *Ramus* 26: 80–112.
Clark, T. (2015) *Ecocriticism on the Edge: The Anthropocene as a Threshold Concept*, London.
— (2019) *The Value of Ecocriticism*, Cambridge.
Closs, V.M. (2020) *While Rome Burned: Fire, Leadership, and Urban Disaster in the Roman Cultural Imagination*, Ann Arbor.
Cole, T. (2008) *Ovidius Mythistoricus: Legendary Time in the Metamorphoses*, *Studien zur klassischen Philologie* 160, Berlin.
Courtney, E. (1993) *The Fragmentary Latin Poets*, Oxford.
Diggle, J. (1970) *Euripides Phaethon: Edited with Prolegomena and Commentary*, Cambridge.
Duret, L. (1988) 'Néron-Phaéthon ou la témérité sublime', *Revue des Études Latines* 66: 139–55.
Farrell, J. (2020) 'Ovidian synchronisms', *The Classical Journal* 115: 324–38.
Feldherr, A. (2010) *Playing Gods: Ovid's Metamorphoses and the Politics of Fiction*, Princeton.
— (2016) 'Nothing like the sun: repetition and representation in Ovid's Phaethon narrative', in L. Fulkerson and T. Stover (eds), *Repeat Performances: Ovidian Repetition and Metamorphoses*, Ann Arbor: 26–46.
— (2020) 'Between a rock and a hard race: gender and text in Ovid's Deucalion and Pyrrha episode (*Met*. 1.313–415)', in Sharrock, Möller, and Malm (eds): 54–83.
Formisano, M. (2023) 'Ovid's Gaia: Medea, the middle and the muddle in the *Metamorphoses*', in Sissa and Martelli (eds): 55–72.
Freitag, K. (2016) 'Zur Bedeutung von Waldbränden in der Antike', in Y. Hazirlayanlar, B. Takmer, E.N. Akdogu Arca, and N. Gökalp Özdil (eds), *Vir Doctus Anatolicus*: *Studies in Memory of Sencer Sahin*, Istanbul/Vienna: 356–63.
Galinsky, G.K. (1975) *Ovid's Metamorphoses: An Introduction to the Basic Aspects*, Oxford.

Garani, M. (2022) 'Keep up the good work: (don't) do it like Ovid (*Sen. QNat*. 3.27–30)', in Williams and Volk (eds): 145–63.
Garrard, G. (2023) *Ecocriticism* (3rd ed.), Abingdon.
Gärtner, U. and Blaschka, K. (2020) 'Similes and comparisons in the Epic tradition', in C. Reiz and S. Finkmann (eds), *Structures of Epic Poetry Vol. I: Foundations. Vol. II.1/II.2: Configuration. Vol. III: Continuity*, Berlin: 727–72.
Geue, T. (2021) 'Power of deduction, labour of reproduction: Virgil's sixth *Eclogue* and the exploitation of women', *Vergilius* 67: 25–46.
Ghosh, A. (2016) *The Great Derangement: Climate Change and the Unthinkable*, Chicago.
Gould, G.P. (1977) *Manilius: Astronomica*, Loeb Classical Library 469, Harvard.
Hardie, P.R. (1986) *Virgil's Aeneid: Cosmos and Imperium*, Oxford.
— (2002) *Ovid's Poetics of Illusion*, Cambridge.
Heise, U. (2008) *Sense of Place and Sense of Planet: The Environmental Imagination of the Global*, Oxford.
Hinds, S.E. (1987) 'Generalising about Ovid', *Ramus* 16: 4–31.
Horsfall, N. (2013) *Virgil, Aeneid 6: A Commentary*, Berlin.
Holzberg, N. (1998) '*Ter quinque volumina* as *carmen perpetuum*: the division into books in Ovid's *Metamorphoses*', *Materiali e Discussioni per l'Analisi dei Testi Classici* 40: 77–98.
Huggan, G. (2021) 'Going underground: in defence of deep reading', in H. Feder (ed.), *Close Reading the Anthropocene*, Abingdon: 131–43.
Kirby, J.T. (1989) 'Humor and the unity of Ovid's *Metamorphoses*: a narratological assessment', *Studies and Latin Literature and Roman History* 5: 233–51.
Knox B.M.W. (1950) 'The Serpent and the Flame: the images of the second book of the *Aeneid*', *American Journal of Philology* 71: 379–400.
Krasne, D.A. (2022) 'Some say the world will end in fire: philosophizing the Memnonides in Ovid's *Metamorphoses*', in Williams and Volk (eds): 226–47.
Kyriakidis, S. (2007) *Catalogue of Proper Names and Latin Poetry: Lucretius — Virgil — Ovid*, Newcastle.
Lovelock, J. (2007) *The Revenge of Gaia: Why the Earth is Fighting Back and How We Can Still Save Humanity*, London.
Lowe, D.M. (2008) 'Personification allegory in the *Aeneid* and Ovid's *Metamorphoses*', *Mnemosyne* 61: 414–35.
Malm, A. (2016) *Fossil Capital: The Rise of Steam Power and the Roots of Global Warming*, Brooklyn.
Martelli, F. (2020) *Ovid*, Leiden.
McPhee, B. (2019) '(*adhuc*) *uirgineusque Helicon*: a subtextual rape in Ovid's catalogue of mountains (*Met*. 2.219)', *Classical Quarterly* 69: 769–75.
Moore, B.L. (2008) *Ecology and Literature: Ecocentric Personification from Antiquity to the 21st Century*, New York.
— (2017) *Ecological Literature and the Critique of Anthropocentrism*, London.
Morton, T. (2013) *Hyperobjects: Philosophy and Ecology after the End of the World*, Princeton.
Most, G.W. (2018) *Hesiod: Theogony, Works and Days, Testimonia*, Loeb Classical Library 57, Harvard (revised edition).

Natoli, B. (2017) *Silenced Voices: the Poetics of Speech in Ovid*, Madison.
O'Hara, J.J. (1996) *True Names: Vergil and the Alexandrian Tradition of Etymological Wordplay*, Ann Arbor.
Peek, P. (2001) 'Black humour in Ovid's *Metamorphoses*', *Ramus* 30: 128–51.
Race, W.H. (2008) *Apollonius Rhodius: Argonautica*, Loeb Classical Library 1, Harvard.
Rebenich, S. (2012) '*medio tutissimus ibis*: Mythos und Politik im frühen Prinzipat', in K.-J. Hölkeskamp and S. Rebenich (eds), *Phaethon: Ein Mythos in Antike und Moderne*, Stuttgart: 33–43.
Ritchie, H. (2024) *Not the End of the World: How We Can Be the First Generation to Build a Sustainable Planet*, London.
Schiesaro, A. (2014) '*Materiam superabat opus*: Lucretius Metamorphosed', *Journal of Roman Studies* 104: 73–104.
Sharrock, A.R. (1996) 'Representing metamorphosis', in J. Elsner (ed.), *Art and Text in Roman Culture*, Cambridge: 103–30.
— (2023) '*Ambobus pellite regnis*: between life and death in Ovid's *Metamorphoses*', in J. Farrell, J. Miller, D.P. Nelis and A. Schiesaro (eds), *Ovid, Death, and Transfiguration*, Leiden: 231–50.
—, Malm, M., and Möller, D. (eds) (2020) *Metamorphic Readings: Transformation, Language, and Gender in the Interpretation of Ovid's Metamorphoses*, Oxford.
Silk, M.S. (1996) 'Tragic language: the Greek tragedians and Shakespeare', in M.S. Silk (ed.), *Tragedy and the Tragic: Greek Theatre and Beyond*, Oxford: 458–96.
Sissa, G. and Martelli, F. (eds) (2023) *Ovid's Metamorphoses and the Environmental Imagination*, London.
Tarrant, R.J. (2004) *P. Ouidi Nasonis Metamorphoses*, Oxford.
Tissol, G. (1997) *The Face of Nature: Wit, Narrative, and Cosmic Origins in Ovid's Metamorphoses*, Princeton.
Volk, K. (2009) *Manilius and his Intellectual Background*, Oxford.
von Glinski, M.L. (2012) *Simile and Identity in Ovid's Metamorphoses*, Cambridge.
Webster, T.B.L. (1954) 'Personification as a mode of Greek thought', *Journal of the Warburg and Courtauld Institutes* 17: 10–21.
Weik von Mossner, A. (2017) *Affective Ecologies: Empathy, Emotion, and Environmental Narrative*, Columbus, Ohio.
Wheeler, S.M. (1999) *A Discourse of Wonders: Audience and Performance in Ovid's Metamorphoses*, Philadelphia.
Williams, G.D. (2012) *The Cosmic Viewpoint: A Study of Seneca's Natural Questions*, Oxford.
— and Volk, K. (eds) (2022) *Philosophy in Ovid, Ovid as Philosopher,* Oxford.
Woods, D. (2022) 'Scales: climate versus embodiment', in A. Johns-Putra and K. Sultzbach (eds), *The Cambridge Companion to Literature and Climate*, Cambridge: 71–86.
Zissos, A. and Gildenhard, I. (1999) 'Problems of time in *Metamorphoses* 2', in P.R. Hardie, A. Barchiesi, and S.E. Hinds (eds), *Ovidian Transformations: Essays on Ovid's Metamorphoses and Its Reception*, Cambridge: 31–47.