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CHAPTER 3

THE 'AUTHORITY OF THE ANCIENTS'? SEVENTEENTH-CENTURY NATURAL PHILOSOPHY AND AESTHETIC RESPONSES TO MOUNTAINS¹

Dawn Hollis

'Tis true, the Poets who were the most ancient Writers amongst the Greeks, and serv'd them both for Historians, Divines, and Philosophers, have deliver'd some things concerning the first Ages of the World, that have a fair resemblance of truth . . . but . . . we will never depend wholly upon their credit, nor assert any thing upon the authority of the Ancients which is not first prov'd by natural Reason, or warranted by Scripture.²

Thomas Burnet, *The Theory of the Earth* (1684)

In 1684 the natural philosopher Thomas Burnet threw an intellectual grenade with his *Sacred Theory of the Earth*, a translation and expansion of his 1681 *Telluris Theoria Sacra*. Burnet sought to provide a mechanical explanation for key moments of Scriptural history and eschatology – the Creation, the Flood and the Apocalypse – and in so doing to produce a rational explanation for the current form of the Earth. Burnet posited that the Earth had originally formed out of the 'Chaos' into a paradisiacal 'Mundane Egg', with a smooth surface uninterrupted by mountains or seas.³ Over time, the rays of the sun heated the waters upon which the surface of the Earth rested and, at 'the appointed time . . . that All-wise Providence had design'd for the punishment of a sinful World', caused the waters to burst open the shell of the egg.⁴ This cataclysm was none other than the universal flood, or 'Deluge', and as the waters receded they revealed 'the true aspect of a world lying in its own rubbish': continents separated by seas and bisected by mountain ranges.⁵ Ultimately, this broken form would meet its end at the Conflagration, which would begin with the eruption of 'the *Burning Mountains* or Volcano's of the Earth', and which would set light to the storehouses of coal and other fuels secreted in the bowels of the Earth.⁶ At the last, 'every mountain and hill' would be brought low, a 'huge mass of Stone . . . soften'd and dissolv'd'.⁷ Out of the roiling matter of the previous Earth – a second Chaos, so to speak – would form the New Earth: paradise, without oceans or hills.

Burnet's *Theory* rippled through the intellectual world of late seventeenth-century Britain and Europe and, ultimately, through the modern historiography of mountain experience and landscape aesthetics. In his own time, Burnet inspired a horde of critics. The *Theory*, however, could not be silenced, seeing six further editions between 1697 and 1759. Authors now credited with articulating early eighteenth-century definitions of

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natural sublimity went to the mountains with Burnet in mind; Joseph Addison even wrote a Latin ode to the *Theory*.⁸ This chapter will focus on the *Theory* and the flurry of responses produced in its aftermath from 1685 to 1700, with a focus on two key issues: the aesthetic reception of mountains, and the ongoing influence of classical ideas and writings on the natural philosophic thought of the late seventeenth century.

In his treatment of mountains, Burnet presents a contradiction: he wrote that his desire to investigate their origins had been prompted by his awed impression of them as objects with ‘the shadow and appearance of [the] INFINITE’; but his *Theory* ultimately posited that they were nothing but the shattered ruins of God’s original Creation, visible monuments of humankind’s sinfulness. In modern scholarship, Burnet’s positive response to mountains has been interpreted as him giving *new* voice to a hitherto-unknown appreciation for them. Meanwhile, his more negative depictions of mountains as disordered ruins have been seen to represent long-standing early modern attitudes of distaste towards them.⁹ This chapter will reorient this assessment, by emphasizing the extent to which Burnet’s respondents challenged his denigration of mountains with reference to a wide variety of positive arguments for them as original creations of God. Contrary to previous assessments, I argue that Burnet was representative of early modern attitudes not in his dismissal of mountains, but in his approval of them, and that it was in his attempt to remove mountains from the narrative of creation that he was heterodox.

In terms of the influence of classical ideas, the Burnet debate occurred during the midst of the ‘Quarrel of the Ancients and Moderns’, in which writers and thinkers wrangled over the value which should be placed on ancient texts.¹⁰ Simultaneously, a crux of the debate itself was the level of dependence that should be placed upon different sources of natural knowledge: Scriptural, empirical and, indeed, classical. Burnet was criticized for over-dependence on ancient insights by respondents who would themselves, in the next textual breath, quote passages out of Ovid. This chapter will explore the instances in which discussions specifically regarding mountains either drew upon or rejected classical knowledge. These were concerned with the origin (or not) of mountains out of the original chaos, and their aesthetic identity as objects worthy of paradise. As such, the defence of the value of mountains launched in response to Burnet’s *Theory* both relied upon ancient knowledge and evoked a sense of the antiquity of the human enjoyment of mountains.

The Burnet debate, mountains, and the ‘ancients’ and the ‘moderns’

Before considering the moments of intersection between mountains and classical knowledge in the Burnet debate it is necessary to trace the broad contours of the controversy and the general attitudes which its participants expressed regarding the use and value of ‘ancient’ insights. The debate spanned more than a dozen volumes, published over the course of almost twenty years. Clergymen and mathematicians alike wrote long treatises and parodic dialogues in response to Burnet, and almost every aspect of his original work and thinking was considered and critiqued.

It is important to emphasize that the debate was not strictly *about* mountains. They were certainly a chief feature, and I would argue that the passions of Burnet's respondents were particularly excited by his suggestion that mountains, far from being the admirable creation of God, were ruinous remnants of God's punishment of sinful mankind. However, there were yet more crucial matters at stake. Burnet's *Theory* marked an attempt to provide a rational explanation for events recorded in Scripture, which sometimes required him (at least according to his accusatory respondents) to place his own intelligence above the evidence of the Bible. The *Theory* was written during a period in which, as Paolo Rossi has put it, seventeenth-century natural philosophers were beginning to stare into 'the dark abyss' of deep time¹¹ – and to wrestle with the corresponding idea that the Earth might be far older than Scriptural evidence allowed.¹²

The problem of deep time was accompanied by similarly huge questions: how had the Earth come into being, mechanically speaking, and how had it changed since creation? These questions could be answered with reference to the 'Book of Nature' – the physical Earth, perceived to be a second form of divine revelation – but what to do when human interpretations differed from God's literal revelation as found in the Bible? This is why Burnet's theory provoked so much vociferous reaction: because his answers had the potential to 'strike at . . . the very *Foundation*' of religion itself.¹³

Rather ironically, given the response he received, Burnet's professed intention in his work was to 'silence the Cavils of Atheists'.¹⁴ He was a Cartesian, meaning he held to a mechanistic view of the Universe: one which God could create and then set on autopilot. Above all he resisted theories which relied on regular miraculous intervention, or which expected God to 'do and undo' as He went along.¹⁵ A truly divine Creation, in Burnet's view, was one which was so well-designed that it required no subsequent intervention. This view made both the Scriptural account of the Flood, and extant explanations of it, difficult for Burnet to stomach.¹⁶ A point which made Burnet particularly anxious was the account in Genesis of the Earth being 'covered' by the waters of the Deluge (Genesis 7.20). However, there was clearly not enough water in the Earth to achieve this: if one took it out of the sea, the laws of hydrodynamics (which Burnet understood even if he would not have used the term) meant it would slip right back in again.

However, it was not just the volume of water which concerned Burnet: he was also deeply troubled by the mountains themselves. In the panegyric praise of mountains for which he would later become most famous, Burnet wrote that

The greatest objects of Nature are, methinks, the most pleasing to behold . . . there is nothing that I look upon with more pleasure than the wide Sea and the Mountains of the Earth. There is something august and stately in the Air of these things that inspires the mind with great thoughts and passions. We do naturally upon such occasions think of God and his greatness.¹⁷

However, Burnet quickly suggested that this divine sense of appreciation was mistaken; 'these Mountains we are speaking of, to confess the truth, are nothing but great ruines', admirable only insofar as the 'old Temples and broken Amphitheatres of the *Romans*' are

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worthy of attention as memorials of ‘the greatness of that people’. Burnet presents his sense of wonder at mountains – which in his use of the plural pronoun he acknowledges is a common response – as a mirage which most people do not move beyond: ‘the generality of people have not sense and curiosity enough to raise a question concerning these things.’¹⁸ Of course, Burnet himself is different: it was his first impression of the Alps and Apennines as ‘wild, vast, and indigested heaps of Stones and Earth’ which drove him to seek ‘some tolerable account how that confusion came in[to] Nature.’¹⁹ If people would only look and think, as he did, they would realize ‘what a rude Lump our World is which we are so apt to dote upon.’²⁰

Burnet’s *Theory* thus killed two birds with one stone, for it suggested that the mountains, far from being *covered* by the waters of the Deluge, were the result of it. As such, it solved the problems posed by a Flood which would otherwise require God to miraculously make and unmake a sufficient volume of water to drown the mountains, and which ran contrary to the Cartesian view of a God great enough to design a world in which He did not need to intervene. It also satisfied Burnet’s sense that God was too good to have included such disordered objects as mountains in His original act of creation.

Burnet’s earliest and most vociferous respondents were Herbert Croft, the eighty-five year-old Bishop of Hereford, and Erasmus Warren, a rector in his mid-thirties serving a parish in Suffolk. Croft deemed Burnet’s *Theory* to be the expression of ‘a grave and sober madness’, and feared that it made Scripture ‘a Nose of Wax, to be shaped and fitted . . . to this Mans ridiculous inventions.’²¹ Croft saw Burnet’s theory of the Deluge as nothing but a ‘*Prælude* to usher in his rare Conceit of a new World’ – or, rather, an old world, Burnet’s vision of a paradisiacal flatland. Croft’s response to the topography of this imagined world was scathing and sarcastic: as he noted, ‘It wants onely one thing; There is a not a Mountain in all his World . . . from whence you might have a large prospect of this delicious Land.’²² He also grasped at the inherent contradiction in Burnet’s simultaneous denigration and praise of mountains, quoting the passage given above before elaborating that

surely all men who behold these things have the same delightful contemplation, as he acknowledges to have felt, when he beheld them; and yet we never looked upon them as broken ruined fractions of a former Structure, which we poor Souls never dream’d of, till his Theory gave us notice of them.²³

Warren highlighted the same inconsistency in Burnet’s judgement of mountains, and came to the same conclusion – that it was in his approval of mountains that he expressed received opinion, and in his denigration of them that he diverged from it.²⁴ Warren was the only critic to whom Burnet would publicly respond: over the course of the two years following Warren’s *Geologia* (1690), Burnet would publish two replies and Warren a further two counter-responses.²⁵ Warren defended mountains as both beautiful and useful objects clearly designed by God. Not only were they the ‘Tornings, and Carvings, and ornamental Sculptures’ of nature, which represented ‘the marvellous and adoreable

Skill of her *Maker*, but they were also immensely valuable to humankind, ‘in Bounding Nations; in Dividing Kingdoms; in Deriving Rivers; in Yielding Minerals; and in breeding and harbouring innumerable wild Creatures.’²⁶

Some dozen authors – too many to treat individually here – responded to Burnet over the course of the final decade of the seventeenth century, and Warren’s dual recognition of the beauty *and* use of mountains figured prominently for many of them. The philologist Richard Bentley insisted that the ‘irregularities’ of mountains were vital for ‘all the conveniences and comforts of life’, in part due to their role in storing metals; without which, he argued, humankind would be ‘bereave[d] . . . of all arts and sciences, of history and letters’ and even of religion itself.²⁷ This mountainous utility was not secondary to their beauty but inherent to them, for, according to Bentley, ‘all bodies are truly and physically beautiful . . . that are good in their kind, that are fit for their proper uses and ends of their nature.’²⁸ John Beaumont, a medical practitioner who became fascinated with the internal workings of the earth after befriending miners in the Mendip Hills, expressed a similar impression in a more allusive way:

We find the Ancients call’d the Earth $\delta\eta\mu\acute{\eta}\tau\eta\rho$ our Mother Earth; for as *Plato* says, the Earth does not imitate a Woman, but a Woman the Earth: and they compar’d the Mountains on the Earth, to the breasts of a Woman: and indeed . . . we shall find that the Mountains are no less ornamental, and of necessary use to the Earth for affording continual streams of fresh Waters to suckle all her Productions; than the protuberant Breasts of a Woman are, both for beautifying her Person, and yielding sweet streams of Milk for the nourishment of her Children.²⁹

This same sense was expressed consistently throughout the debate: Burnet’s awestruck experience of mountains was perfectly common, because mountains – in their beautiful usefulness – were quite clearly designed and created by God, and thus worthy objects of awe.

As Beaumont’s reference to ‘the Ancients’ would suggest, classical knowledge or ideas figured frequently over the course of the Burnet debate. Indeed, the appropriate application of classical knowledge formed a particular point of contention, secondary only to fervent opinions held and expressed regarding the appropriate interpretation of Scriptural evidence. As shown in the quote opening this chapter, Burnet outlined three resources to which a natural philosopher could turn in constructing their theories: Scripture, reason and classical knowledge. For Burnet, these sources of knowledge and insight existed in a clear hierarchy: ‘Reason is to be our first Guide’, supported by ‘further light and confirmation from the Sacred writings’. He justified giving primacy to reason by virtue of the fact that it, like Scripture, had been gifted to humankind as a form of revelation – although many of his respondents would deem this to be virtually atheistical arrogance. The ‘Testimonies of the Ancients’, on the other hand, were a clear last: Burnet suggested that what ‘truths’ ancient culture did have access to were merely received from even earlier antiquity, and that the ‘grounds and reasons of them’ were not understood by those who recorded them. As such, Burnet promised his reader that he would ‘only make

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general reflections upon' classical sources, 'for illustration rather than proof of what we propose; not thinking it proper for an English Treatise to multiply citations out of Greek or Latin Authors.'³⁰

Just as Burnet's critics identified the inconsistency in his responses to mountains, so too did they highlight that he failed to practise what he preached in his use of ancient sources. Herbert Croft commented that 'Sometimes he favours much of the Heathen Humour', whilst Erasmus Warren mused that it would have better had Burnet 'kept to his word' regarding his lack of reliance on the 'authority of the Ancients', rather than diverting from 'sober truth' and pursuing 'superstitious knowledge' and the 'Dreams' of 'Poets.'³¹ One respondent, Samuel Parker, alluded to Burnet's reliance on ancient texts in a quip steeped in irony. His 1700 essay regarding the *Theory* took the form of a dialogue between one 'Philalethes' (lover of truth) and 'Burnetianus' (a 'Burnet fan'). The latter asks 'What becomes then of the Authority of the Ancients?', followed by the ironic aside 'not to cite'em particularly'; Parker's point being that Burnet cited them to excess.³²

Some authors critiqued not only Burnet's use of the Ancients but the writings of the Ancients themselves. John Keill, a mathematician, was scornful of philosophers both ancient and modern who 'have maintained opinions more absurd than can be found in any of the most Fabulous Poets, or Romantick Writers'. Keill took particular pot-shots at Anaxagoras, Heraclitus, Xenophanes and Epicurus as representatives of 'the Ancients', and reserved particularly fierce criticism for Descartes as the leader of 'the Moderns.'³³ A year later, Keill would criticize natural philosophers who relied on ancient writers simply because they lived closer in time to the Deluge, pointing out that for all this they still 'did not live within some thousands of Years of the time, when this change was suppos'd to be made'. More than that, these same authors 'have said a thousand other things, that neither the *Theorist* nor any body else can believe.'³⁴ Ironically, Burnet also made his own critique of ancient philosophy, dedicating some time to dismantling the Aristotelian concept of the eternity of the Earth. One of his arguments against this idea was that had the Earth existed from eternity, it was impossible that the ancients should have been 'so ignorant', having had endless generations to develop their understanding: 'How imperfect', Burnet asked, 'was the Geography of the Ancients . . . their knowledge of the Earth . . . their navigation?'³⁵ Both Burnet and many of his respondents, therefore, articulated perceptions of ancient knowledge as, at best, secondary to the more reliable resources of reason and Scripture, and at worst as superstitious, flawed or even ridiculous.

These articulations, however, did not tell the whole story. Some participants in the debate had only positive things to say about classical knowledge. Beaumont, in keeping with his easy reference to 'the Ancients', given above, offered a general defence of pre-Scriptural natural knowledge. He termed ancient philosophers 'Men of Sense', who possessed 'an enquiring and restless Genius'. He even argued that, since *Moses* (supposed to have authored *Genesis*) 'had his learning from the *Egyptians*', one 'cannot think the Antients so ignorant in that kind, as some may otherwise imagin them to have been.'³⁶ The parson-naturalist dedicated an entire chapter of his *Miscellaneous Discourses* (1692) to 'The Opinions of the Ancient Heathen Philosophers, and other Writers concerning the Dissolution.'³⁷ Moreover, even the most staunch critics of Burnet's use of classical

knowledge could not help but refer to it themselves. As will be seen in the remainder of this chapter, Croft, Warren and Keill all drew upon ‘the authority of the Ancients’ in seeking to construct their arguments against Burnet. With regard to mountains, ancient knowledge proved particularly pertinent in discussions of their origination out of a Chaos, and their aesthetic value as objects worthy (or not, as Burnet claimed) of a place in paradise.

The formulation of the Chaos

The key to Burnet’s thesis that the antediluvian Earth was formed without mountains was his understanding of the Chaos. The concept of the Chaos (χάος) was central to ancient Greek cosmogony. Burnet’s essential argument was that the Chaos separated matter according to its density, which then formed into the Earth according to the principles of gravity, with the heaviest matter at the core and lighter matter, such as water, forming an outer layer.³⁸ This water was then covered by small earthy particles so light that they had been thrown up by the motion of the Chaos, and which ultimately formed the thin shell of what Burnet termed the ‘Mundane Egg’, another concept with deep classical antecedents.

Burnet was more than conscious of the fact that he was drawing on classical tradition in his construction of the Chaos: indeed, he turned to classical mythology to justify his vision of a peculiarly ordered ‘chaos’. He noted that

the Ancients in treating of the Chaos, and in raising the World out of it, rang’d it into several Regions or Masses, as we have done; and in that order successively, rising from one another . . . and therefore they call it the Genealogy of the Gods.³⁹

Burnet went on to comment that ‘those parts and Regions of Nature, into which the Chaos was by degrees divided, they signifi’d . . . by dark and obscure names, as the *Night*, *Tartarus*, *Oceanus*, and such like’, and that the ‘Ancients . . . made *Contention* the principle that reign’d in the Chaos at first, and then *Love*’, representing the same division of elements, followed by union, as presented in his *Theory*. Here, Burnet echoes both the writings of Aristophanes (*Birds* 693-9), and the *Theogony* of Hesiod (115-125), both of which depict the mythological figure of Chaos as the first of the primigenial gods to appear, with Eros following and, in the case of Aristophanes, mating with Chaos to produce humanity. Burnet was careful to emphasize that these ideas supported his own argument, not because they offered reliable natural-philosophical evidence in and of themselves, but rather because his theories explained ‘notions which we find in the writings of the Ancients figuratively and darkly deliver’d.’⁴⁰ Just as his work set out to offer a rational interpretation of Scripture, so too – he claimed – did his explication of the Chaos enlighten some of the stranger passages of classical literature.

The concept of the Mundane Egg receives similar treatment:

this notion of the *Mundane Egg*, or that the World was *Oviform*, hath been the sence and Language of all Antiquity, Latins, Greeks, Persians, Egyptians, and others . . . I

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thought it worthy our notice . . . seeing it receives such a clear and easie explication from that Origin and Fabrick we have given to the first Earth, and also reflects light upon the Theory it self, and confirms it to be no fiction.⁴¹

Here, ancient knowledge – though ‘explicated’ by Burnet’s *Theory* – is also given credit for confirming his own arguments. In his conclusion regarding the form of the antediluvian Earth, Burnet reiterates his triumvirate of sources of knowledge, and their appropriate application, commenting that, as it is ‘proved by Reason, the laws of Nature, and the motions of the Chaos; then attested by Antiquity . . . and confirmed by Sacred Writers,’ he and his readers can comfortably ‘proceed upon this supposition, *That the Ante-diluvian Earth was smooth and uniform, without Mountains or Sea*.’⁴² What is particularly intriguing about this passage – alongside the fact that it reiterates the connection between the form of the Chaos and the mountain-less Earth – is that here, Burnet places Scripture in the role of confirming that which was attested by antiquity: a far cry from his initial promise to utilize ‘the authority of the Ancients’ for mere illustratory and confirmatory purposes.

Burnet’s critics rightly identified his theory of the Chaos as a crux in his argument for the form of the antediluvian Earth, and unsurprisingly disagreed with his vision of its formulation. Herbert Croft, despite referring in derisory fashion to Burnet’s interest in ‘the several vain opinions of Heathen Poets or Philosophers’ (which he characterizes as ‘*Ignes fatui*’, a will-o’-the-wisp), roots part of his criticism in what he sees as Burnet’s generalization of ancient opinion. ‘I desire him to tell us,’ the elderly bishop stated, ‘whether all the ancient Heathens were of this opinion,’ concluding that they in fact offered multiple models not just for the Chaos but for the general mechanics by which the world originated. Croft’s rare reliance on ancient ideas is followed by a sting in the tale: ‘this Chaos,’ he concludes, is clearly ‘an Idea framed out of his [Burnet’s] own brain,’ and therefore worthy of being rejected ‘as we do *Epicurus*’s Atoms.’⁴³ This passage sees the ancient and the contemporary reflecting poorly on one another: ancient knowledge is akin to invention, but Burnet is also implicitly equated with an ancient philosopher who in the seventeenth century was frequently associated with atheism and immorality.⁴⁴ For Croft, Burnet’s *Theory* is nothing more than a conjured will-o’-the-wisp, made all the more suspect by his reliance on ancient writings.

Other critics, in contrast, drew directly on ancient literature to contradict Burnet’s interpretation of the Chaos. Erasmus Warren argued that Burnet’s idea of the orderly accretion of the Chaos could not have occurred because it would have taken far too long; longer, certainly, than the ‘Divine Account’ of the seven days and nights of Creation.⁴⁵ The fine particles which made up the crust of the Earth would also have had to accrete to an incredible thickness, formed by ‘inconceivable Quantities of little Particles’ to create a crust that would one day form ‘the highest Mountains’ of the Earth. More than this, the crust would have had to have been ‘*somewhat bigger*’ than indicated by the current height of mountains, for ‘the Mountains are now worn . . . *lower* than they were,’ an idea which Warren states as fact, with reference to Aelian’s *Varia Historia* (8.11).⁴⁶

Later respondents to Burnet would turn to an author more in the modern mainstream of classical literature. John Beaumont argued that Burnet’s concept of the Chaos was far

too orderly, and gave no credit to the contrary, fermenting nature of the substance ‘as all Antiquity has represented it’. For evidence of this, one need ‘go no further than *Ovid*, who has represented the Nature of a *Chaos*, as well as any of the Antients’:

---*Congestáque eodem*
Non bene junctarum Discordia semina rerum.
 --- And mingled there
 The jarring Seeds of ill-joynd beings were . . .

---*quia corpore in uno*
Frigida pugnabant caldis, humentia siccis
Mollia cum duris, sine pondere habentia pondus.
 --- ‘cause in one Masse
 The cold things fought with hot, the moist with dry,
 The soft with hard, the light with contrary.⁴⁷

Of all Burnet’s critics, Beaumont quoted the *Metamorphoses* at greatest length, but several others alluded to the text as well. Archibald Lovell mused that Burnet had failed to represent ‘a True and Original *Chaos*, which was no more but what the Poet says, *rudis indigestaq; [sic] moles*, bare and indigested matter, void of all Form, but susceptible of any that it should please an Almighty Creator to stamp upon it.’⁴⁸ Samuel Parker, his tongue firmly in cheek but clearly alluding to the same passage out of Ovid, characterized the ancient vision of the *Chaos* as ‘a mere Hotch-potch of matter, a rude, undigested Mixture . . .’⁴⁹ Even John Keill, despite his declared distaste for classical sources, wrote as follows: ‘certain it is that in such a great heap of matter, and so different mixtures of all sorts, *Mollia cum duris, sine pondere habentia pondus.* . .’ (*Metamorphoses*, 1.20: ‘The Soft and Hard, the Heavy and the Light’).⁵⁰ Drawing on this description, Keill suggested it was far more likely that the *Chaos* was a liquid full of solid lumps which, following the principles of Archimedes, would float like icebergs – forming mountains present from the very beginning of the world.⁵¹

Crucial to Burnet’s argument for a mountain-less antediluvian Earth was a *Chaos* which divided matter by mass, and allowed the construction of his smooth, uniform ‘Mundane Egg’. He leaned heavily on the declared authority of the ancients in doing so, but his critics did not have to look far when deconstructing his arguments to find classical antecedents to support a *Chaos* far more suited to the original formation of mountains.

Paradise and the ancient aesthetics of mountains

In the sixth book of the *Aeneid*, Aeneas travels to the Elysian Fields to speak to his father, Anchises. He is guided by the Cumaean Sibyl, who inquires of a group of souls – headed by Musaeus of Athens – where they might find the father of the Trojan hero. Musaeus responds in a passage rich with landscape description:

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In no fix'd place the happy souls reside.
In groves we live, and lie on mossy beds,
By crystal streams, that murmur thro' the meads:
But pass yon' easy hill, and thence descend;
The path conducts you to your journey's end.
This said, he led them up the mountain's brow,
And shews them all the shining fields below;
They wind the Hill, and thro' the blissful Meadows go.⁵²

The topography of paradise formed one of the cruxes of Burnet's argument. In both Burnet's *Theory*, and the responses to it, ancient conceptions of precisely what paradise looked like provided important supporting evidence.

Burnet's case was that there was nowhere in the current form of the Earth that satisfied the definition of paradise and thus, by extension, the Earth must have changed drastically since Creation. Burnet located paradise in the smooth, flat, antediluvian Earth which rose out of the Chaos as he had interpreted it. He turned to both biblical and classical sources to elaborate upon the supposed characteristics of paradise – all of which, he argued, were far more likely to occur with the notable absence of mountains. Burnet identified corollaries to the Christian paradise in a variety of classical topoi; the Golden Age, which he deemed to be 'contemporary with our *Paradise*', but also specific locations such as the Elysian Fields, the Fortunate Isles, the Gardens of the Hesperides and Alcinous, Ogygia (the home of the goddess Calypso), and Taprobana (a real place, modern-day Sri Lanka).⁵³

Through these, Burnet highlighted characteristics which classical authors ascribed to paradise and which, he argued, would also have been extant on the surface of his sea-less, peak-less 'Mundane Egg'. The first of these characteristics, present in accounts of the classical Golden Age, was 'a perpetual Spring, and constant serenity of the Air'.⁵⁴ This was a feature also of Burnet's theorized original, or 'Primigenial' Earth, thanks in part to its upright axis (Burnet suggested that the disruption of the Deluge had caused the present-day tilt), but also because winds 'could not be either impetuous or irregular in that Earth; seeing there were neither Mountains nor any other inequalities . . . to stop them or compress them'.⁵⁵ Supporting evidence for this could be found in both Virgil and Ovid:

Such days the new-born Earth enjoy'd of old,
And the calm Heavens in this same tenour rowl'd:
All the great World had then one constant Spring,
No cold East-winds, such as our Winters bring.

Virgil, *Georgics* 2.336-9⁵⁶

The Spring was constant, and soft Winds that blew
Rais'd, without Seed, Flow'rs always sweet and new.

Ovid, *Metamorphoses* 2.107-8⁵⁷

Ovid also gave the account, which Burnet pointed to, of Saturn, ‘an Ante-diluvian God, as I may so call him’, being ousted by Jupiter, who introduced the four seasons.⁵⁸ Burnet goes no further along this particular line, although the implication is clear; the disruption of the Deluge which he recounts in his *Theory* is clearly hinted at in the changing of the guard from Saturn to Jove recounted in the *Metamorphoses*. Burnet also emphasized that ‘they’ – i.e. the Ancients – also ‘supposed this perpetual Spring . . . in their particular *Elysiums*’, a thing he could easily demonstrate ‘from their Authors’ if it were not for the fact that it would ‘multiply Citations too much in this place.’⁵⁹

The second common feature of both the ancient Golden Age and the antediluvian Earth was that of human longevity. This feature, ‘however strange soever, is well attested, and beyond all exception, having the joynt consent of Sacred and Profane History.’⁶⁰ Burnet likewise avoided choosing to ‘multiply Citations’ here, merely insisting in broad-brush terms that

all Antiquity gives the same account of those first Ages of the World, and of the first men, that they were extreamly long-liv’d. We meet with it generally in the description of the Golden Age; and not only so, but in their Topical *Paradises* also they always suppos’d a great vivacity or longævity in those that enjoy’d them.⁶¹

Such an opinion, Burnet noted, was not merely his own impression: ‘*Josephus* speaking upon this subject, *saieth* the Authors of all the learned Nations, *Greeks* or *Barbarians*, bear witness to *Moses’s* doctrine in this particular.’⁶² In this case, Burnet drew upon ancient writings to intervene in a debate surrounding Scripture. Turning to classical accounts of Paradise offered confirmation that longevity truly was a feature of the antediluvian Earth.

The third characteristic was the fertility of the soil and production of animals from said soil: ‘All Antiquity speaks of the plenty of the Golden Age, and of their *Paradise*, whether Christian or Heathen.’⁶³ Once again, Burnet gestured towards ancient perceptions in general but avoided highlighting specific texts, noting that

The Ancient Poets have often pleas’d themselves in making descriptions of this happy state, and in admiring the riches and liberality of Nature at that time, but we need not transcribe their Poetry here, seeing this point is not, I think, contested.⁶⁴

Just as grapes and honey flowed more freely in the antediluvian Earth, but now ‘must be squeezed out, and are more bitter’, so too was the world as a whole more productive, even to the point of spontaneously generating animals – another claim made by Burnet to support a mechanistic understanding of Creation. He suggested that this was evidenced in Scripture, arguing that Moses ‘seems to suppose that the Earth brought . . . [animals] forth as it did Herbs and Plants’, but went into far greater depth in arraying relevant ancient sources.⁶⁵ Asserting that there was really no difference between the ‘Seeds out of which Plants rise, and the Eggs out of which all Animals rise’, he suggested that ‘the warmth and influence . . . imputed by the Ancients to the *Æther* was surely sufficient to

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bring such earth-born eggs into fruition.⁶⁶ He acknowledged that ‘this opinion of the spontaneous Origin of the Animals . . . hath lain under some *Odium*, because it was commonly reckon’d to be *Epicurus’s* opinion particularly’ – Epicurus an ancient, as noted above, who was viewed with ambivalence – but insisted that the concept ‘was not at all peculiar to *Epicurus*’, and could be found in the writings of the Pythagoreans and the Egyptians too.⁶⁷

Burnet concluded that the ‘three general Characters’ of his theorized antediluvian Earth could also be identified as ‘the chief ingredients of the Golden Age, so much celebrated by the Ancients.’⁶⁸ He deployed both specific ancient material and general assertions of the opinions of ‘the ancients’ in support of his model of an antediluvian Earth, with the first characteristic – that of a serene atmosphere – in particular linked to the absence of mountains. His use of classical material here focused on the environmental realities of his proposed antediluvian world.

Burnet’s interlocutors also drew upon ancient discussions of paradise, although they did not focus, as he did, upon the physical or meteorological details provided by these accounts. Rather, they emphasized the frequent inclusion of mountains within ancient depictions of paradise, in order to demonstrate that the appreciation of mountains as having aesthetic value was not just their own ‘modern’ opinion, but the indubitable taste of ‘the ancients’ as well.

Erasmus Warren, for example, attacked Burnet’s use of ancient material in his discussion of paradise, witheringly observing that ‘poets . . . are by no means to be regarded in this matter. They are Men of wit and licentious fiction . . .’, and questioning whether ancient recollections of a ‘Golden Age’ might in fact refer to the era immediately following, rather than preceding, the Deluge.⁶⁹ Nevertheless, Warren was not above asserting, in his general defence of mountains as the original creation of God, that ‘It is well known also, that many of the Learned Ancients have taught, that Paradise was situate upon high Mountains.’⁷⁰ John Beaumont offered a similarly unreferenced and generic pair of assertions regarding both sea and mountains. Of the sea, which he treated first, he observed that ‘we find the Ancients so fond of a Sea, that scarce any of them describe a terrestrial Paradise, but mention a Sea with it’. Moving later to the question of mountains, he elaborated that ‘indeed as the Ancients (according to what I have intimated before) scarce ever describ’d a Paradise without mentioning a Sea, so they seldom did it without naming Mountains.’⁷¹ In each of these examples, ‘the Ancients’ are treated in general terms.

It was not until the intervention of Richard Bentley that a respondent to Burnet cited specific ancient sources in order to support the argument that mountains had a place in paradise and were thus aesthetically valuable. Among Bentley’s plentiful criticisms of Burnet was the case, extensively made, that a mountainous Earth was superior to a mountain-less one:

Are there then such ravishing Charms in a dull unvaried Flat, to make a sufficient compensation for the chief things of the ancient Mountains, and for the precious things of the lasting Hills?

Deuteronomy 33.15⁷²

In support of this, Bentley swiftly moved from biblical citation to a discussion of ancient responses. Citing Aelian's *Varia Historia* 3.1, he asked the reader to consider 'What were the *Tempe* of *Thessaly*, so celebrated in ancient story for their unparalleled pleasantness, but a Vale divided with a River & terminated with Hills?' He turned next to 'all the descriptions of Poets . . . when they would represent any places of superlative delight', emphasizing first that 'They will never admit that a wide *Flat* can be pleasant, no not in the very *Elysian Fields*; but those too must be diversified with depressed Valleys and swelling Ascents'. This comment is paired with a series of marginal quotations from Virgil's *Aeneid*, including phrases alluding specifically to the passage given at the opening of this section. Bentley places a modern poet alongside this ancient one, commenting that 'They [poets] cannot imagin even Paradise to be a place of Pleasure nor heaven it self to be Heaven without them [mountains]', with marginal notes gesturing towards John Milton's 1667 *Paradise Lost*.⁷³ As poets, Milton, Virgil, and other ancient writers represent a jury delivering 'the sentence of Mankind' regarding the beauty, value and long existence of mountains.

This aesthetic point is also a religious one, or, as Bentley puts it, 'another Argument of the Divine Wisdom & Goodness'. It is a sign of the goodness of God that the world should be 'distinguished with Mountains and Valleys, . . . and that because of the τὸ βέλτιον, it is better that it should be so'.⁷⁴ Far from supporting Burnet's argument for a flat antediluvian Earth, the consensus of his respondents – vague though many of their allusions may have been – was that 'the authority of the Ancients' supported the idea of mountains as being beautiful, and thus worthy elements of God's original creation.

Conclusion

This chapter has demonstrated two key points. First, that the overwhelming consensus of the Burnet debate, despite the opinions of Burnet himself, was that mountains were objects of value which had clearly been designed by a beneficent God for the benefit of mankind; and second, that despite a surface-level rhetoric throughout the debate which largely denigrated classical knowledge, the 'authority of the ancients' in fact loomed large as multiple authors sought to understand the origin and nature of the natural world with reference to past ideas. Of course, none of this is to say that ancient knowledge or ideas went uncontested, but it is evident that foundational ideas regarding the formation of the Earth (and thus its geology) were widely accepted, with little more required for supporting reference than a brief tag out of Ovid. Even more compellingly, 'the Ancients' were drawn upon as arbiters of natural aesthetics: if *they* could not imagine paradise without mountains, how could Burnet be right in saying that they were the unsightly ruins of the Flood?

One potential critique of the material explored in this chapter is that the 'classical reception' evident in the Burnet debate was not always particularly good Classics; both Burnet and his respondents frequently referred with frustrating vagary to 'the Ancients' as a whole, and where specific texts were invoked the corpus which they apparently drew

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upon, once reconstructed, looks notably small (Ovid and Virgil seem to have formed a good majority of it). However, I would argue that in some respects that is precisely the point. Previous works attempting to reconstruct the ‘literary heritage’ of early modern discussions of mountains have carried out their own surveys of the classical (and biblical) material relating to mountains.⁷⁵ Such surveys may be valuable as points of comparison, but they are problematic in two ways. Firstly, they risk being selective in a fashion which reproduces the modern presumption that positive responses to mountains belong largely to the postclassical, post-Romantic era. Secondly, in terms of unpicking the classically-influenced mountain ideas of the late seventeenth-century it does not particularly matter what citations a modern survey of ancient literature can find if they were not the citations which were prominent in the minds of the authors of the time: the ‘literary heritage’ thus traced ignores the more important contours of what was actually *inherited* from the classical corpus. It also does not particularly matter whether Burnet’s critics were correct in attesting that ‘the Ancients . . . scarce ever describ’d a Paradise . . . without naming Mountains’. What matters is that his critics believed that to be the case.

Burnet’s *Theory* – and the furore surrounding it – represents the wider late-seventeenth-century natural-philosophical project of seeking to understand the origins of the world, in the midst of a moment of strife in the intellectual history of early modern Europe. New ideas of deep time and geological change were challenging what had hitherto been theological certainties regarding the age and creation of the world, and confidence in the authority of ancient sources of knowledge were on the wane, alongside a growing sense that, perhaps, the ‘moderns’ might rightfully step out of the shadows of their classical forbears. At the same time, this period by no means saw the outright rejection of Scriptural knowledge, and, to a lesser extent, the ‘authority of the ancients’ continued to hold some sway. In the Burnet debate, mountains stood at the nexus of new, ancient and biblical ideas about the world. The traditional narrative of ‘mountain gloom and glory’ sees mountains as subject to the same flux, with old, negative ideas giving way to new, positive attitudes. The above reading of the Burnet debate would suggest the contrary; that, with the exception of Burnet, natural philosophers of the late seventeenth century could trace deep antecedents for the aesthetic appreciation of mountains.

Notes

1. The initial research underpinning this chapter was undertaken for my MPhil thesis, and I am grateful both to the AHRC for supporting that research and to Alexandra Walsham for her expert and generous supervision of it. More recent thanks are due to Jason König for his ever-insightful comments.
2. Burnet 1684–91: I, 4.
3. *Ibid.* I, 52–65.
4. *Ibid.* I, 72.
5. *Ibid.* I, 110.
6. *Ibid.* II, 55.

7. Ibid. II, 111, with reference to Isaiah 40.4.
8. Addison 1699.
9. Burnet 1684–91: I, 139–40. The most enduring interpretation of Burnet as the vocalizer of a new attitude towards nature can be found in Nicolson's seminal *Mountain Gloom and Mountain Glory* (1959), and is reiterated in Macfarlane 2003; see also Wragge-Morley 2009.
10. See Levine 1999.
11. On deep time, see also Duffy in this volume, 43–5.
12. Rossi 1984: ix. As Rossi emphasizes, the idea of the relatively recent origin of the Earth (c. 4000 BCE) was also challenged in the same period by attempts to synchronize different cultural chronologies (for example ancient Egyptian and Chinese) with biblical chronology.
13. Warren 1690: sig. A3v.
14. Burnet 1684–91: I, 17.
15. Ibid. I, 20.
16. The *Theory* was also not wholly about the Deluge. However, Burnet's explanation of it underpins all of his subsequent discussions regarding Paradise, the original Earth, the Conflagration and the Earth still to come.
17. Burnet 1684–91: I, 140.
18. Ibid.
19. Ibid. This passage is potentially an allusion (conscious or not) to Ovid's *rudis indigestaque moles* – see below for more explicit references to the same.
20. Burnet 1684–91: I, 151.
21. Croft 1685: sig. A6r and br. Croft associates the expression 'grave and sober madness' with Seneca, giving the Latin as '*Sobrie insanire, & per gravitatem furere*'.
22. Ibid. 136.
23. Ibid. 142.
24. Warren 1690: 146.
25. See Warren 1690; Burnet 1690; Warren 1691; Burnet 1691; Warren 1692.
26. Warren 1690: 147.
27. Bentley 1693: 38.
28. Ibid. 37.
29. Beaumont 1693: 56.
30. Burnet 1684–91: I, 3–4 and 6.
31. Croft 1685: a5r–a5v; Warren 1692: 264–5.
32. Parker 1700: 5.
33. Keill 1698: 2–5 and 11–12.
34. Keill 1699: 41–2.
35. Burnet 1684–91: I, 34 and 39–40.
36. Beaumont 1693: 10. In making this argument he was articulating a wider early modern belief: see Assmann 1998.
37. Ray 1692: 28–38.
38. Burnet 1684–91: I, 51–60.

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39. Ibid. I, 63.
40. Ibid. I, 64.
41. Ibid. I, 65. The oviform shape allowed, Burnet argued, for the motion of rivers around an otherwise smooth globe: I, 227–8.
42. Ibid. I, 65.
43. Croft 1685: 144–5. Despite Croft's general scorn for 'the ancients', he does – without any sense of irony – draw on them for the occasional witty tag, for example commenting (with an obvious stab at Burnet, sig. A7r) 'the more we study, the more we come to know our own ignorance, as that Wise man said, *Hoc unum scio, me nihil scire*' (a phrase widely attributed to Socrates).
44. For the ambivalent early modern reception of Epicurus, see Wilson 2009: 267.
45. Warren 1690: 48.
46. Ibid. 49. An entirely separate chapter could be written on the connection between early modern ideas regarding the heights of mountains and classical knowledge and methods for measuring altitude; for a dated but valuable introduction to this area, see Cajori 1929.
47. Beaumont 1693: 26–7. The lines quoted are from Ovid, *Metamorphoses*, 1.8-9 and 1.18-20.
48. Lovell 1696: 14, quoting Ovid, *Met*, 1.7.
49. Parker 1700: 5.
50. Keill 1698: 50. Translation (not in Keill) given from George Sandys' 1632 Ovid.
51. Ibid. 50–1.
52. Dryden 1697: 389, 6.914–21 (6.673–8 in the Loeb Latin text). Dryden's *Virgil*, composed between 1694 and 1697, marks a translation more or less contemporaneous with the Burnet debate, and also one which has gone on to become an – or even the – iconic early modern English translation of a classical text.
53. Burnet 1684–91: I, 176–7 and 252–3.
54. Ibid. I, 177.
55. Ibid. I, 196 and 224–5.
56. Ibid. I, 177. The translation is as given in Burnet (who also included the Latin).
57. Ibid.
58. Ibid. I, 177–8.
59. Ibid. I, 178.
60. Ibid. I, 180.
61. Ibid. I, 181.
62. Ibid., referring to Josephus' *Jewish Antiquities*, 1.4.105-8. Burnet's use of Josephus here and elsewhere suggests that he viewed him, a Jewish if not a Christian author, as distinct from (and more reliable than) his 'pagan' forbears.
63. Ibid. I, 181.
64. Ibid. I, 182.
65. Ibid. Burnet cites Genesis 1 verses 11 and 24 – the first dealing with herbs and grass, the second with animals, but both featuring the phrase 'Let the earth bring forth' (King James Version).
66. Ibid. Burnet again quoted Virgil's *Georgics* (2.325-6), suggesting an analogy between the effect of the aether on the Earth and the 'irradiation of the Male' upon the female: 'In fruitful show'rs of Æther *Jove* did glide / Into the bosom of his joyful Bride.'

67. Ibid. I, 182–3; cf. 62, above on the rejection of Epicurus' theory of atomism.
68. Ibid. I, 183–4.
69. Warren 1690: 263.
70. Ibid. 208.
71. Beaumont 1693: 55–6.
72. Bentley 1693: 39–40.
73. Ibid. 40.
74. Ibid. 40–41.
75. Nicolson 1959 dedicates her first chapter to 'The Literary Heritage' of seventeenth-century English attitudes to mountains, suggesting that 'the early Greeks had shown some of the awe and aversion of many primitive peoples in the face of a Nature they did not understand, whilst 'the Latin attitude towards mountains . . . remained almost consistently adverse' (38–9); see the introduction, above for further discussion, and for recent critiques of Nicolson, esp. Koelb 2009. More recently, Barton 2017: 15–58, offers an overview of Latin and biblical responses to mountains, concluding that 'the lack of aesthetic judgements of the mountain or mountain environments in the biblical tradition – just as in the Classical – is clear' (58).

