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‘That roaming meteor world’: James Hogg in Time and Space

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For an author who called himself ‘The Ettrick Shepherd’, James Hogg was reluctant to confine himself to the Ettrick Valley or any other locality. His stories take us all over Scotland, to Russia (‘The Adventures of Captain John Lochy’), to Southern Africa (‘The Pongos’), to America (‘The Renowned Adventures of Basil Lee’) and to the North Pole (‘The Surpassing Adventures of Allan Gordon’). Alongside these geographic locations lie metaphysical spaces, (the ‘land o’ thocht’ in ‘Kilmeny’) and supernatural ones such as that occupied by Jane Ogilvy (‘The Mysterious Bride’), who manages to be in both Scotland and Ireland at the same time. Each one of these locations is richly suggestive. But here I want to take a more abstract approach to Hogg’s play with different spatialities, and to set him in a context in which space itself was under scrutiny in terms of its relation to time. New inventions and discoveries in the science of temporality and new experiments in the mensuration of time and space circle Hogg’s writing, touching it at different points that allow him to make literalising jokes, or to dissolve the scientific signs of space and time altogether and replace them with literary rhetoric. So in what follows I will discuss the way in which time and space are calibrated during Hogg’s writing career, and what that has to say about empirical geographies, literary temporalities and the relations between them.

Let me start with a dramatic event. In 1834, just a year before Hogg died, the Houses of Parliament in London went up in smoke on October 16 (famously witnessed in Turner’s *The Burning of the Houses of Parliament*). Among the many things that were lost in the fire was a new yardstick, which had recently replaced a much older template, for standardising

imperial measures across the United Kingdom. The new official yardstick, based on calculations by Henry Kater, was much more precise than the older model introduced in 1743, and it set the standard for the regulation of imperial measurement.[1] There seems to be something sublimely Hoggian in this moment: the great conflagration of power and the loss of an object that has the effect of literalising and humanising the abstractions of mathematics. And although Hogg doesn't comment on it, I think he would have enjoyed the tropic potential of the loss of a yardstick to show how we rely both on the literal and the metaphoric for our sense of space. He regretted the alteration of the name of the constellation the 'King's Ellwand [yardstick]' to the 'Belt of Orion.'[2] And in the bizarrely wonderful story of polar exploration, 'The Surpassing Adventures of Allan Gordon', our hero is shipwrecked at the North Pole, only to be surprised that the so-called 'pole' is not quite what he had been led to expect:

> He [the ship's captain] then told us we were at the pole and afterwards that we had sailed round it. He gave us a treat and plenty to drink on this joyful occasion but we only laughed in our sleeves at him for in fact there was no pole nor pillar of any kind to be seen; neither was there any axletree or groove which there behoved to have been had we been at the pole of the world.[3]

Hogg's joke is not at the expense of Allan's intellect. Rather, he draws attention to the way that, in our understanding of the mechanics of the world, we move seamlessly between the practical and the abstract, the material and the mathematical, the axletree on which the wheel turns and the hypothesised axis that demonstrates how it turns. The world is not given to us by mathematics, it is brought into being as we explore it and interact with it.

Hogg was writing during a period in which global abstractions and practical considerations were drawing increasing close to each other when it came to the relations of

place and time. I will go on to show how Hogg plays with these ideas, but first I want to take a brief detour to remind us of some beliefs about space and time that took shape during the course of Enlightenment natural philosophy and philosophic empiricism. These are well-known ideas, but they will help us to establish what Hogg has to play with. First, one of the most famous conceptualisations time and space from the scientific revolution of the seventeenth century—Newton's claim in the *Principia* for absolute time and space:

1. Absolute, true and mathematical time, in and of itself and of its own nature, without reference to anything external, flows uniformly and by another name is called duration. […]
2. Absolute space, of its own nature without reference to anything external, remains always homogeneous and immovable.[4]

For Newton time is 'true' because it is unimpeded by any spatial considerations—as observing subjects, we can measure time without having any effect on it. Space similarly exists 'of its own nature', and although bodies may pass through it, it remains independent of them. Our measurements and perceptions of time and space are subject to change, but they cannot have any influence on these absolute principles of space and time. Newton's view does not take into account the possibility that the movement of the viewer can have an affect on his or her observation of an event. Next, in this rough survey of Enlightenment space/time, we move on to David Hume for a second aspect of the absolute and inseparable nature of time. For Hume in 1738, time is indivisible because things self-evidently cannot take place at the same time:

> 'Tis [indivisibility] a property inseparable from time, and which in a manner constitutes its essence, that each of its parts succeeds another, and that none of them, however contiguous, can ever be co-existent. For the same reason, that the year 1737

> cannot concur with the present year 1738, every moment must be distinct from, and posterior or antecedent to another.[5]

Readers of Hogg will quickly conclude that he is not likely to put up with that kind of thing, and Hume's impossibility of co-existent times is most notably and strikingly challenged by Robert Wringhim's experiences in *Confessions of a Justified Sinner* when he find himself accused of crimes that he has no memory of committing. Robert's contention that such a state of affairs is 'unaccountable' because 'it is impossible that [he] can have been doing a thing, and not doing it at the same time'[6] is thrown into doubt by a novel in which it is impossible to testify to 'singular' events because everything is witnessed in different ways at the same time. *Confessions* is a novel that plays in narrative form with time and space. Its two narrators trace not the discovery of the past in the present, but also a past and a present that seem to intertwined in each other. But in this talk I'm interested not so much in the time of narrative, but in the narrative of time itself.

To pick up this story, we can return to the House of Commons fire of 1834 and the conflagration that burned the official yardstick made following the calculations of Henry Kater. A few years before the great fire, Kater's work had been widely discussed in the magazines as a matter of general science. Here is an example from *Blackwood's* that shows how the measurement of time and space was entering into popular scientific discourse. The article is a review of Kater's research into establishing a more accurate pendulum:

> It is scarcely necessary to inform our readers that the attraction of the earth, considered as at rest, or the force of gravity at any point of its surface, varies as the square of the distance of that point from the centre of gravity of the whole mass. If we could therefore measure with extreme accuracy the force of gravity at various points, we should immediately obtain the distance of these points from the centre; and

> consequently, the exact figure of the earth. The velocity of falling bodies, at various places, would afford a correct measure of the attractive force; but it is extremely difficult, if not impracticable, to measure these velocities with sufficient accuracy, and therefore philosophers have turned their attention entirely to the pendulum.[7]

The *Blackwood's* reviewer is confident that the magazine's readers will already have some familiarity in the field of gravitational theory and that it is 'scarcely necessary' to draw their attention to the variability of gravity across the surface of a body (like the earth) which is not a perfect sphere. These things were already part of a common discourse about how bodies exist in space. More specifically, the focus in the *Blackwood's* article is not on primary laws of nature, but on how they can be observed. Gravity is not represented here as an underlying force, but as a means for individual measurements. If you could construct an accurate pendulum, its swing through time could be used to measure space.

But there was a problem that inhered in the measuring devices available at the time. A pendulum is either 'real' or 'simple' (that is, theoretical). In a simple pendulum, gravity is proportional to the length of the cord. Real pendulums—those in practical usage—were inaccurate because they did not approximate closely enough to simple pendulums (the mass of a real pendulum is not a point mass and the cord is not massless). It was not possible accurately to find the centre of oscillation— the swing of a real pendulum will have a slight angular momentum and the cord will stretch and contract during each swing. Kater replaced the cord with a rigid bar with two pivot points. The advance of Kater's pendulum (illustrated was that it was no longer necessary to find the centre of oscillation, but only to measure the period of the pendulum, which could be done with significantly greater accuracy.

Newtonian physics had held that time and space were separate from each other. But as we see from the illustration of Kater's pendulum, by the early nineteenth century they have

become imbricated in each other. Not only is time being measured by space, but there is also a new implication that time is dependent on how you measure it, and where you measure it from. Kater's pendulum needs two clocks to measure space—the only way of establishing the accuracy of one is by reference to another, and of course those two clocks, however close to each other, cannot occupy the same space. There will be a difference (even if very slight) between the two and a consequent delay in transmission. Time is not independent of the space in which it is measured.

At the end of the nineteenth century, science would discover that space and time are a continuum and that the point of observation has a specific bearing on the nature of time. I don't want to suggest that a theory of relativity is magically predicted at our point in history. Rather the interest in Kater's pendulum introduces some ways of thinking around this period that emphasise time and space as well as and history and geography. As we saw in the case of Kater's pendulum, time and space were becoming ways of describing the same thing. But we also saw that this 'thing' was variable and depended on where one stood. The 'official' measurement for the yardstick, for example, had to be at sea level. Time and space were not separate as they were for Newton, but interconnected.

The focus of this interdependence of space and time was gravity, increasingly seen not so much as an immutable law, but as something local and variable. And the act of observing gravity was itself subject to local and temporal considerations. Hogg's lifetime witnesses a new interest in gravity not only as an invisible force that regulates a fixed universe, but also as an idea about the connectedness of things in time and space; something that was a question for science, but was also passing into poetry and philosophy as life, force, energy, and creation. Gravity becomes a way of understanding the structure of the universe as mobile forms of being and knowing as much as an *a priori* law.

I'm going to look at two examples of the way in which Hogg participates in this gravitational force with its new ontological and rhetorical forms. And I'm going to travel, perversely, from the ridiculous to the sublime. My first example is from *The Three Perils of Woman*, and describes (in some considerable detail) the Minister of Balmillo as he suffers a fall from his horse:

> But all at once he found himself flying in the air, and that with a velocity, that, if it had not been for the disingenuous attraction of gravity, might have impelled him a good way on the line he was pursuing, or on one diverging only a few degrees from it. I say disingenuous, because I conceive it to be rather an oblique and illiberal provision of nature this tendency towards the centre, exposing people to such unmerciful thumps; and therefore I wish it had never been, or, at all events, that it had never been discovered. If it had never been, what an advantage for slaters, masons, fox-hunters, and weathercock-makers! How delightful to have had the same chance of falling upward as downward; or, best of all, in a horizontal direction, and then, in a level country, one might have fallen across a whole plain! And, if this mighty phenomenon had never been discovered, people would not have been puzzled with its absolute and specific qualities, or in solving an hypothesis that has always, to me at least, proved as incomprehensible as the work of creation itself.[8]

This passage is clearly indebted to Sterne's *Tristram Shandy*, a novel that plays on Newtonian ideas about gravity as much Lockean associations. Meiko O'Halloran has very helpfully detailed Hogg's debt to Sterne in his interest in the typographical self-conscious novel that plays with its own material, half-formed status.[9] To this, we can add a fascination shared by both writers with the nature of physical forces and the way we experience and talk about them. Sterne isn't exactly writing about the scientific formulations of gravity as such, but rather exploiting the linguistic potential of the word. He misses no opportunity to make

jokes about the relation of the word 'gravity' as seriousness to its status as a mechanical principle. All human endeavours must, in both senses of the word, be brought down to earth. In some of the most well-known examples. Sterne combines literary bathos with the inevitable conclusions of falling inanimate bodies, as window sashes, bullets, hot chestnuts and other missiles perpetually threaten the vulnerable human bodies of the characters.[10]

We can see this at work in the *Three Perils of Woman* incident I quoted above. Like Sterne, Hogg puns on scientific vocabulary—here the language of geometry. The 'line' the minister of Balmillo was following, and the 'oblique' angle he describes to the ground are jokes about his unsuccessful amorous pursuit of Sally Niven. As in the case of *Tristram Shandy*, all falls are postlapsarian and falling bodies inevitably fall into sexual predicaments. Enjoying the physics/morality jokes, Hogg adds 'density' to the mix: 'Then, I say, when it so chanced that a man had got a hearty fall, such as this experienced by the minister of Balmillo, he would have attributed it merely to his own density, and, if able, risen and clawed the damaged parts, and, if unable to have done that, some might have done it for him'(p. 338).

We can compare this with a well-known scene from *Tristram Shandy* when Uncle Toby accidentally knocks a hot chestnut 'perpendicularly' into the lap of the pedantic Phutatorius:

> […] there was nothing of accident in the whole event—but that the chestnut's taking that particular course, and in a manner of its own accord—and then falling with all its heat directly into the that one particular place, and no other—was a real judgement upon *Phutatorius* […].
>
> It is not my business to dip my pen in this controversy—much undoubtedly may be wrote on both sides of the question—all that concerns me as an historian, is to represent the matter of fact, and render it credible to the reader, that the hiatus in

> *Phutatorius*'s breeches was sufficiently wide to receive the chestnut;—and that the chestnut, some how or other, did fall perpendicularly and piping hot into it, without *Phutatorius*'s perceiving it, or any one else at that time.[11]

There are a lot of jokes here about the ways in which gravity eventually leads any inquiry into accidental events to a mechanistic conclusion, as well as about gravity's operation on bodies, sentient or otherwise, even when we are not immediately aware of it. But this passage also introduces something new. Where Sterne's humorous melancholy is based on the inevitability of gravity, Hogg's jokes consider the possibility of moving beyond gravitational fields. He yearns for 'the same chance of falling upward as downward' and for a new form of creation in which gravity does not obtain in the same way as it does on earth. Although no one really challenges Newtonian gravity until later in the century, it has, in the early nineteenth century, ceased to be the omnipresent force that most people do not understand although it will eventually propel them back to earth—which was Sterne's idea of gravity. For Hogg, there is always the possibility that the mathematics of gravity can be transcended, or at least expressed as a transcendental force.

It seems a long leap from here to the heights of Romantic idealist philosophy, but these are leaps that Hogg encourages. The Romantic period is one in which gravity--almost paradoxically—becomes less earth-bound. Coleridge, under the influence of Friedrich Schelling, takes issue with Newton′s explanation of gravity and light. Newtonian physics explained the existence of both by the idea of 'aether', a material substance which allowed light to travel and bodies to attract. Coleridge, by contrast, replaces this mechanistic, unproductive model, with a cosmos instinct with energies that both draw towards a centre and radiate outwards. We may call these 'gravity' and 'light', but they are not identical with the phenomena we experience directly—rather they are the ideal powers of which light and

gravity are forms (what Coleridge calls 'exponents').[12] The universe is organised by these opposing powers that animate everything in it from the material world to consciousness. In the hands of Coleridge, Schelling and others, of gravity becomes a mode being that crosses the fields of physics, philosophy and poetry.

Hogg's contribution to this union of physics and mythopoeisis is the long poem of 1815, *The Pilgrims of the Sun*. *The Pilgrims of the Sun* is about a journey of two people through a Universe in which physical and spiritual forces seem to follow the same patterns. The poem moves between glimpses of and lessons about our own earth, and an expansive cosmos that is simultaneously rhetorically and scientifically present to the voyagers. The poem is always about the experience of its two protagonists, but makes a distinction between an ordinary experience in earthly society and its transcendental equivalent. In Hogg's poem, Mary Lee, a young woman from the Yarrow Valley, and her angelic visitor Cela take a journey through a poetic universe that redefines ideas about bodies and their gravitational force, and in which the physical and the metaphysical mirror and melt into each other. Before her celestial voyage, Mary pores over books but none of them can satisfy her or compete with her own urge to satisfy the 'mystic wildness' of her mind.[13] Books are no use here, because they aspire to be *about* a world in which we already find ourselves. For Mary, knowledge must be a process of being in the world rather than reading about it, and her understanding of that world can only come through interaction with it. Space and time in *Pilgrims of the Sun* are not the independent, invariable forms that they were for Newton, but functions of the universe as it is apprehended.

The poem traces an aspiration to forms of knowledge that exceed rational or given explanation, and to forms of understanding that imagine the world and the individual mind simultaneously. Our consciousness of the universe and the universe itself are part of the same whole in which science and poetry—expressed in their universal forms—are the same thing.

Mary and Cela go beyond the world as it can be known purely by mathematics, but what they see can be grasped by scientific of knowledge expressed as abstractions that apply to both the world of matter and the world of experience--light, gravity, influence, contraction, expansion and motion. Thus, their journey is through both the forms of nature as they are experienced on earth, and Nature as the state of being in general. The poem uses the terms of science to move towards a state of spirit (or 'soul' as the poem calls it) that goes beyond the ordinary uses of these terms.

Mary and Cela soon move beyond gravity as it is understood denotatively as they move beyond the earth's gravitational field into a space that is not limited by the directions ('up' and 'down') by which we make a local sense of gravity:

When past the firmament of air,
    Where no attractive influence came;
There was no up, there was no down,
    But all was space, and all the same. (p. 10)

As local gravity is left behind, Mary and Cela find themselves in an expansive university of worlds and voids. As with earthly gravity, these words are ordered according to laws of motion and attraction. But, at the same time, gravity describes a state that, while it follows these movements, is transcendental (the poem associates this force with the sun and God) and cannot be known through mechanical inquiry:

    There all the motions of the ambient spheres
Were well observed, explained, and understood.
All save the mould of that mysterious chain
Which bound them to the sun — that God himself,
And he alone, could comprehend or wield. (p. 22)

Cela and Mary are not merely observers of this universe, or, rather, through their observation of it they became part of a principle in which mind and nature converge. After many sights on their overwhelming journey, they need to rest:

> Yet, after such probation of approach,
> So exquisite the feelings of delight
> Those heavenly regions yielded 'twas beyond
> Their power of sufferance. — Overcome with bliss,
> They saw them wandering in amazement on,
> With eyes that took no image on their spheres,
> Misted in light and glory; or laid down,
> Stretched on the sward of heaven in ecstasy. (p. 17)

In this extract, Cela and Mary have become part of a dialectic universe in which subject and object continually change places as pronouns melt into each other. In the phrase 'they saw them wandering' it is not immediately apparent whether 'they' are Mary and Cela or the heavenly regions. And do the words 'eyes […] took no image on their spheres', mean that the heavenly bodies were not reflected in the eyes of the spectators, or that the planetary spheres did not reflect the observers' eyes? Spatiality no longer consists of separately rendered positions for subject and object but allows for the individual centre of self to maintain its own identity while still responding to the gravitational pull of spheres beyond itself.

Just as its poetic invocation of gravity moves away from Newtonian physics, so the poem's temporality is a challenge to Hume's sequential time on a cosmic scale—one that enables a primordial past and a cataclysmic future to fold in on each other. The poem imagines the earliest creation: 'the time / That God outspread the glowing fields of heaven' (p. 17) and the destruction of worlds. Mary sees a planet that seems to be neither part of the ordinary universe nor under the influence of the sun's divine gravitational force. She calls it a

‘roaming meteor world’(p. 22) and asks Cela about it. He tells her that it used to be a world like the earth, but it has come to the end of its life and no longer revolves round its axis:

Away into the sunless starless void
Rushed the abandoned world; and through its caves,
And rifted channels, airs of chaos sung.
[...]
— Still with stayless force,
For years and ages, down the wastes of night
Rolled the impetuous mass! — of all its seas
And superficies disencumbered,
It boomed along, till by the gathering speed,
Its furnaced mines and hills of walled sulphur
Were blown into a flame ─ When meteor-like,
Bursting away upon an arching track,
Wide as the universe, again it scaled
The dusky regions. (p. 23)

The Pilgrims of the Sun, published in 1815, is dedicated to Byron, and Hogg’s abandoned planet may may remind of some images from Byron’s poems written the following year. *Manfred* calls up ‘the burning wreck of a demolish’d world’, and ‘Darkness’, written in the ‘year without a summer’ of 1816, is an apocalyptic vision of the earth cut off from the solar system and without its own gravitational field:

The bright sun was extinguish'd, and the stars
Did wander darkling in the eternal space,
Rayless, and pathless, and the icy earth
Swung blind and blackening in the moonless air;

Morn came and went—and came, and brought no day,

[…]

The rivers, lakes and ocean all stood still,

And nothing stirr'd within their silent depths;

Ships sailorless lay rotting on the sea […].[14]

Both Byron and Hogg imagine the universe in huge time-scales that contemplate the destruction of worlds.[15] But we can understand Hogg's ruined world in different terms. His 'roaming meteor world' is a vision not of the inevitable eschatology of oblivion, but of a universe in which different gravitational fields give a glimpse into non-sequential phenomena. Time does not move from beginning to end; rather, different temporalities can emerge within each other. Hogg's 'roaming meteor world' is both a future vision of our own world and a visitation from an ancient past:

-- Long the heavenly hosts

Had deemed the globe extinct — nor thought of it,

Save as an instance of Almighty power:

Judge of their wonder and astonishment,

When far as heavenly eyes can see, they saw,

In yon blue void, that hideous world appear. (p. 23)

For Friedrich Schelling, comets (meteors and comets were in the same class of ungrounded celestial objects) were a way of thinking about time and space as principles that were not necessarily subject to a fixed order:

Comets are […] living witnesses of that primordial time, since nothing prevents the earlier time form migrating through later time via particular phenomena. Or,

> conversely, nothing prevents a later time from having emerged in some parts of the universe than others.[16]

Meteors and comets demonstrate the uneven development of the universe.[17] Time is not sequential and the ancient past can irrupt into the present. Ian Duncan has shown how this is a central movement in Hogg's fiction—the re-visitation of romance in the novel form as the 'resurrection of a buried and dismembered literary past'.[18] Here the return of the planet long-deemed dead serves a similar function but this time in relation not to history but to temporality on a grand scale. The dead planet bursts into the visible universe with a sublime force, shocking all those who witness it. But it also forces those witnesses, both human and angelic, to recognise it as part of the same universe as themselves and that its presence in that universe indicates not so much a violent disjunction from the past, as a temporality of correspondences and analogies (the dead planet is both an image of and a prognosis for our own world). Here again the poem moves between physical forces and the individual consciousness. Cela and Mary are themselves are described as 'meteors' travelling through space and time. When they return to this more familiar Newtonian gravity, the priests complain that 'by moon or stars, the earth or sea, / An up and down there needs must be'(p. 44). But the poem offers another vision of a gravity that doesn't take place *in* an abstracted empty time, but exists as it experienced by the moving bodies of the travellers.

My own temporal journey in this talk has ranged widely in a short space. We've seen how gravity becomes both a public and a philosophical discourse and how it moves from a Newtonian given world in which time and space are separate both from each other and from events that 'take place' in them, to the recognition that time and space may be dependent on each other and that they may change according to the position from which they are observed. And from this, gravity spreads out into a discourse not only of science but also of being—a way of viewing the interconnectedness of the Universe in terms of the non-mechanical

powers of creation, destruction, imagination and being. Time and space cannot be separated in Hogg's cosmology and a non-linear temporality traces the intersections of the present of human experience with pasts and futures of enormous scale. Once again, Hogg refuses categorization. He takes us, along with Cela and Mary Lee, on a voyage from the ballads of the Ettrick Valley to the furthest reaches of Romantic idealist philosophy. And, as it turns out, they are the same place.

I would like to thank Paul Fielding for his help with the science for this paper.

Notes

[1] For Kater, and a detailed discussion on national and international standards of measurement, see Charles W. J. Withers, *Zero Degrees: Geographies of the Prime Meridian* (Cambridge, Mass,: Harvard University Press, 2017), pp. 117-19.

[2] *The Shepherd's Calendar*, ed. by Douglas S Mack (Edinburgh: Edinburgh University Press, 1995), p. 201.

[3] 'The Surpassing Adventures of Allan Gordon', ed. by Gillian Hughes, *Altrive Chapbooks*, 2 no.1 (1987), p. 3.

[4] Isaac Newton, *The 'Principia': Mathematica Principles of Natural Philosophy*, trans. Bernard Cohen and Anne Whitman (Oakland: University of California Press, 1999), 408.

[5] David Hume, *A Treatise of Human Nature* ed. by David Fate Norton and Mary J. Norton, vol. 1 (Oxford: Clarendon Press, 2007), p. 26.

[6] James Hogg, *The Private Memoirs and Confessions of a Justified Sinner*, ed. by Peter Garside (Edinburgh: Edinburgh University Press, 2001), p. 122. The phrase 'at the same time' occurs 23 times in *Confessions,* most of them with this sense of unaccountability.

[7] 'Captain Kater's Method of Measuring the Pendulum', *Blackwoods Edinburgh Magazine*, 4 (1819), p. 182.

[8] James Hogg, *The Three Perils of Woman; or, Love, Leasing, and Jealousy, a series of Domestic Scottish Tales,* ed. by Antony Hasler and Douglas S. Mack (Edinburgh: Edinburgh University Press, 2002), p. 338.

[9] Meiko O'Halloran, *James Hogg and British Romanticism: A Kaleidoscopic Art* (Basingstoke: Palgrave Macmillan, 2016), pp. 180-87.

[10] See Sigurd Burckhardt, 'Tristram Shandy's Law of Gravity', *English Literary History* 28 (1961), pp. 70-88, and Erwin Woll, 'Falling and the Fall in Sterne's *Tristram Shandy*', in Elmar Lehmann and Bernd Lenz (eds), *Telling Stories: Studies in Honour of Ulrich Broich* (Amsterdam: B. R. Grüner, 1992), pp. 97-108.

[11] Lawrence Sterne, *The Life and Opinions of Tristram Shandy, Gentleman*, ed. by Ian Ross (Oxford: Oxford University Press, 1983), pp. 256-57.

[12] 'Under Gravity we place Attraction and Repulsion: and under Light the Powers of Contraction and Dilation.' S. T, Coleridge, *Shorter Works and Fragments*, ed. by H. J. Jackson and J. R. de J. Jackson (Princeton: Princeton University Press, 1995), p. 850.

[13] *The Pilgrims of the Sun* in *Midsummer Night Dreams and Related Poems*, ed. by Jill Rubenstein, Gillian Hughes, and Meiko O'Halloran (Edinburgh: Edinburgh University Press, 2008), p.4. Further references are to page numbers in this edition.

[14] *Lord Byron: Selected Poems*, ed. by Peter Manning and Susan Wolfson (London: Penguin, 2005), pp. 465 and 412-14.

[15] For 'Darkness' and its relation to deep time, see David Higgins, *British Romanticism, Climate Change, and the Anthropocene: Writing Tambora* (London: Palgrave, 2017). David Groves notes Hogg's closeness to Byron and Shelley in *Pilgrims of the Sun* and points out

that this was recognized in reviews. *James Hogg: The Growth of a Writer* (Edinburgh: Scottish Academic Press, 1988), p. 61.

[16] Friedrich Wilhelm Joseph Schelling, *The Ages of the World* , trans. Jason M Wirth (Albany: State University of New York Press, 2000) p. 96.

[17] For Hogg's interest in comets and an important reading of the poem, see Valentina Bold, *James Hogg: A Bard of Nature's Making* (Bern: Peter Lang, 2007), pp. 153-66.

[18] Ian Duncan, *Scott's Shadow: The Novel in Romantic Edinburgh* (Princeton: Princeton University Press, 2008), p. 213.