

Moving shadows: The influence of John Keats on the poetry of John Tyndall.

What is there in thee, Moon! That thou shouldst move / My heart so potently?

– John Keats, *Endymion*

John Tyndall, Victorian physicist, was born in Leighlinbridge, Ireland, between 1820 and 1822.¹ John Keats died in 1821 aged twenty-five; had he lived, Tyndall might have talked with him of poetry, as he did with Alfred Tennyson.² In this essay I explore intriguing echoes of the works of John Keats in the poetry of John Tyndall, recently published as a collection for the first time.³

Tyndall is known as an experimentalist, designing exquisitely sensitive equipment to establish, among other things, the physical basis of the greenhouse effect, so important to climate science.⁴ He worked on the nature of light, how glaciers move and even sterilisation techniques against putrefaction.⁵ He was a polymath of science. He was also known for his writing on scientific findings, and on science and religion.⁶

And he wrote poetry, though it was little known. Mostly handwritten in letters and journals,⁷ it is now published as *The Poetry of John Tyndall*.⁸ He wrote of politics, of history, of companionship and love, of the landscape and his feelings for it. Many poems date from early in his life, but powerful late pieces have also survived.⁹

We know that Tyndall knew and admired Keats' work. He says, of a woman's hair as she slept, that 'as poor John Keats has it, it resembled "the feathers of crow/ falling on a wreath of snow"'.¹⁰ Tyndall misquotes 'bed' for 'wreath', a funereal exchange indicating knowledge of the young romantic poet's early death. In 1857, Juliet Pollock promises to lend Tyndall a volume of Keats 'when I next see you',¹¹ and he collects it early in 1858.¹² Also that year, he listens to a friend recite Keats' sonnets by a lake under the stars in Switzerland: 'it was a sweet hour and one which I shall not soon forget.'¹³ His abiding interest is shown by his writing to Hallam Tennyson, in 1892, of Keats' definition of poetry – 'a fine excess.'¹⁴ Tyndall's wife Louisa commented that he was 'keenly alive to the influence of poetry',

¹ The exact year of his birth is unknown, as the records were destroyed by fire. See Jackson 2018, 3.

² John Tyndall discusses with Tennyson his 'innermost thoughts on matter and God.' Jackson 2018, 448 – 449.

³ Jackson, Jackson and Brown, eds., 2020.

⁴ The Tyndall Centre for Climate Change Research is named after him: [www. https://www.tyndall.ac.uk/](https://www.tyndall.ac.uk/)

⁵ This process is called Tyndallisation and is still used today.

⁶ John Tyndall, 'The Belfast Address', *Nature*, 20 August 1874.

⁷ Many are kept in the archives of the Royal Institution, London.

⁸ Jackson, Jackson and Brown, eds., 2020.

⁹ Jackson, Jackson and Brown, eds., 2020, 6.

¹⁰ John Tyndall to Thomas Hirst, 13 July 1853. In *The Correspondence*, vol. 4 letter 0784. Tyndall misquotes John Keats 'To –', in Keats 1888, p19, 11-12: 'Or the feathers from a crow/ Fallen on a bed of snow.'

¹¹ Juliet Pollock to Tyndall, 16 February 1857. In *The Correspondence*, vol. 6, letter 1337.

¹² John Tyndall, Monday 1 March 1858, Journal VII 1858 (Pg 282) RI p1056.

¹³ John Tyndall, 27 July 1858, Journal VII 1858 RI p1078.

¹⁴ John Tyndall to Hallam Tennyson, Alfred Tennyson's son, as a testimony on the poet's death at Hallam's request. 1892, JT to Tennyson, H_92c-nm-nd (RI 3.42).

committing long pieces to memory to recite when walking, and finding poetry ‘a stimulant better than wine’. She includes Keats in a list of poets most read by her husband.¹⁵

Keats’ influence can be found shimmering through Tyndall’s poetry. One of his loveliest works, written on Valentine’s Day 1863, is the sonnet pair ‘To the Moon’,¹⁶ written to Juliet Pollock.¹⁷ He opens with:

Say does the crimson of the drooping rose
When soft it falls upon delighted eyes
Close up those eyes against the glorious sun
Which gives all flowers their odours and their bloom?

Later, he reasons:

These are but melodies of minor note
Which mingle with that grander holier strain
My soul for ever sendeth to that heaven
Where thou dost reign, the Queen of all the Stars.

This echoes Keats’ ‘Ode to a Nightingale’:¹⁸ ‘And haply the Queen-Moon is on her throne, Cluster’d around by all her starry Fays’. Tyndall sends his highest feelings, his ‘soul’, to the ‘Queen of all the Stars’; his queenly moon is a cipher for Juliet Pollock, just as the moon for Keats so often ‘quicken(s) the tides of his imagination’.¹⁹

Tyndall elsewhere uses the Keatsian word ‘darkling’,²⁰ also found in the Ode at its great turn from languorous beauty towards Keats’ sense of his own mortality:

The coming musk-rose, full of dewy wine,
The murmurous haunt of flies on summer eves.

Darkling I listen; and, for many a time
I have been half in love with easeful Death,²¹

For Keats such darkness intensifies the beauties of the earth and his glorious ability to write about them – the mystery at the heart of his ‘negative capability at its most exquisite’.²² He felt this was central to creativity, ‘that is when a man is capable of being in uncertainties, Mysteries, doubts, without any irritable reaching after fact and reason’.²³ Tyndall uses the word ‘darkling’ to describe a ‘maiden’s’ eyes and darker aspects of such attraction, but his use of the term signifies that he was aware of the Keatsian shades behind such beauty.

¹⁵ Louisa Tyndall, 1893/4, RI LT 14/29.

¹⁶ Tyndall, John, 1863, ‘To the Moon’, in Jackson, Jackson and Brown, eds., 2020, 207.

¹⁷ Jackson, Jackson and Brown, eds., 40 – 42.

¹⁸ Mackoviak 2006, 184.

¹⁹ Roe, 93-94.

²⁰ John Tyndall, 1856, ‘Ballad of the Isle of Wight’. In Jackson, Jackson and Brown 2020, 192-202.

²¹ Keats, 1819, ‘Ode to a Nightingale’. In Keats, 1888, 263.

²² Wilson, 2016, 139.

²³ John Keats, letter to his brothers, 1817, cited in Roe, 2012, 201.

Tyndall had great respect for Juliet Pollock, a talented and educated women.²⁴ He developed an intense platonic relationship with her.²⁵ He wrote:

I well remember the first night I ever saw you. It was at Barlow's, and I compared you on that occasion (in my own mind) to a moon, shining with a pure mild light.

The moon is central to much of Keats' poetry. His early 'Sonnet to the Moon'²⁶ is tantalisingly lost, but there are many examples. 'Endymion' tells of the eponymous shepherd beloved of the moon goddess Selene, or Cynthia. Keats weaves her dreamily through his lines, here sparkling on the water on which she exerts her tidal influence:

....her loveliness
Is wan on Neptune's blue: yet there's a stress
Of love-spangles, just off yon cape of trees,
Dancing upon the waves, as if to please
The curly foam with amorous influence.²⁷

There are many other lunar examples; the moonlight bathes Madeline and 'buttresses' Porphyro in 'Eve of St Agnes';²⁸ in 'To George' we have:

'Tis 'the wicking time of night'
Orbed is the Moon and bright

and in another sonnet to his brother, the lines:

Cynthia is from her silken curtains peeping
So scantily, that it seems her bridal night.²⁹

For Keats, the moon bathes a dreamlike sensual world, so too for Tyndall it is a potent romantic symbol. And he is drawing from Keats imagery: moonlight is Keats' 'wicking time'; Tyndall uses the word 'witchery' repeatedly in his poems, to signal enchantment and the power of women to unsettle feelings.³⁰ Pollock was aware that for Tyndall she was the moon: in 1873 she signs herself 'The waning Moon',³¹ and Tyndall's 'The Queenly Moon'³² confirms that 'On Sunday evening drawn by thee', he will 'roll ... to 59', a reference to visiting Pollock's home at 59 Montagu Square, London. The celestial heavens are a Keatsian portal to emotions and feelings far from the scientific work of the day.

Tyndall wrote to Pollock for many years; for a time they corresponded as Eolia (Pollock, the Greek Eolian harp played by the winds), and Boreas (Tyndall, the Greek god of the North

²⁴ Jackson, Jackson and Brown, eds., 2020, 37.

²⁵ Tyndall was a good friend to her husband Frederick, and was fond of their three sons, particularly Walter. In 1860 he wrote to Juliet Pollock enquiring if Walter 'would care anything about the axe with which I ascended Monte Rosa? If so I would present it to him as a Valentine.' *The Correspondence*, Vol. 7, Letter 1678.

²⁶ Given to his teacher and mentor Charles Cowden Clarke in 1813, who recorded the gift in his commonplace book. See Roe 2012, 51.

²⁷ Keats, 1818, 'Endymion', Book III, 82-86. In Keats 1888, 123.

²⁸ John Keats, 1819, 'The Eve of St Agnes'. In Keats 1888, 223.

²⁹ Keats, 1818, 'To My Brother George'. In Keats, 1888, 37.

³⁰ Jackson, Jackson and Brown, eds., 2020, 31.

³¹ Juliet Pollock to John Tyndall, c 1873, Letter 4375, RI/JT/TYP6.2135.

³² John Tyndall, 1863?, 'The Queenly Moon'. In Jackson, Jackson and Brown 2020, 209.

Wind.)³³ Few of Tyndall's 'Boreas' letters have survived, but he writes of Switzerland, 'when there I thought twenty times of writing to you' and signs off with 'Yours ever Boreas'.³⁴ Pollock writes humorously but steamily: 'My dear rude kind tender cruel health giving Boreas',³⁵ and:

The Eolian Harp is dumb if the Breeze fails to seek her – Her music only replies to his invocation, but now that he has touched her heart she is ready with a grateful strain.³⁶

Keats' *Lamia* and its 'Sounds Aeolian Breathed' are perhaps behind this intimate conceit.³⁷

At times, Tyndall's writing appears to be in direct response to Keats, as in his lovely poem 'Alone':³⁸

Upon the high, untrodden, mountain top,
Where the winds whistle and the pine-trees moan,
Amid the solemn grandeur of the night,—
It is not joyless thus to be alone.

The final line mirrors Keats' finale to 'On Leaving Some Friends at an Early Hour',³⁹ reversing its sentiment:

'Tis not content so soon to be alone.

It is strikingly similar: Keats' influence is clear. The apparent dialogue continues, as Tyndall argues for solitude. Describing social 'pleasures which I, too, have proved', he finds them:

... evanescent as a dream,
Which melts like frost-work in an infant's hand

and asks:

With free stretched pinion, let my spirit fly
Like the strong mountain-bird to its own hills;—

Keats of course wrote often of reflective solitude, indeed his first published poem was 'O Solitude'.⁴⁰

Keats' boyhood idyll in the fields and streams of Enfield around his beloved grandmother's home, gave escape from the grim catalogue of death and abandonment in his family. The imagery infuses Keats's poetry. In 'I stood tiptoe upon a little hill'⁴¹:

³³ Jackson, Jackson and Brown, eds., 2020, 42.

³⁴ John Tyndall to Juliet Pollock, 1871, *The Correspondence*, Vol 12, Letter 3657.

³⁵ Juliet Pollock to John Tyndall, April 1870, *The Correspondence*, Vol X, Letter 7453.

³⁶ Juliet Pollock to John Tyndall, N.D., *The Correspondence*, Vol X, Letter 7830.

³⁷ John Keats, 1820, *Lamia*, I, x, 386. In Keats, 1888, 193.

³⁸ John Tyndall, 1848, 'Alone'. In Jackson, Jackson and Brown, eds., 2020, 171.

³⁹ John Keats, 1816, 'On Leaving Some Friends at an Early Hour'. In Keats 1888, 43.

⁴⁰ John Keats, 1817, 'O Solitude'. In Keats 1888, 40.

⁴¹ John Keats, 1817, 'I stood tiptoe upon a little hill'. In Keats, 1888, 2.

The clouds were pure and white as flocks new shorn,
And fresh from the clear brook; sweetly they slept
On the blue fields of heaven, and then there crept
A little noiseless noise among the leaves,
Born of the very sigh that silence heaves

and goldfinches:

... one by one will drop
From low-hung branches; little space they stop;
But sip, and twitter, and their feathers sleek;
Then off at once as in a wanton freak:

He loved also to play by the Salmon Brook, perhaps lying headlong:

Where swarms of minnows show their little heads,
Staying their wavy bodies 'gainst the streams,

Always the moment is fleeting and intense:

If you but scantily hold out the hand,
That very instant not one will remain;
But turn your eye, and they are there again.

John Hamilton Reynolds comments 'We find in his poetry the glorious effect of summer days and leafy spots on rich feelings, which are in themselves a summer';⁴² in Leigh Hunt's words, the 'strong sense of what really exists or occurs'.⁴³

Tyndall, like Keats, had great recourse to Nature's observatory. He loved walking and spent many summers at Belalp in the Swiss alps. Here he would write and think, finding stimulation for his 'scientific imagination':⁴⁴ 'writings lying apparently far apart from science have acted as potent motive powers in urging me forward.'⁴⁵ His work on glaciers arose from these visits,⁴⁶ and he pondered the nature of light and why the sky is blue. He movingly declared, 'We live *in* the sky not *under* it'.⁴⁷

His love of wild places also began early, first along the banks of the River Barrow in Ireland:

⁴² John Hamilton Reynolds, 1817, review of John Keats' *Poems*, in *Champion*. See Cox, 74.

⁴³ Leigh Hunt, 1817, *The Examiner* (6 July 1817) 428-9, (13 July 1817) 443-4, cited in Roe, 2012, 173.

⁴⁴ He defined this as his ability to envisage causal relations between observed phenomena, the underpinning mechanisms of science See Jackson, 2018, 268-9.

⁴⁵ John Tyndall to Hallam Tennyson, 1892, H_92c-nm-nd (RI 3.42)

⁴⁶ He was an accomplished alpine mountaineer. The shoulder of the Matterhorn on the Italian side is named the Pic Tyndall after his ascent to this point. See Jackson, 2018, Chapter 14, 224 – 240.

⁴⁷ Tyndall, 1879, vol. 1, 128.

Large has my love for Nature been,
 I loved her from a child
 I loved her in her summer sheen
 And when the winter wild
 Wrapped storms around her awful brow,
 And ocean formed a throne
 To bear her, Queen and conqueror,
 My love was her's alone⁴⁸

His 'summer sheen' shows his perceptive observation of sunlight gleaming on plant and animal alike,⁴⁹ just as Keats' goldfinches 'sip and twitter', their 'feathers sleek'.⁵⁰

Tyndall frequently speaks through Nature:

The sea holds jubilee this sunny morn
 And I with heart content upon its verge
 Join in the laughter of the breaking waves.
 And glad, right glad the sympathetic land,
 Shaking her hazel tresses in her mirth

Daniel Brown identifies 'romantic pansemiosis' here, an intense, scintillating focus on every aspect of natural life.⁵¹ For Tyndall, 'Nature is a sweeping pantheistic sublime, lifting the spirits and engaging the soul.'⁵² Like Keats, Tyndall is a romantic. Mackoviak suggests that, rather than the 'sterility of a thuggish materialism, ... observation and elucidation (provide) ... the 'unheard music' which ... had so haunted the young Keats, endowing the experiential world with a shimmering, quasi-mystical counterpart to sensible awareness.'⁵³ Far from being scandalised by the 'sickening desire to reproduce the sensual mood' in the 'Fleshly School of Poetry',⁵⁴ as Robert Buchanan notoriously labelled the Pre-Raphaelites, and by extension Keats who they emulated, Tyndall accords with Keats' sensibilities.⁵⁵ His 'supernatural naturalism' rehabilitates romanticism to accommodate materialistic discoveries.⁵⁶ Landscape is sublime because of, not despite, its scientific wonders. He was no dry materialist.

As for religion, Tyndall's 'peculiar form of romantic pantheism'⁵⁷ infuses his late poem 'A morning on Alp Lusgen':⁵⁸

⁴⁸ John Tyndall, prior to 1891, 'My Story of the Screen', in Jackson, Jackson and Brown, 2020, 180.

⁴⁹ Jackson, Jackson and Brown, eds., 2020, 15.

⁵⁰ John Keats, 1817, 'I stood tiptoe upon a little hill'. In Keats, 1888, 2.

⁵¹ Brown 2013, 159.

⁵² Jackson, Jackson and Brown, eds., 2020, 15.

⁵³ Mackoviak, 163.

⁵⁴ Robert Williams Buchanan, 1871, 'The Fleshly School of Poetry: Mr D. G. Rossetti', in *The Contemporary Review*, October 1871, 338.

⁵⁵ Mackoviak, 2006, 163.

⁵⁶ Mackoviak, 2006, 162.

⁵⁷ Jackson, Jackson and Brown, eds., 2020, 9.

⁵⁸ John Tyndall, 1881 and 1892, 'From the Alps: a fragment/A morning on Alp Lusgen'. In Jackson, Jackson and Brown 2020, 210-215. See Jackson, Jackson and Brown 2020 61-66 for poetic influences, particularly Ralph Waldo Emerson's 'The Rhodora'.

The sun has cleared the hills, quenching the flush
Of orient crimson with excess of light.
The long grass quivers in the morning air
Without a sound; yet each particular blade
Hymns its own song, had we but ears to hear.

Pansemiotic intensity is followed by sweeping metaphysical questions:

Unplanted groves! whose pristine seeds, they say,
Were sown amid the flames of nascent stars—
How came ye thence and hither? Whence the craft
Which shook these gentian atoms into form

Tyndall moved from scientific certainty to acceptance of the unknown, a negative capability.⁵⁹ In an 1881 draft, his answer was Darwinian:

... the answer is abroad,
Buzzing through all the atmosphere of mind.
'Tis Evolution! East, West, North and South—

By 1892, he shows uncertainty:

...Science dumb—
Oh babbling Gnostic! cease to beat the air.
We yearn, and grope, and guess, but cannot know.

There is 'power' beyond materialistic investigation; Science is 'dumb' in this mystery, foregrounding the unknowable.⁶⁰ He lays out two universals: 'God and Spirit I know, and matter I know; and I believe in both'.⁶¹ Keats, the medical student, was concerned that 'science had robbed the rainbow of its mystery'.⁶² For Tyndall, it had not.

Also striking is the parallel with Keats' negative capability. It is hard to imagine that Tyndall was not aware of Keats' concept when he wrote his lines.

Tyndall made no claim to the poetic stature of Keats, stating in 1849 that 'I cannot write of love as poets do'.⁶³ Yet he produced some fine poems, and in them the influence of Keats flickers and echoes in their wording, and in their deeper meanings. Keats struggled with the conflict of the possible with the actual as his health faded towards an early death. Tyndall's struggle was to unravel physical processes of nature through the haze of unknowing of the time, revealing scientific truths through painstaking experimental work. Yet his sense of

⁵⁹ Jackson, Jackson and Brown, eds., 2020, 61.

⁶⁰ Jackson, Jackson and Brown, eds., 2020, 61.

⁶¹ John Tyndall to Tennyson, 1890, cited in Jackson, Jackson and Brown, 2020, 61.

⁶² Roe, 2012, 80-81.

⁶³ John Tyndall, 1849, 'I cannot write of love as poets do', in Jackson, Jackson and Brown 2020, 176.

wonder never left him, drawing sustenance from the natural world and from poetry such as that of John Keats. Both men:

... travers'd to and fro, to acquaint
Himself with every mystery, and awe.⁶⁴

⁶⁴ John Keats, *Endymion*, ii, 258-271.

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