

2011 WARTON LECTURE ON ENGLISH POETRY

Many-Coloured Glass, Aerial Images, and the Work of the Lens: Romantic Poetry and Optical Culture

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THIS LECTURE PROVIDES an opportunity to make good an omission in *Victorian Glassworlds*.¹ There I wrote of Victorian poetry through the poetics of the lens and the reflecting and refracting power that created what David Brewster called ‘aerial images’.² But since the book described mid-nineteenth-century optical culture I was unable to elucidate in detail the earlier genealogy of these images in romantic poetry—how romantic poets responded to images made by the lens. In fact this was the period when public spectacle began an exuberant exploitation of the non-mimetic image made with the aid of glass by light out of light, a newly mobile image that could be thrown from one surface to another.

We have begun to call such images ‘virtual images’. Though this terminology loosens stricter definitions of the virtual in nineteenth-century science, which distinguished between ‘real’ and ‘virtual’ lens-made images, I have adopted this general term for the projected image.³ The purest form

Read at the Academy 11 May 2011.

¹Isobel Armstrong, *Victorian Glassworlds. Glass Culture and the Imagination 1830–80* (Oxford, 2008).

²David Brewster, *Letters on Natural Magic: Addresses to Sir Walter Scott Bart* (London, 1832), p. 63.

³See David Brewster, *A Treatise on Optics* (1831), new edn., rev. A. D. Bache (Philadelphia, PA, 1854), p. 48. ‘A “virtual” image is an erect image formed in a mirror or other reflective surface from which light rebounds. A “real” image, Brewster explained, is formed in the air by the actual union of rays in a focus and is inverted.’ Armstrong, *Victorian Glassworlds*, p. 285.

of such projected imagery was Newton's screening of the seven colours of the spectrum. A pinhole in his 'window shuts', as he called them in 1671, describing his revolutionary experiment, the 'Suns light', a 'Prisme at his entrance, that it might be thereby refracted to the opposite wall', was all that was required for the 'vivid and intense', 'connate', as he termed them, or intrinsic colours of the spectrum to be birthed.⁴ The different rates at which these rays travelled as they were split and bent by the lens—red, yellow, orange, green, blue, indigo, violet—were understood for the first time. This screening of the spectrum perfected science's understanding of the rainbow, but confirmed that the rainbow was an artefact determined by the human observer, the position of the sun, and droplets of water.⁵ This screening was a precondition of modernity. On similar forms of screening 'high' science depended for the refracted or reflected images of the telescope. The projection of the camera obscura and the lenses of the magic lantern, forms of optical technology known since the renaissance but remade by entering popular spectacle in the late eighteenth and early nineteenth century, also required it.⁶ Scientific imaging and the optical illusions of spectacle depended on exactly the same technology. So did the coloured screens and transparencies, filtering light, of the diorama. So did those spectral experiments in trauma first popularised in revolutionary France, the phantasmagoria, the most powerful virtual images of romantic modernity.⁷ Projected in utter darkness, spectres, ghosts, phantasms, skele-

⁴Isaac Newton, *Philosophical Transactions of the Royal Society*, 80 (19 Feb. 1671/2), 3075–87 at 3075. 'A Letter of Mr Isaac Newton ... containing his New Theory about Light and Colours', *The Newton Project*, <www.newtonproject.sussex.ac.uk/>. 'Newton's Scientific papers.' Catalogue Record NATP00006. Accessed 29 April 2012.

⁵Though Descartes understood the physics of the rainbow through refraction and reflection, Newton finally explained its colours through the splitting of light. See Philip Fisher, *Wonder, the Rainbow, and the Aesthetics of Rare Experiences* (Cambridge, MA, and London, 1998), p. 104. Joseph Priestley structured his history of theories of light and colour round key historical periods from Aristotle onward in which the rainbow recurred as one of the central problems of optics. Joseph Priestley, *History and Present State of Discoveries Relating to Vision, Light and Colours*, 2 vols. (London, 1772).

⁶Richard Altick, *The Shows of London* (Cambridge, MA, and London, 1978), is a classic history of the evolution of spectacle since the Renaissance. See also Stephen Herbert, *A History of Pre-Cinema*, 3 vols. (London and New York, 2000); Barbara Maria Stafford, *Body Criticism: Imaging the Unseen in Enlightenment Art and Medicine* (Cambridge, MA, 1991).

⁷I am indebted to recent historians of poetry, spectacle and optical culture in the late eighteenth and early nineteenth centuries: William Galperin, *The Return of the Visible in British Romanticism* (Baltimore, MD, and London, 1993); Tom Gunning, 'The long and the short of it: centuries of projecting shadows, from natural magic to avant garde', in *Art of Projection: Elsewhere*, ed. Christopher Eamons and Stan Douglas (Berlin, 2009), pp. 23–39; Robert Miles, *Romantic Misfits* (Basingstoke, 2008); Peter Otto, *Multiplying Worlds. Romanticism, Modernity, and the Emergence of Virtual Reality* (Oxford, 2011); John Plunkett et al. (eds.), *Popular Exhibitions, Science and*

tons, decapitated heads, the Medusa, and historical figures of the French terrors such as Robespierre, Danton and Marot, were made to recede from and *lunge* upon observers by the manipulation of an advancing or retreating magic lantern behind gauze. They created shock and panic and perceptual dislocation in viewers, who found their own body space invaded by the art of shadow. 'Objects freely originate in the air', as a practitioner put it, in the shows that proliferated after 1800.⁸ Optics, astronomy, the diorama, the phantasmagoria (etymologised from 'a gathering of ghosts'), formed a continuum.

This first era of mechanically reproduced imagery was historically unprecedented. The images of the new media were not grounded in equivalents in the world. Now that non-mimetic simulacra without correlatives were mediated in the projected image, disrupting traditional understanding of the image, displacing human agency, a new urgency gathered round a question always incipient in poetry: what is an image? what is a semblance? Without counterparts in the world, 'phantoms of the absent',⁹ as Philipsthal, an early sponsor of the phantasmagoria, called them, such images were nevertheless vividly experienced by the sensoria. Both the act of seeing, the eye itself, and what we see, became problematised. In poetry technological discovery precipitated ontological enquiry. Philosophical questions become embedded in poetic language. What is an image? This question penetrated deep into the imagination of poets of the late enlightenment. The theme of my lecture is the poets' inquiry into the status of the image or semblance. Aesthetic semblance, Schiller said, 'neither seeks to represent reality nor needs to be represented by it':¹⁰ but what sort of 'reality' or alternatively 'ideal' world does a lens-created image occupy? Rival? Mechanic surrogate? Analogue? Supplement? How does it challenge the traditional image-making power of the poet?

It is not surprising that the poets I discuss are possessed by reflections. This is the first of two ways of thinking through the status of the glass-made

Showmanship, 1840–1910 (London, 2012); Sophie Thomas, *Romanticism and Visuality. Fragments, History, Spectacle* (London, 2010); Marina Warner, *Phantasmagoria: Spirit Visions, Metaphors, and Media into the Twenty-First Century* (Oxford, 2006); Gillen D'Arcy Wood, *The Shock of the Real: Romanticism and Visual Culture, 1760–1860* (New York and Basingstoke, 2001).

⁸ Paul Philipsthal's publicity in *The Times*, 26 Oct. 1801. Quoted in Otto, *Multiplying Worlds*, p. 110.

⁹ Quoted in Thomas, *Romanticism and Visuality*, p. 156.

¹⁰ Friedrich Schiller, Elizabeth M. Wilkinson and L. A. Willoughby (eds. and trans.), *On the Aesthetic Education of Man in a Series of Letters* (Oxford, 1967), p. 199. For Schiller 'semblance' is not transcendent, not in antithesis to reality, because it is a form of actuality itself, and brings out in reality what was unknown before. Thus it creates a deeply cognitive experience.

image of the lens. First, poets consider the organic production of the virtual image in the natural world, reflections in the kindred transparency of water. Wordsworth and Coleridge puzzled over a stone at Rydal Lake that was so fused with its reflection that it seemed not to possess one. (Coleridge, rather smugly, detected the reflection before Wordsworth.)

[T]he shore & green field, a Hill bank below that Stone, & with Trees and Rock forming one brilliant picture without was such, that look at the Reflection and you annihilated the water | it is all one piece of bright Land | just half-wink your Eyes & look at the Land, it is then *all* under water, or with that glossy Unreality which a Prospect has, when seen thro' smoke.¹¹

He later said, about another reflected image of weeds in water—“Thought and Reality two distinct corresponding Sounds, of which no man can say positively which is the Voice and which the Echo.”¹² Just as an echo might be prior to sound, so the constituents of the image, thought and reality, might be reversed. The act of duplication may be the act of origination. ‘The cope of heaven imaged in a dewdrop’, he said much later in *Lay Sermons*, posed an ‘infinite problem’ by mirroring that which supposedly mirrored it.¹³

A passage in Book 4 of *The Prelude* (of 1805) has an affinity with the Notebook comment. The poet researches an underwater spectacle where solid objects in the water and reflections from above cohabit: ‘Beneath him in the bottom of the deeps’ the viewer sees the ‘weeds, fishes, flowers, | Grots, pebbles, roots of trees—and fancies more’.¹⁴ He cannot ‘part’ (almost a term of logic here) ‘The shadow from the substance’ (l. 255). In that dazzlingly open and suggestive syntax of which Wordsworth was supreme practitioner, the poet cannot part reflections from the water itself, cannot ‘part’ reflections from solid objects in the water, and cannot separate out what is above and below—the rocks and sky, the mountains and clouds. In yet another reading the aqueous element makes the *categories of shadow and substance* themselves uncertain—in reflection the virtual images of rocks and sky, mountains and clouds, give up their differences. Thus the terms of shadow and substance cease to become ways of expressing the double or the image because the two terms no longer belong to an

¹¹ *The Notebooks of Samuel Taylor Coleridge*, 4 vols., Kathleen Coburn with Merton Christiensen (eds.) (Princeton, NJ, 1957–1990), item 1844 (Jan. 1804).

¹² Coburn, *Notebooks*, item 2557 (April 1805).

¹³ Samuel Taylor Coleridge, *Lay Sermons, Collected Works*, 4, R. J. White (ed.) (Princeton, NJ, 1972), p. 50.

¹⁴ William Wordsworth, *The Prelude 1799, 1805, 1850*, Jonathan Wordsworth, Stephen Gill and M. H. Abrams (eds.) (New York and London, 1979), ll. 252–3.

antithesis between material and aerial worlds. So what is it to image? The observer cannot part himself from these reflections either, which are 'crossed' by the refractory 'gleam' of 'his own image' and of sunlight (ll. 258–9). Refraction is a 'crossing' of light: Wordsworth's language itself acts as a prism, deflecting and redirecting, 'turning' or bending meaning. The traditional word in rhetoric for expressing multiple meaning, the 'turn', has been 'turned' to take on the action of a lens, splitting meanings. It seems that for Wordsworth image making is an unfinished process in which oppositional terms are in a state of change.

The poets' second way of inquiring into the status of imagery in an optical culture that depends on simulacra was through a deep encounter with colour, 'the gorgeous train | Of parent colours', as James Thomson described the spectrum in his celebration of Newton,¹⁵ or 'the erotics of colour' as Philip Fisher describes it.¹⁶ The spectrum, as one of the original sources of the virtual, made poets hypersensitive to the way we image the world in colour and light. Coleridge, ill in bed, is fascinated by the 'prismatic colours' transmitted by a glass tumbler.¹⁷ We remember the 'peculiar tint of yellow green' in the western sky of his 'Dejection. An Ode' (1802, l. 14). When Shelley wrote of 'living hues' in the first section of 'Ode to the West Wind' (1820), he meant that colour *was* alive—in two senses.¹⁸ It is a property of light in movement: in his poem the blue end of the spectrum, the most refrangible, or that most capable of bending through transparent matter and thus the most rapidly moving component of light, is the sign of the movement and speed he desired for change. Moreover, colour is the creation of what can reflect back components of the spectrum—as 'azure moss' (l. 35) reflects the sky—and so it is not only an image of transformation but *is* transformation.

Colour could be seen as intrinsic to the music of poetic language. Joseph Priestley, likening colour and music, thought that the different vibrations of the elements of the spectrum and the harmonies by which colours could be combined were like the different vibrations of musical notes.¹⁹ For Priestley, colour and Newton's prism were at the heart of a philosophical reading of matter. He argued in *Disquisitions Relating to*

¹⁵ James Thomson, 'To the Memory of Sir Isaac Newton' (1727), ll. 101–2, *The Poems of James Thomson*, J. Logie Robertson (ed.) (London and New York, 1908).

¹⁶ Fisher, *Wonder, the Rainbow*, p. 35.

¹⁷ Coburn, *Notebooks*, item 925.

¹⁸ 'Ode to the West Wind' (1820), l. 12, *Shelley's Poetry and Prose*, Donald H. Reiman and Sharon B. Powers (eds.) (New York, 1977).

¹⁹ Priestley, *History of Discoveries*, 2, p. 782.

Matter and Spirit (1777) that since material particles of light could pass unobstructed through other dense material bodies such as glass, crystal and diamonds (the prism again), the solidity of matter was a fallacy: these media ‘had no solid parts’.²⁰ Matter and soul possessed the same properties (p. 45). He invoked his own *History of Discoveries Relating to Vision, Light, and Colours* to prove that ‘[A]ll the phenomena of *light* are most remarkably unfavourable to the hypothesis of the solidity or impenetrability of matter’ (p. 18). The thinking faculty is not, as Locke claimed, of the immaterial soul, but of the body: colours can only be perceived through the eye and the optic nerve, for example (p. 54). The distinction between materiality and immateriality broke down here, but if matter was alive, reality was self-transforming rather as an image was transformative. A Priestleyan reading would mean that when Shelley wrote the famous words from ‘Adonais’ (1821) in the title of this lecture, ‘Life, like a dome of many-coloured glass | Stains the white radiance of eternity’, the many-coloured dome of living being would filter the everlasting ethereal matter, the light, of eternity.²¹ This white radiance would be indelibly marked by life, not the other way round. The vowels of ‘Stains’, flung to the beginning of the line, turn up again in ‘radiance’, as if fused with it. With wonderful openness the words allow that a stain can sully as well as penetrate.

The materiality or immateriality of light and colour, and the extent to which the action of transmitted light is an *image* of transformation or transformation itself finds a wonderful exploration in the disrobing scene in Keats’s ‘The Eve of St Agnes’ (1820). Madeline’s figure becomes a screen for the colours of the stained glass window that, back lit by the moon, are thrown onto her body as she undresses beneath it.²² The intensity of the window’s ‘shielded scutcheon’ that ‘blush’d with blood’ (l. 216), and its deep ‘stains and splendid dyes’ (l. 212) are transmitted to the ‘Rose-bloom’ (l. 220) on her hands, the ‘soft amethyst’ (l. 221) projected onto her silver cross, and the ‘glory’ (l. 222) or halo on her hair. How intrinsic, or ‘conate’ as Newton called it, are the colours transmitted to her, and the hierarchical violence they signify? A near homonym in Stanza 25, the ‘warm gules’ (l. 218), pronounced with a soft ‘g’, the heraldic term for the intense red of warfare and violence projected onto her breast, meets with her unclasped ‘warmed jewels’ (l. 228) in Stanza 26, asking the question whether the genealogy of violence is superficial or effects a material trans-

²⁰ Joseph Priestley, *Disquisitions relating to Matter and Spirit*, 2nd edn., 2 vols. (Birmingham, 1782), 1, p. 19.

²¹ ‘Adonais’ (1821), ll. 462–3, *Shelley’s Poetry and Prose*.

²² John Keats. *The Complete Poems*, John Barnard (ed.) (London, 1988), Stanzas 24–6.

formation. Gules and jewels are both inherited, but jewels can be taken off. Certainly the angel ‘free from mortal taint’—we go back to the stain of the windows—is Porphyro’s exaggeration. Keats may be reflecting in a subtle revisionary way on the second chapter of Walter Scott’s *Waverley* (1814), in which a burst of sunlight gleaming through a stained glass window and its central scutcheon of family arms convinces Sir Everard to maintain and conserve his rigid family traditions, an essentially conservative moment that is prefaced by a discussion of the warlike symbolism of gules.

In ‘Portrait the Third’, Amelia Opie used changing colours of ‘Foil, flowers, and gauze’ (l. 11), the components of the kaleidoscopic image, to speculate in a late poem (1834) on the ‘new positions’ and ‘new semblances’ (l. 13) of a kaleidoscope when shaken as a model of senile dementia.²³ When ‘together shaken’ as madness ‘shakes the brain’ (l. 12), coloured images are ‘on each other cast’ (l. 17), multiple reflections that mirror each other and change ‘Their relative position’ (l. 16). As Opie repeats ‘shaken’, shakes, ‘new positions’, ‘relative position’, these words themselves act kaleidoscopically, changing their positions, as she is forced, in the same way, to respond to the ‘transforming power’ (l. 20) of the new image of madness and rethink her memories of a revered mentor. Opie’s language, restructuring itself, becomes genuinely philosophical as she contemplates this new ‘philosophical instrument’, and the way not only the delirious subject but also the sane observer reciprocally change their images of the past. Is this a self-referring image or a transformation of perspective? Through the very structure of the poem’s language she asks, What is a ‘semblance’?

* * *

The words ‘gleam’ and ‘hue’—that is, reflection and colour—belong to the semantic core of Romantic vocabulary: having looked briefly at poets’ researches into the image through reflections and colours, challenged by the new modernity of the virtual image, I turn for the rest of this lecture to five poets who responded to the virtual image in different ways. First, the telescope in Anna Barbauld’s ‘A Summer Evening’s Meditation’ (1773), and the contrasting use of the phantasmagoria in Wordsworth’s 1805 *Prelude* and in Shelley’s *Prometheus Unbound* (1820), all poets who were willing to use the resources of the new media to explore the image. The diorama in Charlotte Smith’s *Beachy Head* (1807) and finally the Blake of

²³ *The Collected Poems of Amelia Alderson Opie*, Shelley King and John Pierce (eds.) (Oxford, 2009).

Songs of Experience (1794) end this lecture, poets who were deeply hostile to the usurpation of the image by mechanical means.

Liberated by the lens of the telescope and its revelations, Anna Letitia Barbauld's 'A Summer Evening Meditation' (1773) contemplates 'trackless deeps of space' (l. 83) and 'ten thousand suns' (l. 84) in the starscape as a new imaginative source for poetic imagery.²⁴ It can't be emphasised too much that the telescope revealed an utterly new visual world. But she does more than describe: her poem contemplates what it would mean to generate new 'aerial images' *ab initio* in the universe.

Her extraordinary two-part poem, almost two poems in one, which perhaps ought to be called a heroic lyric, meditates in its first section on the myriad 'trembling fires' (l. 27) and 'dancing lustres' (l. 28) of the starry universe 'where the unsteady eye | Restless and dazzled, wanders unconfined' (ll. 28–9) in the 'boundless blaze' (l. 27). All these sibilants seem to combine unsteadily, to suffer from phonemic vertigo, as the act of sight gives over the ownership of the eye in these lines. By the time of the late Enlightenment it was not Newton's stable universe but William Herschel's endless cosmos that dominated astronomical thinking.²⁵ Herschel stressed that the 'construction' of the heavens was not to be experienced as a 'concave surface of a sphere' (p. 157) with the viewing subject at the centre but as a series of strata 'variously inclined and directed' (p. 158) on analogy with the contours of geological strata; the displaced eye means that we are living in a condition of parallax or non-convergent relations, a change in the observer's position that produces a displacement in what is observed. There could be no centre for 'an eye placed somewhere within' (p. 160) the strata. Though she writes of the 'blue concave' (l. 24) here, her 'dazzled' eye suggests that she is nearer to the geological model than to a Newtonian account of the universe. She was writing too early for Herschel to be a presence in her poem, but she would have known his precursor, Thomas Wright of Durham, and possibly the work of Kant.²⁶ Joseph Priestley, her mentor, was at the forefront of astronomical thinking. (Priestley, an interesting connection, was fascinated by 'orreries', models of planetary move-

²⁴ *The Poems of Anna Letitia Barbauld*, William McCarthy and Elizabeth Kraft (eds.) (Athens, GA, 1994).

²⁵ William Herschel, 'Account of some observations tending to investigate the construction of the heavens' (1784), *Collected Scientific Papers of Sir William Herschel*, 2 vols., J. L. E. Dreyer (ed.) (London, 1912), I, pp. 157–66 at 157. This paper, together with his 'On the construction of the heavens' (1785), marked an important theoretical shift. The equanimity of a Newtonian universe sustained by gravity encountered a de-centered and dynamic universe of growth and decay.

²⁶ Thomas Wright published his *An Original Theory or New Hypothesis of the Universe*, devoted to the nature of the Milky Way, which he conceived as a vastly extended plane, in 1750.

ments that became popular spectacles. He patronised the lecturer Adam Walker, whose accounts of the orrery enchanted the young Shelley at Eton.²⁷)

Certainly Barbauld's poem works with the innovative principles of the new astronomy, as Anne Janowitz has pointed out, and from whose discussions of Barbauld's poem I have learned.²⁸ This first dizzying section gives place to an extraordinary confidence in the second, in which she imagines herself in flight in the starscape itself. In fact, the transition from the first to the second part of the poem means that Barbauld's eye sees paralactically from two places, from the earth and the sky, from below and above. Here she can acknowledge that an 'embryo GOD' (l. 56) might dwell within her self: her soul can 'stretch her powers' (l. 113), *imagine* the new cosmogony and travel in it *as* it is imagined. 'I sail' (l. 72), 'I launch into the trackless deeps of space, | Where, burning round, ten thousand suns appear' (ll. 83–4). It is possible to imagine beyond the limits of our known, empirical universe. This part of the poem works with a language of boundary—the border, the verge, the confine—and the breaking of boundaries. The new astronomy recognised what Wordsworth in 'Tintern Abbey' (1798) called 'the light of setting suns', that vast changes of growth and decay were going on in the nebulae simultaneously, opening up empty spaces, destroying star systems.

But it is not simply the vastness of space and the numerical sublime of ever new solar systems that concerns her. It is that these universes are *thought* into being. The limits of thought and the limits of the universe coincide. Kant's *Universal Natural History and Theory of the Heavens* had envisaged infinity, in 1755, as a necessarily incomplete universe: 'Creation is not the work of a moment.'²⁹ The divine mind was continually reclaiming parts of the universe from chaos and creating new star systems, reaching limits and going beyond them: 'The sphere of developed nature is always but an infinitely small part of that totality which has the seed of future worlds in itself' (p. 145); 'It is not a small pleasure to sweep in imagination beyond the boundary of the completed creation into the region of chaos, and . . . unformed space' (p. 146). This is exactly the trajectory of the second part of the poem. The poem's dense clausal structure continually launches and relaunches the poem forward: the generation of dependent clauses literally depends upon those words that mark the

²⁷ Richard Altick, *Shows of London*, p. 81.

²⁸ Anne Janowitz's work on Barbauld and astronomy will be available in her forthcoming book, *Stellar Poetics: Commonplaces of the Night Sky, 1660–1800*, to be published in 2013.

²⁹ W. Hastie (ed. and trans.), *Kant's Cosmogony* (Glasgow, 1900), p. 145.

a prioris of space and time—whence, where, while, from—by which the universe and human experience is organised. The empirical eye, a repeated word, of the first part gives way to the scene of thought as the soul ‘Turns inward’ (l. 54). Vertigo gives way to imaging.

My point is not that Barbauld has created a Kantian poem—we do not even know, as I have said, that she read his work. She was exploring parallel ideas in order to contemplate the generative nature of thought, and to bring that generativeness into being in the movement of the poem itself performatively as a capacity to create images. The image here is neither the aerial image of the telescope or a secondary semblance: it is part of mind’s cognitive being, its reality. More to the point *the poem* is the mind’s reality, not a second order commentary on it. Barbauld recognises that the female self can create godhead, even while she wonders where, in this decentred universe, the creator, the ‘mighty mind’ (l. 100), can be found—‘Where shall I seek thy presence? (l. 102)’ Barbauld boldly addresses Coleridge’s question: ‘Thought and Reality two distinct corresponding Sounds, of which no man can say positively which is the Voice and which the Echo.’

Barbauld engages with the ‘high’ science of the ‘philosophical instrument’. Wordsworth pays his respects to this culture: almost the only high intellectual figure he mentions in the Cambridge section in Book Three of the 1805 *Prelude*, during his rush from ‘tutors or to tailors as befel’ (3, l. 26), is Isaac Newton. He spares notice for ‘The antechapel, where the statue stood | Of Newton with his prism and silent face’ (3, ll. 58–9). But he was also intensely aware of the shows of London, as Richard Altick termed them, and their ‘motley imagery’, as he calls it in the London passages of the *Prelude* of 1805 (7, l. 150). By the time he was writing the *Prelude* he was using the word ‘spectacle’ self-consciously in the modern sense of a constructed optical scene. He describes both the ‘microscopic vision’ of the peepshow and the gigantesque panorama (7, ll. 261–4), producing ‘A whole horizon on all sides’ (7, l. 259). The raree show, the eidophusikon, the diorama, the phantasmagoria—all these were within his reach. The panorama placed the observer on a ‘pinnacle’ (l. 261) to view ‘lifelike mockery’ (l. 263), ‘mockery’ because of its frameless simulation of a visual scene. The allusion is to the New Testament, and actually conflates two temptations of Christ by Satan. Wordsworth modernises the temptation as a hubristic optical ownership, the temptation to mechanised imagery and lifelike mockery. The field of vision itself is virtualised.³⁰ The virtual-

³⁰ For a discussion of the panorama in Romantic poetry and of Walter Benjamin’s account of the panorama as the ‘city that dilates to become a landscape’, see D’Arcy Wood, *The Shock of the Real*, p. 101.

ity of the phantasmagoria posed a different problem for him. Their spectral images could not be described as 'lifelike mockery'. The phantasmagoria were not a simulation of visuality so much as a disorientation of optic coordinates, as the invisible gauze behind which they were projected provided no screen for the eye to relate to. Much discussed in contemporary readings of visual culture, they have been seen in terms of their disruption of the sensoria,³¹ as figures for disembodied thought,³² images of the dream state,³³ as images of absence itself,³⁴ and, from Baudelaire and Marx through to Benjamin and Adorno, as cultural metaphors for the phantasmatic nature of ideology and commodity.³⁵ These contexts help, but I think the peculiar terror of the phantasmagoria for Wordsworth arose because they appeared to be projected into the same body space as that of the watcher and complicated the border between the real and the unreal, corporeal and incorporeal. Thus they introduced the same question raised by Priestley's account of matter: the distinction between material and immaterial is blurred; if we can encounter immaterial matter, by the same token the immaterial has corporeal life. What kind of entity are these technologically made spectra? What are these undead images?

The famous boat-stealing incident in Book I of the *Prelude* encounters this problem literally head on. The 'bound' (1, l. 399) of the horizon, where the seemingly static cliff 'uprose' (1, l. 394) against a grey and starry sky, is violently broken when that same cliff or mountain 'upreared its head' (1, l. 408). At once a severed head endowed with motion *and* an entity that 'strode', uncoordinated body parts, the mountain begins to encroach on the boy's body. Its 'voluntary power instinct' (1, l. 407) is the direct result of the changing optical relation of the rowing boy to the horizon. But the poet's careful '*as if* with voluntary power' does not assuage the optical illusion. The terror of the phantasmagoric head is far in excess of this rational explanation, as the starry grey sky acts as a screen for the mountain image. 'Everything about history that, from the very beginning, has been untimely, sorrowful, unsuccessful, is expressed in a face—or rather the death's head', Walter Benjamin wrote of post-classical culture, in words that might describe the trauma of the phantasmagoria.³⁶ The peculiar sense of void in this episode comes about from the barren nature

³¹ Gunning, 'The long and the short of it'.

³² Miles, *Romantic Misfits*.

³³ Otto, *Multiplying Worlds*.

³⁴ Thomas, *Romanticism and Visuality*.

³⁵ See Svetlana Boym, *Another Freedom* (Chicago, IL, 2010), pp. 22–4; 122–3.

³⁶ Walter Benjamin, *The Origin of German Tragic Drama*, John Osborne (trans.) (London and New York, 1998), p. 166.

of optical illusion, which has no counterpart, while yet sustaining a coercive power on the nerves and mind. In the aftermath of this horror, ‘huge and mighty forms that do not live | Like living men moved slowly though my mind | By day, and were the trouble of my dreams’ (1, ll. 424–6). The syntax moves in two incompatible ways. Huge and mighty forms that do *not* live, move through the mind *like* living men. Dead entities take on the similitude of life. Or, huge and mighty forms that do not live *like or as* living men, but *live* nevertheless, move through the mind. Live entities alien to human life take over the mind. The status of these images becomes an ontological problem—an experience that is at once uncannily dematerialised *and* corporeal. Each alternative cancels the other but creates a haunted dialectic from the ruins of the same syntax. This is another occasion when refractive meanings occupy the same syntax, bending and splitting meaning.

Critics have reminded us, in this context, that Lockian empiricism equated sense data with images or ideas in the mind.³⁷ Wordsworth spoke of the ‘image’ in Book 1 as a two-directional entity: he speaks of ‘external things’, ‘Forms and images’ (1, l. 165) that are also inward, ‘depicted on the brain’ (1, l. 430), in his words. But the ‘huge and mighty forms’ complicate this dualism with teleological uncertainty and make problematic the very terms of image-making.

But brilliantly, Wordsworth counteracts optical illusion with its own power. In the skating episode the boy moves mountains, reversing the power of the mountains over him. The skater’s motion induces the sense of a moving world. When the boy, aware of the speed-induced movement of the ‘shadowy’ (1, l. 480) banks, ‘Stopped short’, the ‘solitary cliffs | Wheeled by me, even as if the earth had rolled | With visible motion her diurnal round’ (1, ll. 484–6). Kant called such illusions ‘philosophical’ illusions, experiences we cannot help having this way (such as the sun being enlarged at the horizon) even when we *know* they are not the case.³⁸

Here the boy actively collaborates with the universe in making images. ‘I . . . sportively | Glanced sideways, leaving the tumultuous throng, | To cut across the image of a star | That gleamed upon the ice’ (1, ll. 474–8). Wordsworth could not decide between ‘shadow’ (1799), ‘image’ (1805), and ‘reflex’ (1850). In 1805, an ‘image’ or *figure* of the star replaced ‘shadow’. Here, the image of the star would be in movement, a displace-

³⁷ Miles, *Romantic Misfits*, p. 69.

³⁸ Immanuel Kant, *Critique of Pure Reason* (1781), 2nd edn., Norman Kemp Smith (ed. and trans.) (London, 1933), pp. 299–300.

ment produced by the moving body of the skater himself, chasing the star. The virtuosic moment when the cutting of a figure across the figure of the star is achieved, when the virtual image in the glassy surface of the ice, an image made by light millions of years old emanating from the star above, is captured by the body and comes into relation with it, is an exhilarating moment of union. It brings the body phenomenologically into relation with the cosmic universe as the body dynamically alters the environment it enters by acting upon the ice and the star. The body writes itself in the material element of reflection as the skater literally cuts a figure. But when we remember Priestley's assertion that light travelling through transparent bodies dissolves claims for the solidity of matter, it seems that all these elements are in fluid continuum with one another. The poet can justly say that he has been 'drinking in' (1, l. 590) light itself. Here Wordsworth fulfils a need of Romantic culture to bring the celestial universe close to terrestrial perception. Optics and astronomy are indivisibly part of one another. Priestley and Erasmus Darwin (in *The Botanic Garden* (1791)) describe a telescopic image of the heavens exhibited through a camera obscura and brought in close proximity to the observer: 'the face of the sun [seen] so distinctly, as in a mirror, without so much as turning their faces towards it [the sun]' (Priestley); 'So the clear Lens collects with magic power | The countless glories of the midnight hour; | Stars after stars with quivering lustre fall, | And twinkling glide along the whiten'd wall' (Darwin).³⁹

I turn now to the very different ways that Shelley used the resources of the phantasmagoria and its 'phantoms of the absent' to explore the nature of the image. But before I speak of *Prometheus Unbound* (1820) I must make a proviso. It is clear that Wordsworth is exploring the genesis of violence and terror in the scenes I have discussed. Likewise, with Shelley's intransigent realism, his creative Spirits arrive at Prometheus's side from sacked cities, scenes of carnage and violence. Phantasmagoric spectacle deliberately re-evoked psychologically the peripeteia, the upheaval and violence, of the Terrors of the French revolution. As Sophie Thomas has reminded us, lantern projection had sinister overtones, since the meaning 'lanterne' in French is scaffold, the place of the severed head.⁴⁰ Revolutionary experience is important for all the poets I discuss. I hope you will see it as a subtext of this lecture. It is the necessary corollary of

³⁹ Priestley, *History of Discoveries*, pp. 118–19. Erasmus Darwin, 'The Botanic Garden', *Poetical Works*, 2 vols. (London, 1806), 1, p. 6, ll. 90–3.

⁴⁰ Thomas, *Romanticism and Visuality*, p. 156.

an account of image-making in optical culture. But for obvious reasons of time I can only allude to it here.

In *Prometheus Unbound*, seen panoramically from the hero's rocky pinnacle, an environment of semi-substantial, transparent vapours, mists, cloud, and spray, hosts the phantasms, phantoms, spirits, apparitions, Images, Daemons, fiends, furies, doubles, voices, that proliferate in Shelley's mythic heterotopia. Quintessentially phantasmagoric images invade Prometheus. Insubstantial 'shapeless sights' (1, l. 37) come wandering by, he tells us. This typical Shelleyan paradox is an act of linguistic shape-changing: a 'shapeless' sight is logically unseeable. But the void forces a creative act imaging as the mind addresses the negation of shape. The insistent dematerialising suffix, '-less', insistently introducing things *without* properties, strangely *adds* in order to deny—shapeless, sleepless, eyeless, wingless. Shelley's transparent, weightless, diaphanous language creates both afterimage and nascent form. Its dematerialising action dissolves the antithesis Wordsworth retained, albeit interrogatively, between corporeal and incorporeal, matter and spirit. Shelley appears to be the nearest to Schiller's understanding of 'semblance', which 'neither seeks to represent reality nor needs to be represented by it', than any of his contemporaries.

But Shelley was aware that *Images* have material effects. We see this in his use of reflection and transparency. In Prometheus's world the mirrorings of reflection and echo alike are *first order* experiences wrought out of the same elements. Coleridge's voice and echo, image and imaged, have no priority to one another. It is their interchange that creates reality. Shelley turns the virtual world of artificial simulation against itself by declaring that all experience belongs to the reflective and projective imagination. It is possible to meet one's own image, like Zoroaster 'walking in the garden' (1, l. 193), as a living experience. Reality depends upon reflection and projection: mutually reflected joy between lovers, or the 'aerial crimson' reflected from the rose picked by a priestess that 'falls, flushing her cheek' (1, l. 469), is form-creating. The Furies are given substance, their very being, by the power of their victim's imagination, as they reflect back the fear projected from those they torture. And so, exults the Second Fury, 'from our victim's destined agony | The shade which is our form invests us round' (1, ll. 470–1). To image this perverse, sadomasochistic vision they choose those things where the projective imagination is most creative, erotic passion and religious feeling, and turn creative feeling into destructive feeling.

But reflection structures all experience, good and bad. In the beautiful lyric spoken by the fourth Spirit, as it dreams to the somatic rhythm of the poet's respiration, Shelley creates a reflective sonics that devolves sounds rather like the movement of lake-reflected sunlight it describes, devolved light, as it moves across the bees and the ivy.

On a Poet's lips I slept
 Dreaming like a love-adept
 In the sound his breathing kept;
 Nor seeks nor finds he mortal blisses
 But feeds on the aerial kisses
 Of shapes that haunt thought's wildernesses.
 He will watch from dawn to gloom
 The lake-reflected sun illumine
 The yellow bees i' the ivy-bloom
 Nor heed, nor see, what things they be;
 But from these create he can
 Forms more real than living man
 Nurslings of immortality! (1, ll. 737–49)

Rhyme for Shelley enacts transparency, as we see the semantics of words *through* the almost-converging sounds of the phonemes they pair. It is a sonics of the same, and in the passage of the same sound through semantically differing words these reflective acts bring different categories into the same sound world with the effect of making reflection generative. Consider the work of the liquid 'l' consonant here initiated by the corporeal 'lips', and its passage as it devolves from word to word. Lips, slept, love, mortal, blisses, aerial, wildernesses, will, gloom, lake-reflected, illumine, real, living, nurslings, immortality. The 'l' passes through mortal to immortality, on its way mediating the corporeal and aerial, the sensory and the ideational. Or take the sequence 'dreaming', 'breathing', which moves right across the lyric down to 'bees', 'be' and 'cre—ate'. Like the erotic, love-adept spirit, the bees are a mark of fertility and creation. But their 'yellow', like all colour, is endowed by what their bodies can reflect and cannot reflect. Their corporeality is a creation of light. But they are no less 'real'. Shelley's 'forms' are 'more real' than living man not because they are 'ideal' or platonic entities—for this would make them an idealist parallel to a virtual world—but because the reflective imagination calls out in reality that which was unknown before, experienced more intensely ('more real') than anything known before.

* * *

To end I turn now from poets whose imaginations were deeply stirred by the new optical culture of phantasmagoria and virtual image, however questioningly they used its resources, to poets who were at best circumspect and at worst vehemently critical of it, Charlotte Smith and Blake.

Charlotte Smith's bravura incorporation of the spectrum into the sunset that begins her long unfinished poem of 1807, *Beachy Head*, implicitly responds to Newton's technical intervention into light through the third term of the lens. In the following passage her sunset offers a sky in which virtually all the colours of the spectrum are present, hues of purple, blazing crimson, transparent gold (yellow), often transmuted to jewels—'ruby tints' and 'sapphire gleams'. The sea and the sky become screens for one another, incorporating the dioramic effects of interactive colour. This is a diorama that happens luridly, though beautifully, in the sky.

the lovely light

Of the fair star, that as the day declines,
 Attendant on her queen, the crescent moon,
 Bathes her bright tresses in the eastern wave.
 For now the sun is verging to the sea,
 And as he westward sinks, the floating clouds
 Suspended, move upon the evening gale,
 And gathering round his orb, as if to shade
 The insufferable brightness, they resign
 Their gauzy whiteness; and more warm'd, assume
 All hues of purple. There, transparent gold
 Mingles with ruby tints, and sapphire gleams,
 And colours, such as Nature through her works
 Shews only in the ethereal canopy.
 Thither aspiring Fancy fondly soars,
 Wandering sublime thro' visionary vales,
 Where bright pavilions rise, and trophies, fanned
 By airs celestial; and adorn'd with wreaths
 Of flowers that bloom amid elysian bowers.
 Now bright, and brighter still the colours glow,
 Till half the lustrous orb within the flood
 Seems to retire: the flood reflecting still
 Its splendour, and in mimic glory drest;
 Till the last ray shot upward, fires the clouds
 With blazing crimson; then in paler light,
 Long lines of tenderer radiance, lingering yield
 To partial darkness; and on the opposing side
 The early moon distinctly rising, throws
 Her pearly brilliance on the trembling tide.⁴¹

⁴¹ *The Poems of Charlotte Smith*, Stuart Curran (ed.) (Oxford, 1993), ll. 72–100.

Brightness, hues, tints, glow, bright, brighter: Smith exacts from conventional descriptive diction a kind of arpeggio of changing colour. This sumptuous prospect of transmitted light follows on without a break, in the same paragraph, from her condemnation of the depredations of commodity culture, the slavery of pearl diving and the conspicuous consumption of the rich beauty's real, material jewels. The movement from the depth of the sea to the height of the sky might suggest the move to a transcendent world, a democracy of light where all are free to imagine the aesthetic power of the spectrum, and where jewels of light counteract material jewels. Not so. Smith has appropriated the great poetic tradition of sunset and the oncoming night, so potent in Enlightenment poetry, to suggest the sunset of her culture. For all the glory of transmitted light, it is a move to *imagined* power relations. The phantasmagoria in Marx's and Benjamin's sense as ideology penetrate even to the vision of a night sky and consolidate the culture of commodity Smith has been describing. The prospect poem is transposed to the sky, where the ownership of the eye is paramount, and the pagan Elysium, war tents (pavilions), war trophies, and the tribute of flowers can be freely imagined and possessed in Fancy/fantasy. Fancy, indeed, projects meaning onto the coloured scene, constructing a scene of violence enhanced by the ambiguities of language—'Till the last ray shot upward fires the clouds | With blazing crimson . . .' The incendiary violence of gunshot that sets fire to its surroundings converges with the language of light.

The splitting of the spectrum perturbs and deracinates the whole poem. The run-on lines and the constant present tense, with adjectival participles—verging, gathering, aspiring, wandering, reflecting, blazing—break down the process of sunset into a series of 'nows', a syntax of splitting, a linguistic atomisation that allows no past or future to the experience of sunset and remains with the surface. The syntactic splitting of process into present tense 'nows' that continues in these passages becomes an account, a structuring, of history as splitting, fragmenting.

In Smith's poem the tyranny of light (or enlightenment rationalism) creates endemic splitting. The poem begins with a 'vast concussion' (l. 6) that broke apart the 'solid hills' (l. 7) of rock and stone, the geological rending of the link between Britain and France. It continues with these very same decimated, barren stones of the topsoil worked both by the rural poor, and by the urban labourer, stone breaking to create roads for the rich: the poor man's 'pick-axe smooths | The road before his chariot', while against the same labourer 'the frozen earth closes her marble breast' (l. 252–3; 258). The chiaroscuro of moonlight and shadow, the 'glimmer'

of light, that we see in the quoted passage, displaces the violence of colour and sometimes holds out the promise of a gentler world. But the visual culture of the lens is neither a source nor an analogue for image-making. Smith rejects it.

I will end with Blake, the poet who violently resisted the artificial fabrication of the seen—‘The Eternal Body of Man is the Imagination’, he wrote in his late Laocoon engraving.⁴² While his contemporaries willingly incorporated the resources of optical culture into their poetry and poetics, even when they were in doubt about it, Blake would have none of this. He repudiated the optical language of the phantasmagoria, the language of light, transparency, reflection and refraction, everything that related to the virtual image. His prophetic beings are wholly unvirtual. In *Jerusalem* (1818–20) he execrated the distorted and ‘reversed reflection’.⁴³ The rainbow, sign of the spectrum, does not have a prominent place in his writings or engravings—it was too close to the Newtonian science that he saw as damaging the imagination.⁴⁴ I believe that one of the meanings of his famous ‘Tiger’ poem is a protest against the movement of the image from the imagination to the corporeal eye, and into virtuality. Amazingly, Blake mounts an attack on this new form of the lens-made image without conceding at all to the language it had so powerfully generated for other poets.

Only questions, twelve of them, can mediate the impossibilities of Blake’s ‘The Tiger’.

Tiger, Tiger, burning bright,
In the forests of the night,
What immortal hand or eye
Could frame thy fearful symmetry?

In what distant deeps or skies
Burnt the fire of thine eyes?
On what wings dare he aspire?
What the hand, dare seize the fire?

And what shoulder, and what art
Could twist the sinews of thy heart?

⁴² Geoffrey Keynes, *William Blake’s Laocoon. A Last Testament* (London, 1976), p. 403.

⁴³ *The Poems of William Blake*, W. H. Stevenson and David V. Erdman (eds.) (London, 1971), Chap. 1, Plate 17, l. 42.

⁴⁴ Otto, *Multiplying Worlds*, offers a very different reading of *Jerusalem* and of Blake’s aesthetics than mine. In his highly impressive reading of the poem (pp. 195–214) he assumes that the poetics of what Schiller called ‘semblance’ and the technologically created virtual image can be elided. I make a distinction between them, and believe that Blake feared just this elision.

And when thy heart began to beat,
 What dread hand? And what dread feet?

What the hammer? What the chain?
 In what furnace was thy brain?
 What the anvil? What dread grasp?
 Dare its deadly terrors clasp?

When the stars threw down their spears
 And water'd heaven with their tears,
 Did he smile his work to see?
 Did he who made the Lamb make thee?

Tiger Tiger burning bright
 In the forests of the night,
 What immortal hand or eye,
 Dare frame thy fearful symmetry?⁴⁵

The 'burning bright' fire of the tiger's eyes, searing the image onto the retina, is an effect of light as the eyes act as a lens. Erasmus Darwin described in a note to his cosmic poem, *The Botanic Garden* (a poem packed with notes on contemporary optics and astronomy, Priestley and Herschel in particular), how the luminous eyes of a horse in a dark cavern appeared like 'two balls of phosperous' as the light was reflected back from 'the surface of the vitreous humour'.⁴⁶ In one of his drafts Blake wrote of the sheer optical intensity of this light as 'the cruel fire of thine eyes'. The tiger emerges from the cosmic universe, the Herschellian 'deeps' of endless space and 'distant' 'skies'. Sidereal space was sometimes described as a 'forest' on analogy with the appearance of trees behind trees as stars appeared behind stars. In all of his drafts Blake retained the forests as plural. The nights are multiple, there are many tigers, proliferating in many universes, implicitly uncontrollable: 'In what furnace was thy brain?' The furnace produces the volcanic heat that generates the massive explosion of matter to form stars, AND the source of the Tiger's brightness. The stars, projectiles from this upheaval, have resigned their powers: they threw down their spears/spheres and wept to encounter this new 'heaven'. The new heaven, with violent irony, is the dominance of the eye and all that it means. Of course, the tiger is a terrestrial tiger with magically glowing eyes incandescing in a terrestrial forest, but this cosmic architecture is present too. The struggle of the creator with the tiger's 'fearful symmetry' is so violent that it can only be represented by part objects—

⁴⁵ I follow the text of the Longman edition, see above, n. 43.

⁴⁶ Darwin, 'Botanic Garden', p. 262.

hand, eye, wings, hand, shoulder, heart, feet, brain, hand, eye—in a metonymic syntax distributed across struggling entities, as Blake dares to ‘frame’ the conflict of creation itself. My reading here assumes that the creating force is struggling *against and with* ‘fearful symmetry’, and not struggling *to* create it. The ‘immortal eye’ of the creator is in a superhuman Promethean struggle with its creation, and may even be fighting a losing battle. The Tiger’s brightness is truly an image I think in the modern sense. It is generated from the void, generated from light itself. But the Tiger asserts the primacy of the eye. Blake is describing a new cultural phenomenon, the birth of the virtual, lens-made image and its power. The corollary of this is that this new form of image-making, such is its searing power, its imaginative and ideological coercion, calls out the intense struggle of resistance. Blake is affirming that we do struggle with such images—it *is* a matter of life and death. And the virtual image enters the material universe with anvil, hammer, terror.

* * *

In conclusion, I have described a search for, or researches into an image that circumvents technologised simulacra. This search accounts for Coleridge’s haunted speculation about which way round thought and reality were. It was a search that prompted Barbauld to entertain the possibility that thought’s imaging brings the whole material and planetary universe into being, and Wordsworth to question the very nature of the image as an entity inside or outside the mind, at once compounding and destabilising the categories of matter and thought, shadow and substance. It prompted Shelley to imagine a semblance created by thought’s dematerialisation of things, so that they could become ‘more real’, more alive, and paradoxically more material, than what we know as ‘life’ itself. It called forth the energies of Smith and Blake in their condemnation of the virtual image. It called forth a great creative effort. For now I will leave you with Coleridge’s words: ‘Thought and Reality two distinct corresponding Sounds, of which no man can say positively which is the Voice and which the Echo.’

Note. I am grateful to Hilary Fraser and Robert Miles for help and advice in preparing this lecture. I thank John Plunkett and his unrivalled knowledge of screen practice in the nineteenth century for his generosity and help in preparing a loop of images to preface the lecture. Marina Warner and Hermione Lee provided an enthralling start to the evening.