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SINCE THE STUDY of Romanticism is generally divided into European, British and American tracks, transatlantic connections are often obscured, resulting in what Richard Gravil calls 'the existence of a lost continent of literary exchange that our artificially divided academic community has yet to recognize and explore'.¹ This 'lost continent' is now being charted with a host of new critical approaches, including the emerging subfield of 'transatlantic ecologies' that attempts to investigate, in the words of Kevin Hutchings and John Miller, 'the key ways in which Western environmental discourses and associated literary practices were forged in the crucible of transatlantic cultural history during the long nineteenth century'.² A salient example of an ecological link between Romanticisms is the relationship between the British Romantic Samuel Taylor Coleridge and the American Transcendentalist Ralph Waldo Emerson. Emerson's extensive reading of Coleridge and his experiences during his pivotal voyages to England reveal that many of his ideas about nature – particularly his views on natural history – were formed, tested and reshaped in Atlantic transit in the temporal and geographical interstices of transatlantic Romanticism.

Through his reading of Coleridge, Emerson became fascinated with the Hunterian Museum at the Royal College of Surgeons in London (which he visited in both 1833 and 1848) as evidence for a certain kind of natural history that looked for an encompassing and integrated theory of all life. While most scholarship focuses upon Emerson's visit to the Jardin des Plantes in 1833, when he famously declared 'I will be a naturalist', the visits to the Hunterian Museum were far more formative over the arc of Emerson's career.³ This chapter seeks not only to uncover this piece of lost transatlantic context, but also to illuminate the importance of ecological metaphors during this key juncture in transatlantic science. In the decades surrounding the publication of Darwin's *Origin of Species*, unific ideas of nature were becoming harder to sustain as the sciences began to rapidly professionalise and separate into various silos and as static ideas of nature were beginning to break apart under the weight of scientific evidence of extinction and adaptation. In this time of great change, Emerson turned to Coleridge's integrated views of literature, science and religion.

Two Ecological Metaphors

As the first generations of intellectuals who were grappling with a rapid increase in both industrialisation and scientific inquiry, the Romantics were in many ways at a cross-roads between new and old ideas of nature. Two long-standing ecological metaphors are especially revealing in this context: the book of nature and the wonder cabinet. The book of nature, in more or less continuous use since late antiquity, refers to the idea that the divine revealed itself in two scriptures: nature and the Bible.⁴ For much of its history the book of nature was seen as congruent with scripture. However, this began to shift in the eighteenth and nineteenth centuries as discoveries in science (such as evidence of extinctions in the fossil record and records of deep time in geological strata) began to undermine older conceptions of nature such as the 'Great Chain of Being', which imagined life as originating in an unchanging and static hierarchy of forms.⁵

Rather than disappearing entirely, in the Romantic period the book of nature metaphor was refigured as readable by individual writers, artists and natural historians as opposed to ministers or theologians. Studying nature became a form of worship. Literature that championed this new focus on individual experience in nature became an alternative to systematic philosophy, theology and science, while being enriched by incorporating elements of all three. Nature was elevated to a kind of spiritual language, one that could surpass human language or even, perhaps, the Bible itself. A long-standing tradition that the book of nature was not fully readable – due to missing text or evidence or the spiritual imperfection of the reader – heightened excitement that the book might be fully legible in the near future.

Wonder cabinets, like the book of nature metaphor, were another figurative representation of nature that changed a great deal during the eighteenth and nineteenth centuries. Wonder cabinets were often staged in such a way as to encourage viewers to 'read' them to better understand the secret workings of the universe. These collections flourished in Europe from the sixteenth century onwards as a mode of collecting and exhibiting rare natural and man-made objects. Most included the categories of *naturalia* (such as plant and animal specimens, skeletons and fossils), *artificialia* (statues, coins, finely wrought works of art) and *scientifica* (machines or devices such as globes, astrolabes and automatons).⁶ The form and purpose of wonder cabinets shifted from their earliest iterations as private collections of rare objects, which were mainly intended to demonstrate princely power, to their eighteenth- and nineteenth-century manifestations that developed into public museums. However, certain things remained constant: wonder cabinets gathered together objects that complicated traditional categories (such as vegetable and mineral), they elicited both emotional and rational responses (including wonder, curiosity and intellectual inquiry), and their bewildering variety often disguised hidden assumptions about the order of nature.⁷ For example, red coral was a sought-after item in early wonder cabinets, partly because it was exceedingly rare at that time – it came from the Caribbean, so only those who were connected to transatlantic exploration could acquire it – and it was unclear whether coral was an animal, a vegetable, a mineral or a hybrid of those categories. *Naturalia* collections were considered in some way representative of all nature in their traditional divisions of the three kingdoms of animal, vegetable and mineral, even though the individual items were often highly eclectic and distinctive.⁸ For these same reasons, wonder cabinets continually inspired natural scientists because unusual items such as

abnormalities challenged existing theories of nature.⁹ In Anthony Grafton's words, wonder cabinets were 'the alembic in which a new view of nature took shape – one which showed, visually and vividly, that nature and art had histories, and emphasized the radical changes that nature underwent over time'.¹⁰ Wonder cabinets were not merely collections of rare and splendid objects, but modes of publicly displaying – and challenging – existing theories of nature.¹¹

While Romantics such as Coleridge and Emerson inherited the book of nature and wonder cabinets as metaphorical commonplaces, they were newly potent in the changing environment of nineteenth-century science because they presumed a tie between imaginative and rational modes of perceiving nature. Both of these ecological metaphors implied that nature could be 'read' for spiritual and/or scientific lessons, yet such readings were fraught with difficulty: they were fragmentary, required powerful modes of perception, eluded simplistic interpretation, yet alluringly promised unific visions of order in nature. What brought Romantic writers to a museum like the Hunterian was the search for what Emerson called 'the poetic key to Natural Science' – an imaginative reading of the book of nature in its scientific manifestation of the natural history cabinet.¹²

The Hunterian Museum

Comprising thousands of plant, animal and human specimens, the Hunterian could be described as a wonder cabinet or a cabinet of curiosities because the objects in the collection were at once highly unusual and yet in some way considered representative of a presumed order in nature.¹³ Coleridge referred to the Hunterian Museum as a physical embodiment of the book of nature, a 'magnificent museum' where 'the genius of one great man has raised and dedicated to the wisdom and unity of the Creator' nothing less than 'profound ideas concerning Life, which dawn upon us, indeed, through his written works, but which he has here presented to us in a more perfect language than that of words – the language of God himself, as uttered by nature'.¹⁴ These opening lines of 'Hints towards the Formation of a More Comprehensive Theory of Life' illuminate that Coleridge worked within the book of nature motif by seeking evidence of the spiritual in the physical world. While this conclusion might appear to be a typical response from the perspective of natural theology, as we will see below the Hunterian challenged conventional thinking in many regards.

Coleridge was a vitally important intellectual source for Emerson; his vast reading and knowledge of ancient and contemporary sources of literature, theology and philosophy were foundational for American Transcendentalism.¹⁵ However, Emerson's interest in Coleridgean approaches to science has been overlooked, particularly the way in which Coleridge's numerous references to John Hunter and the Hunterian Museum demonstrated daring new developments in science. Coleridge and Emerson were both interested in certain unique aspects of the Hunterian that set it apart from other collections: (1) Hunter's organisation focused on dynamic – rather than static – processes as seen across categories, pointing toward a theory that might undergird all life; (2) the collection was the site of annual lectures, some of which were part of 'the Hunterian Debate', marking it as a site of publicly debated and performative science; (3) Hunter's intended organising principles for the collection were partially evident but

full of gaps, requiring a leap of the imagination and inviting competing 'readings' of the collection. The Hunterian combined new and cutting-edge discoveries with older traditions of the book of nature and the wonder cabinet; by visiting the museum, Emerson felt he was observing an exciting juncture of old and brand-new perspectives on nature.

The museum was founded by John Hunter (1728–93), a surgeon and an anatomist who amassed a significant personal collection of animal, plant and medical specimens, according to one account consisting of about 5,786 preparations in spirits, 1,086 in a dried state, and of other kinds about 10,000, in all making about 17,300 specimens.¹⁶ He was elected a Fellow of the Royal Society in 1768 and in 1783 he began to arrange his collection into a teaching museum located in Leicester Square in London. As it became more well-known, Hunter received rare specimens such as a kangaroo brought back by Sir Joseph Banks from James Cook's voyage of 1768–71.¹⁷ Six years after his death, the collection was purchased by the government in 1799 and given to what would later become the Royal College of Surgeons.

The Hunterian was unusual because the arrangement of specimens emphasised the relationship between structure and function in all kinds of living creatures.¹⁸ Much of the collection consisted of two types of specimen, those illustrating normal and abnormal anatomy, both human and animal. These items were organised by types of dynamic process: specimens of normal anatomy were grouped by categories such as digestion, sense perception and locomotion and those of abnormal anatomy by types of physiological action (such as inflammation and adhesion) and morbid processes arranged by location in the body.¹⁹ Hunter's views blended new and old ideas of nature: on the one hand, he followed a pattern of displaying specimens hierarchically from simpler to more complex which seemed to embrace the old-fashioned metaphysic of the 'Great Chain of Being'. Yet at the same time, Hunter undermined convention by looking for dynamic processes at work throughout all of the natural world and by intermingling living and extinct specimens.²⁰ He breached the divisions of Linnaean taxonomy spectacularly in his famous experiment in which he successfully transplanted a human tooth into a cock's comb, which suggested interconnection between the organic and the inorganic as well as human and animal in provocative ways.²¹ Stephen Asma relates that

Hunter's intoxication with functional systems led him to see through all traditional morphology-based classification systems like so many transparent tissues of deception. Like Cuvier, he recognized the basic physiological functions of digestion, circulation, reproduction, and so on, but with syncretic vision; he could not see any importance to the surface divisions of vertebrates, invertebrates, articulates, and so on . . . [the Hunterian] forces us to see and think about nature in a different way. Juxtaposing plant tendrils and sea horse tails gets us to think about new categories of function that we might term life's strategies . . . Hunter's collection shows us a nature that is an active, productive force (*natura naturans*) rather than a passive product (*natura naturata*).²²

This last idea reveals why the Hunterian was more compelling for Coleridge and Emerson than other famous natural history museums: they both used the term *natura naturans* to uphold a view of nature as dynamic, holistic and active rather

A pencil and watercolour view of the Hunterian Museum, c. 1842, by Thomas Hosmer Shepherd (1793–1864), printed with permission of the Royal College of Surgeons.

than passive.²³ These exhibits daringly implied that similar structures and processes could be observed across the traditional categories of plant, animal and human. Even more dramatically, Coleridge believed (as did many of his contemporaries, including William Clift and Richard Owen) that the collection illustrated an overarching theory of life. The Hunterian was described as being 'unique in England, for it was no mere peepshow of curiosities and monstrosities as were so many collections at that time, but it displayed in a manner easy to assimilate, the great story of life in all its forms. It was, in truth, John Hunter's great unwritten book . . .'²⁴ The Hunterian was the physical embodiment of the two ecological metaphors of the book of nature and the wonder cabinet.

Coleridge and Emerson were also attracted to the Hunterian because it was the site of ongoing, performative science. When the government gave the collection to the Royal College of Surgeons, it was stipulated that the collection would be open to the public and that twenty-four lectures would be given there each year.²⁵ This lecture series became the locus of the Hunterian debate, which centred upon opposing interpretations of the Hunterian taken up by rival surgeons Sir William Lawrence and John Abernethy. The former argued for a materialist interpretation of the collection while Abernethy argued for an idealist or vitalist view, positing that life was a principle existing beyond the matter it animates. Coleridge sided with Abernethy, writing the work entitled 'Hints towards the Formation of a More Comprehensive Theory of Life' to defend Abernethy's vitalist interpretation.²⁶

The excitement surrounding the Hunterian was heightened because the intended principles behind its unusual organisation of exhibits were fragmentary and incomplete. This was due to some extraordinary circumstances regarding John Hunter's manuscripts. William Clift, the guardian of John Hunter's manuscripts for seven years, began to copy them out, fearing they might be lost or that a future curator might alter the organisation of the collection.²⁷ His concern was not unwarranted: in 1799, Sir Everard Home, a Hunterian Trustee and Hunter's brother-in-law, transferred the manuscripts to his own house, purportedly to compile a catalogue of the specimens, but it was never completed. During a visit to Home's residence, Clift retrieved remnants of one of Hunter's manuscripts on 'The Venereal Disease' from the water-closet where it was being used as toilet paper. Even more shockingly, in 1823 Home told Clift that the fire brigade had responded to a fire caused by his burning of Hunter's manuscripts in the fireplace. Home claimed that it was Hunter's wishes for the manuscripts to be burned even though there was not a complete catalogue. Eventually it was uncovered that this egregious negligence was an attempt to obscure evidence of his plagiarism of Hunter's manuscripts.²⁸ This disastrous stewardship made the collection even more important in an unexpected way: while the Hunterian Museum clearly appeared to have an intricate, coherent theory behind it, the details of its organisation were lost in the destroyed manuscripts.²⁹ The Hunterian presented a supposedly unified and coherent theory of life and yet it was not fully readable; it promised order but eluded a fixed interpretation. These factors heightened the mystery and excitement surrounding the collection, which seemed on the cusp of revealing a grand unifying theory of life. This led Emerson to view the Hunterian as holding 'the poetic key to Natural Science',³⁰ yet that key was obscure and required an imaginative leap to discern. This interpretive space left room for a literary approach to science that both Coleridge and Emerson craved. The apparent

gaps and the lacunae at the Hunterian, far from preventing a holistic picture of all of nature, invited an imaginative completion of its hieroglyphic puzzle. Emerson's lectures on natural history were forged in this transatlantic context.

Emerson's Early Lectures on Natural History

Emerson's two visits to the Hunterian in 1833 and 1848 bookend major phases of his career as a public lecturer. A close look at the lectures inspired by his London trips (including 'The Uses of Natural History' and 'The Naturalist' for the early lectures and 'Intellect and Natural Science' and 'Poetry and Imagination' for later lectures) reveal that Coleridge, the book of nature and the Hunterian Museum were constant influences over Emerson's entire career. 'The Uses of Natural History', one of the first lectures written upon Emerson's return from England, abounds with direct references to natural history cabinets as physical manifestations of the book of nature; he also refers directly to John Hunter in that lecture.³¹ The process of reading nature in this context was emotional as well as rational. Emerson writes, 'The earth is a museum, and the five senses a philosophical apparatus of such perfection, that the pleasure we obtain from the aids with which we arm them, is trifling, compared with their natural information.'³² Once trained to see underlying principles at work in the natural history cabinet, the whole world outside of the museum is also open to such 'readings'. For Emerson these readings were not just scientific and rational; they also involved intuitive and poetic perceptions of the spiritual lessons embodied in the natural world: he writes, 'Where is it these fair creatures (in whom an order and series is so distinctly discernible,) find their link, their cement, their keystone, but in the Mind of Man?'³³ The Hunterian aided in making this 'order and series' discernible in the form of its exhibits. Emerson continues this connection between the poetic and the scientific by quoting directly from Coleridge's poem 'The Destiny of Nations: A Vision' (1817): 'In the language of the poet, "For all that meets the bodily sense I deem / Symbolical, one mighty alphabet / For infant minds."³⁴

This yoking of the book of nature and the wonder cabinet as modes of reading nature enabled Emerson to forge a unific view of nature at time when those views were becoming increasingly difficult to sustain. In the final paragraph of 'The Uses of Natural History', Emerson reveals that

Nature is a language . . . not a language taken to pieces and dead in the dictionary, but the language put together into a most significant and universal sense. I wish to learn this language – not that I may know a new grammar but that I may read the great book which is written in that tongue. A man should feel that the time is not lost and the efforts not misspent that are devoted to the elucidation of these laws; for herein is writ by the Creator his own history.³⁵

Thus the ultimate purpose of natural history in Emerson's view is spiritual, not merely scientific for its own sake.³⁶ As Michael Branch points out, 'although nature is a source of divinity, the scientific method can obstruct as well as facilitate spiritual illumination. Despite his avowed desire to "be a naturalist," Emerson ultimately became a critic of science rather than a scientist, a philosopher of nature rather than a naturalist.'³⁷ Natural history was not just a scientific pursuit for Emerson, but a practice

of self-culture in which the mind was trained to look outward and inward at once. While pursuing the 'grammar' of nature alone would be the actual practice of classifying specimens, Emerson was more interested in cultivating the ability to 'read the great book which is written in that tongue'. In this light, Emerson's famous dictum in 'Uses of Natural History' – 'I am moved by strange sympathies. I say I will listen to this invitation. I will be a naturalist' – takes on a different cast.³⁸ It is not really a call to become a practitioner of the detailed and highly specific work of a naturalist, but rather to be open to the wonder of the wonder cabinet, to the 'strange sympathies' and intuitive openness to its 'invitation', namely the invitation to see the organising principles behind the cabinet where he might perceive 'the upheaving principle of life'.³⁹ Although this lecture refers to his experiences at the Jardin des Plantes, Emerson later in his life stated, 'All multiplicity rushes to be resolved into unity . . . as if the whole animal world were only a Hunterian museum to exhibit the genesis of mankind.'⁴⁰ Clearly the Hunterian – more than any other cabinet he visited – was the place where a coherent view of 'the upheaving principle of life' was most evident.

Emerson claimed in *Nature*: 'All science has one aim, namely, to find a theory of nature.'⁴¹ He turned his gaze across the Atlantic to find the ballast for that theory. In another early lecture, 'The Naturalist', Emerson turns to Coleridge as a trusted source for exciting developments in Romantic science related to the Hunterian debate. Although *Aids to Reflection* was the more widely known of Coleridge's works in America, *The Friend* was the single most formative of his works for Emerson.⁴² He took especially copious notes on the third volume, which included his 'Essays on the Principles of Method', from which Emerson copies whole phrases verbatim. Emerson would have been especially interested in a long footnote in which Coleridge claimed that John Hunter was 'the profoundest, we had almost said the only, physiological philosopher of the latter half of the preceding century' because he identified the 'idea of a life or vital principle' that is '*independent of the organization*'.⁴³ Emerson adopts this language verbatim in 'The Naturalist': 'Tis said that the idea which always haunted John Hunter, that Life was independent of organization, protecting and continually recreating the parts and wonderfully varying its means of action, he never succeeded in expressing but in his Museum.'⁴⁴ Emerson was primed to see Hunter's central arguments about 'Life' through his reading in Coleridge.

In Emerson's eyes Coleridge was not only a reliable source for recent developments in Romantic science, he was also a model for potentially combining the pursuit of science and literature. In these same pages of *The Friend* Coleridge writes,

If in SHAKSPEARE we find nature idealized into poetry, through the creative power of a profound yet observant mediation, so through the meditative observation of a DAVY, a WOOLLASTON, or a HATCHETT . . . we find poetry, as it were, substantiated and realized in nature . . .⁴⁵

The clever symmetry of 'nature idealized into poetry' and poetry 'realized in nature' would have been very appealing to Emerson as he sought a unified view of nature.⁴⁶ Coleridge saw Humphry Davy (1778–1828) and Charles Hatchett (1765–1847) as movers and shakers in Romantic science; in his words, they were 'exhibiting a luminous instance of what we mean by the discovery of a *central phaenomenon*'.⁴⁷ Coleridge asks dramatically whether such discoveries might be generating a new kind of science,

a 'substitution of what may perhaps be called *experimental Dynamic*, for the mechanical notions or the less injurious traditional empiricism, of his predecessors?'⁴⁸ Like many American Transcendentalists, Emerson combed European Romantic sources for dynamic and idealist alternatives to mechanism.⁴⁹ In 'The Naturalist', Emerson also refers to Davy and Hatchett, as well as Home (the latter two were specifically connected to the Hunterian), revealing his debt to Coleridge in informing him about developments in Romantic science and the transatlantic conversation about mechanism and idealism that was a core theme of American Transcendentalism.

These engagements with Coleridge and the Hunterian led Emerson to feel after his 1833–4 trip to England that science might be on the cusp of finding a 'Theory of Animated Nature' that would dovetail with a comprehensive literary, philosophical and moral framework. In the closing paragraph of 'The Naturalist' he writes,

We are born in an age which to its immense inheritance of natural knowledge has added great discoveries of its own. We should not be citizens of our own time, not faithful to our trust, if we neglected to avail ourselves of their light . . . No truth can be more self evident than that the highest state of man, physical, intellectual, and moral, can only coexist with a perfect Theory of Animated Nature.⁵⁰

Coleridge and Emerson had faith that such a theory was possible, yet the particulars seemed to elude their grasp. Fortunately the practice of imaginative science – and the metaphors of the book of nature and wonder cabinets – allowed such ambiguity.

A visit to the Hunterian evoked a sensation of interconnection, order and dynamic progress in nature but in actual fact delivered only 'hints' and 'intimations'. Yet this incompleteness was not an obstacle; it was an opportunity to complete a reading of nature imaginatively. After all, gaps and ambiguity had long been associated with the book of nature and wonder cabinets. Emerson embraces the lacunae of the Hunterian: 'To this end of furnishing us with hints, intimations of the inward Law of Nature, a cabinet is useful. It would seem as if there were better means of expressing these thoughts than words.'⁵¹ Hunter's destroyed manuscripts made a full 'reading' of the collection impossible, yet Emerson suggests that an intuitive experience at the museum might even be better than words. That would allow for an imaginative response, combining both emotive and rational capacities:

So no intelligent person can come into a well arranged cabinet of natural productions without being excited to unusual reveries, without being conscious by instinctive perception of relations which he can only feel without being able to comprehend or define.⁵²

Following a long-standing conceit that the book of nature is not perfectly readable, Emerson claims that while nature's 'open secret is not translatable into words' there soon could be some equivalent of the Rosetta Stone to make all of nature legible. He claims, 'Natural History seeks directly to provide this key or dictionary by observing and recording the properties of every individual and determining its place in the Universe by its properties.'⁵³ Despite Emerson's optimism about future discoveries, he still uses tentative language: natural history 'seeks' to provide the key, but there is ambiguity and obscurity in that word. As the nineteenth century progresses and the

'key' is not discovered, Emerson increasingly turns towards the literary and imaginative modes of reading the book of nature, a motif that becomes even more prominent in the later lectures.

Emerson's Later Lectures

The second visit to the Hunterian was equally, if not more, inspirational for Emerson's search for a unific view of nature. Between the 1833 and 1848 visits, the Hunterian was massively renovated and expanded, giving Emerson the impression that the collection continued to be at the very forefront of scientific inquiry. The new curator was Richard Owen (1804–92), known as 'the "British Cuvier"' and considered the most important museum keeper in Victorian Britain.⁵⁴ He added specimens from geology and palaeontology, acquiring both living and extinct animal skeletons for display.⁵⁵ Owen guided Emerson personally through the renovated collection; Emerson notes in his journal that Owen was 'communicating a great deal of valuable information of which I deeply regret that I omitted to make immediate record'. Owen also 'gave a sad history of the misuse & voluntary destruction of Hunter's MSS by Sir Everard Home'.⁵⁶ These remarks reveal that Emerson was directly acquainted with the overarching organisational scheme of the museum as well as the missing pieces of the puzzle due to the destroyed manuscripts. During the same trip Emerson heard public lectures by Owen, Michael Faraday and Charles Lyell, and Owen took him to Turner's studio. These exhilarating experiences no doubt enriched the essays on natural history that were part of the *Mind and Manners of the Nineteenth Century* series that Emerson delivered at the Literary and Scientific Institution in London. It was a pivotal trip: as David Robinson notes, 'We can trace to the journey the rebirth of his conviction that science might offer a usable interpretive paradigm for the ultimate translation of nature's metaphysical code.'⁵⁷

The Hunterian would play a central role in that 'translation'. The collection informed Emerson's search for what he called the 'Natural History of the Intellect' that combined the study of natural facts with a study of mind. Inspired by the scientific lectures given by Owen and Faraday that he attended in London, Emerson asks 'could not a similar enumeration be made of the laws and powers of the Intellect . . . Why not? These powers and laws are also facts in a Natural History.'⁵⁸ The central premise or 'first fact in the Natural History of the Intellect' is the presumption of 'a profound identity with all the parts of Nature. All seem to come of one stock. What is the interest of tropes and symbols to men? I think it is that; unexpected relationship. Each remote part corresponds to each other, can represent the other; because all spring from one root.'⁵⁹ Here 'tropes and symbols' can yoke science and literature; as science becomes more and more specialised, Emerson steps back to a broader, fuzzier view based on figurative language. He writes, 'From whatever side we look at nature, we seem to be exploring the figure of a disguised man. We still see the old law gleaming through as the sense of a poem in a language imperfectly understood.'⁶⁰ The Hunterian was useful in this respect: it demonstrated 'unexpected relationship' throughout its exhibits, such as one in which a sea horse's tail and a plant's tendrils were grouped together as demonstrating 'Methods of Support with Motion'.⁶¹ Such exhibits seemingly illustrated Emerson's premise that 'mechanical laws might as easily be shown pervading the kingdom of mind, as the vegetative'.⁶²

In the later lectures, Emerson homes in even more closely on literary ideas derived from Coleridge – including symbol, genius, imagination, and the role of the poet-prophet – as connective analogies between nature, spirit and mind.⁶³ The imprint of Coleridge is especially unmistakable in 'Intellect and Natural Science', where the poet is upheld as a prophetic figure able to read the book of nature. The literary, spiritual and scientific merge when viewing 'any cabinet where is some representation of all the kingdoms of nature', where observers perceive 'occult sympathies, and feel as if looking at our own bone and flesh through colouring and distorting glasses'.⁶⁴ Then he moves from a discussion of natural history to astronomy, philosophy, art and architecture, and he does so by using Coleridge's concepts of genius, imagination and symbol as the connecting ties. The poet (not the natural historian) is invoked as the figure who 'beholds the central identity' and can 'detect essential resemblances in things never before named together. The poet can distribute things after true classes'.⁶⁵ Emerson here turns to Coleridge's definition of imagination in the *Biographia Literaria* as a quasi-spiritual power: 'The act of Imagination is, the sharing of the real circulations of the Universe; and the value of a symbol or trope, on which, as we know, religions and philosophies are built, is, the evidence it affords that the thought was just.'⁶⁶ Thus as David Robinson observes, 'Emerson's entry point into the recognition of the encompassing laws of natural unity is through the working of figurative language, in particular the connective qualities of analogy, metaphor, sign and symbol,' effectively transforming the conclusions of hard science into "analogies" rather than more limited and concrete statements of fact'.⁶⁷ This use of analogy and figurative language – especially in the hands of Coleridge, who broadly applied 'metaphor, sign and symbol' not just to literature but to metaphysics, philosophy and the natural sciences – helped forge a unific view of nature and mind, a view that was getting harder to hold at the midpoint of the nineteenth century. It also demonstrates how Emerson's views of nature were forged and continually reshaped in transatlantic context.

Emerson's commitment to this kind of literary and imaginative science never abates, as evidenced by the appropriately named lecture 'Poetry and Imagination' delivered first in the 1850s and then as part of his 1870 lecture series on 'Natural History of the Intellect' at Harvard.⁶⁸ In that lecture he claims that 'Science was false by being unpoetical' and 'Science does not know its debt to imagination'.⁶⁹ As if on cue, Emerson invokes Coleridge and the Hunterian Museum again to explain the connection between literature and science, and between nature, mind and spirit. In 'Poetry and Imagination', Emerson says that 'Nature is not final . . . creation is on wheels, in transit, always passing into something else, streaming into something higher'.⁷⁰ This highly specific and evocative language draws directly from Coleridge's description of method from 'Essays on the Principles of Method' in *The Friend*. In these essays, Coleridge defined method according to the ancient Greek derivation of the term as '*a way, or path of Transit*'.⁷¹ Method could work across disciplines, beginning with the material facts of natural history and experimental science and working upwards through literature, philosophy and religion: 'commencing with the most familiar truths, with facts of hourly experience, and gradually winning its way to positions the most comprehensive and sublime'.⁷² As I have argued elsewhere, Emerson was profoundly attracted to Coleridge's method as a way to potentially knit together a study of the mind's workings and the natural world.⁷³

In the 1850s, evidence of dynamism and adaptation in nature was mounting, culminating in the 1859 publication of Darwin's *Origin of Species*. Emerson again reaches across the Atlantic to reshape his ideas of nature. In 'Poetry and Imagination' he refers to the founder of the Hunterian Museum as holding pivotal evidence: 'The electric word pronounced by John Hunter a hundred years ago, – *arrested and progressive development*, – indicating the way upward from the invisible protoplasm to the highest organisms, – gave the poetic key to Natural Science.' Yet rather than destabilising unific views of nature, this concept was depicted as 'a hint whose power is not yet exhausted, showing unity and perfect order in physics'.⁷⁴ Hunter and the Hunterian Museum enabled Emerson to bridge old and new ideas of nature at once, embracing change in the natural world without abandoning order and progress. While the phrase '*arrested and progressive development*' did not actually come from Hunter, as Walls has noted, it is an interesting mistake, one that suggests that Emerson saw the idea as 'a synthesis of both the most widely accepted and the most controversial ideas in contemporary science'.⁷⁵ For Emerson the Hunterian seemed to marry new and old, order and disorder, hierarchy and change. In *Nature* he wrote, 'In a cabinet of natural history, we become sensible of a certain occult recognition and sympathy in regard to the most unwieldly and eccentric forms of beast, fish, and insect.'⁷⁶ The Hunterian had a particularly prodigious collection of abnormal specimens which resisted easy explanation. Yet even those 'unwieldly and eccentric forms' did not undermine a sense of order, but rather suggested that nature was, in Asma's words, 'an inspired, experimental, but messy artist' continually generating new forms of life.⁷⁷ Thus the Hunterian accounted for the kind of dynamic change in a way that did not erase the unific ideas of nature that Emerson craved, namely the sense that 'All multiplicity rushes to be resolved into unity'. He continues, 'Anatomy, osteology, exhibit arrested or progressive ascent in each kind; the lower pointing to the higher forms, the higher to the highest, from the fluid in an elastic sack, from radiate, mollusk, articulate, vertebrate, – up to man . . .'⁷⁸ This description of charting lower to higher forms beginning with 'the fluid in an elastic sack' is directly drawn from an exhibit at the Hunterian. Emerson concludes this passage with the remark 'as if the whole animal world were only a Hunterian museum to exhibit the genesis of mankind',⁷⁹ a remarkably bold conclusion softened only by his use of simile.

In short, for Emerson the Hunterian Museum – more than any other natural history cabinet – embodied 'the poetic key to Natural Science'. While Emerson was inspired by many natural history cabinets, it was the Hunterian's unusual organisational principles that made it the most significant of all, especially because of its connection with Coleridge's theories of poetry and science. As natural history was rapidly breaking apart into defined subspecialties, and Darwin's work began to radically destabilise old ideas of nature, Emerson looked across the Atlantic for plausible ways to still envision nature holistically and dynamically even as developments in science threatened to break apart that unity. The Hunterian gallery brought together two very potent symbols: the book of nature and the wonder cabinet, venerable ancient metaphors that were also flexible enough to accommodate some new discoveries. The poet could engage with natural objects 'like words of a sentence; and if their true order is found, the poet can read their divine significance orderly as in a Bible'.⁸⁰ Emerson's transatlantic voyages and reading helped him to pursue a lifelong investigation of the greatest symbol of the nineteenth century: nature.

Notes

1. Richard Gravil, *Romantic Dialogues: Anglo-American Continuities, 1776–1862* (New York: St. Martin's Press, 2000), p. xix.
2. Kevin Hutchings and John Miller, 'Introduction', in *Transatlantic Literary Ecologies* (Farnham and Burlington, VT: Ashgate Publishing, 2016), p. xx.
3. Emerson's visit to the Jardin des Plantes has been discussed at length by Lee Rust Brown, *The Emerson Museum: Practical Romanticism and the Pursuit of the Whole* (Cambridge, MA: Harvard University Press, 1997); Laura Dassow Walls, *Emerson's Life in Science: The Culture of Truth* (Ithaca: Cornell University Press, 2003); and Robert Richardson, *Emerson: The Mind on Fire* (Berkeley: University of California Press, 1995).
4. For more on the history of the book of nature see Ernst R. Curtius, *European Literature and the Latin Middle Ages* (New York: Pantheon Books, 1953), pp. 319–26, and Klaas van Berkel and Arjo Vanderjagt (eds), *The Book of Nature in Early Modern and Modern History* (Leuven, Paris and Dudley, MA: Peeters, 2006).
5. See Arthur Lovejoy, *The Great Chain of Being: A Study of the History of an Idea* (Cambridge, MA: Harvard University Press, 1936).
6. Horst Bredekamp, *The Lure of Antiquity and the Cult of the Machine: The Kunstkammer and the Evolution of Nature, Art and Technology* (Princeton: Markus Wiener Publishers, 1995), pp. 34, 48.
7. Bredekamp, *The Lure of Antiquity*, p. 31.
8. Bredekamp, *The Lure of Antiquity*, p. 29.
9. Bredekamp, *The Lure of Antiquity*, p. 37.
10. Anthony T. Grafton, 'Introduction', in Bredekamp, *The Lure of Antiquity*, p. xii.
11. For example, the convention of exhibiting man-made and nature-made wonders together contributed to mechanistic views of the universe during the Enlightenment.
12. Ralph Waldo Emerson, 'Poetry and Imagination', in *The Collected Works of Ralph Waldo Emerson*, ed. Robert E. Spiller et al., 10 vols (Cambridge, MA: Harvard University Press, 1971–2013), vol. 8, p. 3. Michael P. Branch claims that Emerson was the first to secularise the 'book of nature', but the Romantics began this a generation earlier. See 'Paths to Nature: Emerson's Early Natural History Lectures', in Barry Tharaud (ed.), *Emerson for the Twenty-First Century: Global Perspectives on an American Icon* (Newark: University of Delaware Press, 2010), pp. 219–42, p. 230.
13. Lorraine Daston and Katherine Park, *Wonders and the Order of Nature, 1150–1750* (New York: Zone Books, 1998), p. 272.
14. Samuel Taylor Coleridge, 'Hints towards the Formation of a More Comprehensive Theory of Life', in *Shorter Works and Fragments*, ed. H. J. Jackson and J. R. de J. Jackson, 2 vols (vol. 11 of *The Collected Works of Samuel Taylor Coleridge*) (London and Princeton: Princeton University Press, 1995), vol. 1, pp. 485–6.
15. See Samantha C. Harvey, *Transatlantic Transcendentalism: Coleridge, Emerson, and Nature* (Edinburgh: Edinburgh University Press, 2013).
16. Jessie Dobson, *William Clift* (London: William Heinemann Medical Books Ltd, 1954), p. 18.
17. The collection features another celebrated animal specimen: in 2015 it displayed for the first time the skull of 'Winnipeg', the bear who lived at London Zoo during World War I and inspired the character Winnie-the-Pooh.
18. See the Royal College of Surgeons website: <<https://www.rcseng.ac.uk/museums/hunterian/history/johnhunter.html>> (last accessed 27 April 2016).
19. I am grateful to Simon Chaplin, the Director of Museums and Special Collections at the Hunterian, for this description. Also see Dobson, *William Clift*, p. 18, for further description of Hunter's principles of organisation.

20. See W. D. Ian Rolfe, 'Breaking the Great Chain of Being', in W. F. Bynum and Roy Porter (eds), *William Hunter and the Eighteenth-Century Medical World* (Cambridge: Cambridge University Press, 1985), pp. 297–319.
21. Stephen Asma, *Stuffed Animals and Pickled Heads: The Culture of Natural History Museums* (Oxford: Oxford University Press, 2001), pp. 60–4.
22. Asma, *Stuffed Animals and Pickled Heads*, pp. 140, 142.
23. Harvey, *Transatlantic Transcendentalism*, pp. 63–6.
24. Dobson, *William Clift*, p. 44.
25. Carla Yanni, *Nature's Museums: Victorian Science and the Architecture of Display* (Baltimore: Johns Hopkins University Press, 1999), p. 46.
26. Editor's Introduction, Coleridge, 'Theory of Life', vol. 1, p. 482.
27. Dobson, *William Clift*, p. 21.
28. See chapter 4 of Dobson, *William Clift*.
29. Sadly, the original coherence of the museum was even further compromised when it was struck by a direct hit by a bomb during World War II which destroyed a large portion of the specimens and its original organisation.
30. Emerson, 'Poetry and Imagination', in *Collected Works*, vol. 8, p. 3.
31. Emerson, 'The Uses of Natural History', in *The Early Lectures of Ralph Waldo Emerson*, ed. Stephen E. Whicher et al., 3 vols (Cambridge, MA: Harvard University Press, 1959–72), vol. 1, p. 22.
32. Emerson, 'The Uses of Natural History', p. 6.
33. Emerson, 'The Uses of Natural History', p. 24.
34. Emerson, 'The Uses of Natural History', p. 25.
35. Emerson, 'The Uses of Natural History', p. 26.
36. David van Leer observes, 'In his pursuit of the spiritual at the expense of the material, Emerson may seem an unlikely spokesman for any form of science'; 'Nature's Book: The Language of Science in the American Renaissance', in Andrew Cunningham and Nicholas Jardine (eds), *Romanticism and the Sciences* (Cambridge: Cambridge University Press, 1990), pp. 307–21, p. 307.
37. Michael P. Branch, 'Ralph Waldo Emerson', in John Elder (ed.), *American Nature Writers* (New York: Scribner's, 1996), vol. 1, pp. 287–307, p. 293.
38. Emerson, 'The Uses of Natural History', p. 10.
39. Emerson, 'The Uses of Natural History', p. 10.
40. Emerson, 'Poetry and Imagination', pp. 3–4.
41. Emerson, *Nature*, in *Collected Works*, vol. 1, p. 8.
42. See Harvey, *Transatlantic Transcendentalism*, pp. 66–7.
43. Samuel Taylor Coleridge, *The Friend*, ed. Barbara E. Rooke, 2 vols (vol. 4 of *The Collected Works of Samuel Taylor Coleridge*) (London and Princeton: Princeton University Press, 1969), vol. 1, p. 493 n.
44. Emerson, 'The Naturalist', in *Early Lectures*, vol. 1, p. 81.
45. Coleridge, *The Friend*, vol. 1, p. 471.
46. See Trevor H. Levere, *Poetry Realized in Nature: Samuel Taylor Coleridge and Early Nineteenth-Century Science* (Cambridge: Cambridge University Press, 1981).
47. Coleridge, *The Friend*, vol. 1, pp. 474–5.
48. Coleridge, *The Friend*, vol. 1, p. 494 n.
49. Richard Holmes, *The Age of Wonder: How the Romantic Generation Discovered the Beauty and Terror of Science* (New York: Pantheon Books, 2008), p. xviii.
50. Emerson, 'The Naturalist', p. 83. While there is no record of Emerson having read Coleridge's 'Hints', and the work was not published until 1848, Coleridge had composed most of it by 1816 and it is an intriguing possibility that he had access to the work in some form, or at the very least heard about its overarching ideas from his time spent at the Hunterian. The language in this passage is remarkably similar to that in 'Hints'.

51. Emerson, 'The Naturalist', p. 81.
52. Emerson, 'The Naturalist', pp. 81–2.
53. Emerson, 'The Naturalist', pp. 78, 79.
54. Yanni, *Nature's Museums*, p. 47.
55. Yanni, *Nature's Museums*, p. 49.
56. Emerson, *The Journals and Miscellaneous Notebooks of Ralph Waldo Emerson*, ed. William H. Gilman et al., 16 vols (Cambridge, MA: Harvard University Press, 1960–82), vol. 10, p. 527.
57. David M. Robinson, *Emerson and the Conduct of Life* (Cambridge: Cambridge University Press, 1993), p. 112.
58. Emerson, 'The Powers and Laws of Thought', in *The Later Lectures of Ralph Waldo Emerson, 1843–1871*, ed. Ronald A. Bosco and Joel Myerson, 2 vols (Athens and London: University of Georgia Press, 2001), vol. 1, pp. 136, 137.
59. Emerson, 'Intellect and Natural Science', in *The Later Lectures*, vol. 1, p. 155.
60. Emerson, 'Intellect and Natural Science', pp. 155–6.
61. Asma, *Stuffed Animals and Pickled Heads*, p. 142.
62. Emerson, 'Intellect and Natural Science', p. 159.
63. See Harvey, *Transatlantic Transcendentalism*, for a more detailed treatment of each of these concepts.
64. Emerson, 'Intellect and Natural Science', p. 161.
65. Emerson, 'Intellect and Natural Science', pp. 162–3.
66. Emerson, 'Intellect and Natural Science', p. 163.
67. David M. Robinson, 'British Science, The London Lectures, and Emerson's Philosophical Reorientation', in Tharaud (ed.), *Emerson for the Twenty-First Century*, pp. 285–300, p. 294.
68. See Richardson, *Emerson*, pp. 449–50, and William Rossi, 'Emerson, Nature, and Natural Science', in Joel Myerson (ed.), *A Historical Guide to Ralph Waldo Emerson* (Oxford: Oxford University Press, 2000), pp. 101–50, p. 114.
69. Emerson, 'Poetry and Imagination', p. 5.
70. Emerson, 'Poetry and Imagination', pp. 1–2.
71. Coleridge, *The Friend*, vol. 1, p. 457.
72. Coleridge, *The Friend*, vol. 1, pp. 445–6.
73. Harvey, *Transatlantic Transcendentalism*, pp. 66–75.
74. Emerson, 'Poetry and Imagination', p. 3.
75. Walls, *Emerson's Life in Science*, pp. 169–70, 175.
76. Emerson, *Nature*, p. 40.
77. Asma, *Stuffed Animals and Pickled Heads*, p. 145.
78. Emerson, 'Poetry and Imagination', p. 3.
79. Emerson, 'Poetry and Imagination', pp. 3–4.
80. Emerson, 'Poetry and Imagination', p. 4.