

Walter Pater and Non-Darwinian Science

Jordan Kistler*

ABSTRACT

Walter Pater's engagement with nineteenth-century science has long been acknowledged, but critics have often characterized it in negative terms. This essay demonstrates that while Pater viewed Darwinian evolutionary theory negatively, insisting that it 'stealthily withdraws the apparently solid earth itself from beneath one's feet' (*Plato and Platonism*, 1893), he embraced non-Darwinian theories of development. Peter J. Bowler has argued that an 'eclipse of Darwinism' or 'non-Darwinian revolution' took place in the second half of the nineteenth century, in which there was widespread public acceptance of the transmutation of species but not of the mechanism of adaptation and natural selection proposed by Darwin. Instead, as Bowler demonstrates, the prevailing understanding of evolution was of a non-Darwinian variety that emphasized form over function and design over random chance. I suggest that within these theories, such as the transcendental morphology propounded by Richard Owen, Pater finds a physical manifestation of his own particular philosophic blend of materialism and idealism. Viewed through this lens, many of Pater's theories in art and philosophy become clearer, such as his belief in the 'limitations' of sculpture, discussed in *Studies in the History of the Renaissance*. Instead of viewing this as a denigration of sculpture as the art form furthest from the ideal, this essay demonstrates that Pater viewed sculpture in terms of the archetype of transcendental morphology: something both material and immaterial, simple and yet also ideal. Far from retreating from the spectre of contemporary science, as many critics suggest Pater does, Pater views science and the humanities as complementary disciplines, or homologues, sharing an underlying structure.

KEYWORDS: Walter Pater, Richard Owen, Johann Wolfgang von Goethe, transcendental morphology, aestheticism, archetype, evolution, Darwinism

1. PATER AND VICTORIAN SCIENCE

Walter Pater's debt to modern science is evident throughout his oeuvre. He believed himself to be living in a scientific age and often turned to contemporary science as a source of analogies and metaphors, such as when he compared the art critic to a chemist in *Studies in the History of the Renaissance* (1873) or the philosopher to a taxonomist in *Plato and Platonism* (1892). In his essay 'Style' (1889), Pater explains his adoption of scientific terminology:

For many years to come [the English language's] enterprise may well lie in the naturalisation of the vocabulary of science, so only it be under the eye of a sensitive scholarship—in a liberal naturalisation of the ideas of science too, for after all the chief stimulus of good style is to possess a full, rich, complex matter to grapple with. The literary artist, therefore, will be well aware of physical science; science also attaining, in its turn, its true literary ideal.¹

* University of Strathclyde, Scotland, E-mail: Jordan.kistler@strath.ac.uk

¹ Walter Pater, *Appreciations: With an Essay on Style* (London: Macmillan and Co, 1889), p. 12.

In this essay, Pater argues that as past ages naturalized the language of German metaphysics and theology, his age will see the language of science adopted by all disciplines. He suggests that an understanding of scientific ideas enriches literary work, as it provides both a wider vocabulary and more complex ideas for the writer to ‘grapple with’. Here, Pater implies that the relationship between science and the humanities is one of exchange: science offers material – language and ideas – that the writer may borrow. Critics interested in Pater’s scientific metaphors have identified additional ways of framing the relationship between Pater’s aesthetic and literary pursuits and nineteenth-century science, including as one of shared ideology or shared methodology. Thus, Gowan Dawson argues that aestheticism and science equally sought to break with traditional Victorian religion and morality, while George Levine points to the importance of direct observation foregrounded in both art and science.²

I argue that the relationship between the humanities and science in Pater’s work goes beyond vocabulary, ideology, or methodology. Kanarakis Yannis comes closest to my understanding of this relationship when he argues that Pater presents art and science as having ‘structural kinship’, in the form of ‘a common organizing perception of the world into ordered and coherent wholes.’³ The phrase ‘structural kinship’ is very apt, but Yannis does not extend this to its natural conclusion: that Pater, following the terminology of nineteenth-century biology, sees a *homologous* rather than an *analogous* relationship between the sciences and the humanities.

Richard Owen, superintendent of the natural history departments at the British Museum and one of the most prominent scientists of the Victorian age, offered the following distinction between analogues and homologues in his 1848 *On the Archetype and Homologies of the Vertebrate Skeleton*:

Analogue.—A part or organ in one animal which has the same function as another part or organ in a different animal.

Homologue.—The same organ in different animals under every variety of form and function.⁴

Owen explains the difference with reference to the so-called ‘flying’ dragon, the *draco volans*. This Southeast Asian lizard possesses lateral flaps of skin that allow the animal to glide. The ‘parachute’, as Owen describes it, that allows the lizard to ‘fly’ is *analogous* to the wings of a bird, because they perform the same function. However, the parachute is not a *homologue* of the wing of the bird, as it does not have the same form. The bones supporting the ‘parachute’ are ribs, while the bird’s wing is constructed of a humerus, radius, ulna, carpometacarpus, and phalanges. Instead, the forelimbs of the lizard, ‘being composed of essentially the same parts as the wings of a bird’ are the homologues in this species.⁵

² Gowan Dawson, *Darwin, Literature and Victorian Respectability* (Cambridge: Cambridge University Press, 2007); George Levine, ‘Two Ways Not to be a Solipsist: Art and Science, Pater and Pearson’, *Victorian Studies*, 43 (2000), 7–41.

³ Kanarakis Yannis, ‘The Aesthete as Scientist: Walter Pater and Nineteenth-Century Science’, *Victorian Network*, 2 (2010), 88–105 (pp. 93–94).

⁴ Richard Owen, *On the Archetype and Homologies of the Vertebrate Skeleton* (London: Richard and John E. Taylor, 1848), p. 7.

⁵ Owen, *On the Archetype and Homologies*, p. 7.

While most critics see Pater drawing *analogies* between science and art, I argue that he views these disciplines as *homologous*. Pater extends the relationship between art and science beyond shared goals or methodology to suggest that both disciplines – in fact, all disciplines – share an underlying form. This belief is evident in all of Pater’s multifarious works: his art history writings, his philosophical lectures, and his single novel, *Marius the Epicurean* (1885). This facet of Pater’s work has been overlooked up to now, I suggest, because while many critics have explored Pater’s investment in contemporary science – including George Levine, Jonathan Smith, Gowan Dawson, and other prominent names in the field of literature and science – most find in Pater a pessimistic or ambivalent reaction to science.

Thus, Kate Hext argues that Pater was dissatisfied with the empiricist epistemological paradigm of late nineteenth-century Britain; Denis Donoghue insists that Pater did not endorse the scientist’s account of life; and Kit Andrews suggests that Pater focused on the ‘negative action of the scientific spirit.’⁶ Levine, while noting the methodological overlaps between Pater’s aestheticism and the science of his day, still suggests that Pater’s longing for stability in a destabilized world caused him to retreat from science back to the comforts of his own discipline:

Pater’s art is thick with nostalgia for stabilities in which history and science have convinced him that he can no longer believe. But he is an historian and critic rather than a scientist, and so he can have his cake and eat it, too. He can relish the charms of past superstitions and faiths without committing himself to them—merely incorporating them as some of those sensations the aesthetic critic is committed not to miss.⁷

Hext similarly suggests that Pater retreats from a full engagement with the realities of nineteenth-century science, insisting that:

He takes refuge from the assaults of scientific truth, which might provoke terror, by subjecting it to the imagination. Pater’s words transform evolution into an aesthetic spectacle, and in becoming its spectators we momentarily believe that we might ‘be a match for nature’s seeming omnipotence.’⁸

Both Levine and Hext suggest that Pater uses science as an aesthetic rather than a set of beliefs or facts to which he must fully commit.

This insistence that Pater retreats from the reality of science when it becomes too challenging is predicated on the depiction of the flux of ‘modern thought’ in the famous conclusion to the *Renaissance*. Here, Pater argues that ‘[t]o regard all things and principles of things as inconstant modes or fashions has more and more become the tendency of modern thought.’⁹ This passage suggests that science has revealed to the contemporary world that our lives are ‘but the concurrence, renewed from moment to moment, of forces parting sooner or later on their ways.’¹⁰ As Angela Leighton notes, ‘Classical atomic theory offers Pater the basis of

⁶ Kate Hext, *Walter Pater: Individualism and Aesthetic Philosophy* (Edinburgh: Edinburgh University Press, 2013), p. 46; Denis Donoghue, *Walter Pater: Lover of Strange Souls* (New York, NY: Alfred A. Knopf, 1995), p. 49; Kit Andrews, ‘Walter Pater as Oxford Hegelian: Plato and Platonism and T. H. Green’s Prolegomena to Ethics’, *Journal of the History of Ideas*, 72 (2011), 437–59 (p. 441).

⁷ Levine, ‘Two Ways’, p. 34.

⁸ Hext, *Walter Pater*, p. 138.

⁹ Walter Pater, *Studies in the History of the Renaissance* (Oxford: Oxford University Press, 2010), p. 118.

¹⁰ Pater, *Renaissance*, p. 118.

an Epicurean world view characterized by the meeting and dispersal of the purely physical “forces” of matter.¹¹ This is, as Hext argues, a ‘dystopian vision’ of a Humean loss of individuality, in which ‘subjectivity gets out of hand and becomes monstrous.’¹² Pater seems to suggest that the revelations of nineteenth-century science lead to solipsism and eventually ‘that continual vanishing away, that strange, perpetual weaving and unweaving of ourselves.’¹³

Recently, however, scholars have begun to challenge this understanding of Pater’s engagement with science. By reading Pater through sciences other than Darwinian biology, scholars such as Denis Denisoff and Benjamin Morgan have refuted the solipsistic reading of the ‘Conclusion’, noting that Pater presents himself – and wider humanity – as deeply entangled in a network of animate and inanimate matter. Thus, Denisoff considers Pater through the lens of Victorian ecology to argue that Pater practises a form of ‘pagan decadence’ that ‘encourages a spiritually inflected respect for the environment of which [he] saw [himself] to be a part.’¹⁴ Morgan, too, considers Pater’s presentation of humanity as part of a ‘web of relationship’, based on the growing field of Victorian psychology and its insistence on the materiality of the human mind.¹⁵ The present essay will add to this recent scholarship by positioning Pater in relation to alternative Victorian theories of evolution and development in order to argue that what Pater retreats from in his corpus is not science in its entirety, but rather Darwinism specifically.

Unlike most other Victorian theories of evolution, Darwin asserted that biological change occurred solely in response to changes in environment or lifestyle. His theory was thus purely materialist, leaving no room for design nor teleology. Darwin argued that evolution was random and undirected, a branching tree rather than a linear ladder. It was these aspects of Darwinian theory that Pater found so troubling. In *Plato and Platonism*, Pater makes clear that he associates Darwinism with the Heraclitean flux, the dissolving force which so famously drives the ‘Conclusion’ of *The Renaissance* to the edge of solipsism. Pater insists that ‘the entire modern theory of “development”, in all its various phases, proved or unprovable,— what is it but old Heracliteanism awake once more in a new world, and grown to full proportions?’¹⁶ The ‘amorphism’ of Heracliteanism dissolves ‘opinion, first principles, faith’, and even personal identity (just as in the ‘Conclusion’): ‘But the principle lapse, of waste, was, in fact, in one’s self . . . Nay, the passenger himself is without identity.’¹⁷ Within this philosophy, ‘All things give way: nothing remaineth.’¹⁸ In both the ‘Conclusion’ and *Plato and Platonism*, Pater suggests that the ‘theory of development’ accomplishes the same thing in the modern world

¹¹ Angela Leighton, *On Form: Poetry, Aestheticism, and the Legacy of a Word* (Oxford: Oxford University Press, 2008), p. 79.

¹² Hext, *Walter Pater*, p. 51.

¹³ Pater, *Renaissance*, p. 119.

¹⁴ Denis Denisoff, *Decadent Ecology in British Literature and Art, 1860–1910: Decay, Desire, and the Pagan Revival* (Cambridge: Cambridge University Press, 2021), p. 34.

¹⁵ Benjamin Morgan, *The Outward Mind: Materialist Aesthetics in Victorian Science and Literature* (Chicago, IL: University of Chicago Press 2017), p. 170.

¹⁶ Walter Pater, *Plato and Platonism: A Series of Lectures* (London: Macmillan and Co., 1893), p. 13. As Alan Silverman explains, ‘Heraclitus is the apostle of change. For Heraclitus, the ordinary objects of the physical world seem to be continually changing. The only constant, the underlying commonality, is the pattern of change itself’. Alan Silverman, ‘Plato’s Middle Period Metaphysics and Epistemology’, in *The Stanford Encyclopedia of Philosophy*, ed. by Edward N. Zalta and Uri Nodelman (Fall 2022 Edition), <<https://plato.stanford.edu/archives/fall2022/entries/plato-metaphysics/>> [accessed 31 October 2022] (para. 5).

¹⁷ Pater, *Plato and Platonism*, pp. 15, 10.

¹⁸ Pater, *Plato and Platonism*, p. 9.

that Heracliteanism did in the ancient world: it ‘stealthily withdraws the apparently solid earth itself from beneath one’s feet.’¹⁹ Thus, Pater insists:

Nay, the idea of development (that, too, a thing of growth, developed in the progress of reflexion) is at last invading one by one, as the secret of their explanation, all the products of mind, the very mind itself, the abstract reason; our certainty, for instance, that two and two make four.²⁰

Pater here suggests that knowledge is impossible in a modern world in which nothing is absolute or eternal. The ‘scepticism of Hume or Mill’, is ‘beset with insane speculative figments.’²¹ The picture Pater gives of Heraclitus’s ‘doctrine of motion’ is one familiar to the study of literature and science at the end of the nineteenth century and the negative portrait of Darwinism apparent in decadent texts obsessed with degeneration and disease. Yet while this is a dystopian vision of the impact of Victorian science on modern thought, it is limited to the unsettling flux of Darwinism, which centres randomness, rendering history contingent and the future unpredictable. Likewise, the flux of the ‘Conclusion’ is not presented as the ultimate reality of the modern age, but rather as a potential dystopian outcome of the adoption of pure empiricism and the solipsism it engenders. I argue that Pater expresses deep anxiety about undirected development but finds comfort within other theories of evolution that centred an underlying creative force or plan which provides unity within diversity and stability within the flux.

2. NON-DARWINIAN SCIENCE

From our current perspective in the twenty-first century, Darwin appears to be the preeminent voice of nineteenth-century evolution. However, this was not the case in the nineteenth century itself. As Peter J. Bowler has demonstrated, the idea of evolution gained far more traction with both the public and the scientific community than the specific mechanism of natural selection – with its emphasis on chance – did.²² Popularizers of contemporary science like Richard Owen and Herbert Spencer preached evolutionary theory, but a kind far different from Darwin’s. Thus, Bowler demonstrates that most Victorians had accepted evolution by the 1870s, but resisted the idea of undirected development, so that by 1900, natural selection had ‘fallen almost completely out of favor.’²³ Bowler has termed this an ‘eclipse of Darwinism’ or a ‘non-Darwinian revolution.’²⁴ As Bowler demonstrates, even staunch Darwinists like T. H. Huxley resisted the more radical aspects of Darwin’s theory; thus, ‘[b]y 1878 [Huxley] was openly arguing that evolution might be directed along definite lines.’²⁵ The majority of alternatives offered to Darwinism suggested, as Huxley did, that there was some form of internal mechanism driving evolution along a definite or predetermined path. This took many different forms: recapitulation theory, which suggested that embryos repeat the history of

¹⁹ Pater, *Plato and Platonism*, p. 10.

²⁰ Pater, *Plato and Platonism*, p. 15.

²¹ Pater, *Plato and Platonism*, p. 24.

²² Peter J. Bowler, *Evolution: The History of an Idea* (Berkeley, CA: University of California Press, 1984).

²³ Bowler, *Evolution*, p. 233.

²⁴ Peter J. Bowler, *The Eclipse of Darwinism: Anti-Darwinian Evolution Theories in the Decades around 1900* (Baltimore, MD, and London: Johns Hopkins University Press, 1983); Bowler, *The Non-Darwinian Revolution: Reinterpreting a Historical Myth* (Baltimore, MD and London: Johns Hopkins University Press, 1988).

²⁵ Bowler, *Non-Darwinian Revolution*, p. 80.

their species; neo-Lamarckian orthogenesis, which posited an internal driving force moving species in a definite direction; and transcendental morphology, which suggested species developed according to a predetermined blueprint or pattern. Each theory tempered the more radical and disturbing aspects of Darwinism: its randomness and its materialism. While most scientists of the later Victorian period no longer spoke of a divine plan for creation, their evolutionary theories intermingled materialism and idealism.

Throughout his oeuvre, Pater, too, seeks to marry materialism and idealism, neither of which he found satisfactory on its own. Though idealism is traditionally conceived of as the opposite of Heracliteanism, Pater believes that these traditions lead to the same result: ‘pure Nothing.’²⁶ Like the empiricist, the idealist argues that the object ‘more properly is not than is.’²⁷ To go that far beyond the concrete, observable world as we know it is to abstract into nothingness: ‘to think of it in this way was in reality not to think of it at all.’²⁸ Pater thus declares that his own stance is a compromise between the flux of Heraclitus and the absolutism of Parmenides:

Taking our own stand as to this matter somewhere between the realist and the conceptualist: -- See! We might say, there is a general consciousness, a permanent common sense, independent indeed of each one of us, but with which we are, each one of us, in communication. It is in that, those common or general ideas really reside.²⁹

Pater seeks what is both ‘general’ and ‘permanent’; that is, something universal and fixed, independent of us (and therefore not merely an impression in our subjective consciousness) and perceivable by all.

Levine has argued that ‘Pater . . . aspired to some kind of stability within the world in flux’, yet he asserts that in the end Pater accepted this was not possible.³⁰ I suggest that Pater *does* find stability, and he finds it within science – but not Darwinian evolutionary theory. Pater seeks a stabilizing ideal that is grounded in the actual perceivable world, where these ‘general ideas *really* reside’ [my italics], and he finds this through German *Naturphilosophie* and its later manifestation as transcendental morphology in England.

Stefano Evangelista has argued for Johann Wolfgang von Goethe’s influence on Pater, but only in the realm of aesthetics.³¹ I suggest that Goethe’s scientific work was also influential, in Pater’s search for the ‘general’ and ‘permanent’ within the dizzying flux modern thought. Goethe was a proponent of *naturphilosophie*, which combined ‘intuitive empiricism and neo-Platonic metaphysics.’³² Goethe sought a philosophical system which would provide a framework for scientific study in comparative anatomy and botany. To achieve this, he associated Platonic abstracts with concrete natural laws and perceivable natural forms, which, he argued, it is the object of scientific enquiry to discover. Thus, Goethe insisted:

²⁶ Pater, *Plato and Platonism*, p. 27.

²⁷ Pater, *Plato and Platonism*, p. 28.

²⁸ Pater, *Plato and Platonism*, p. 27.

²⁹ Pater, *Plato and Platonism*, p. 135.

³⁰ Levine, ‘Two Ways’, p. 34.

³¹ Stefano Evangelista, ‘“Life in the Whole”: Goethe and English Aestheticism’, *Publications of the English Goethe Society*, 82 (2013), 180–92.

³² H. B. Nisbet, ‘Religion and Philosophy’, in *The Cambridge Companion to Goethe*, ed. by Lesley Sharpe (Cambridge: Cambridge University Press, 2002), pp. 219–31 (p. 227).

In general, events we become aware of through experience are simply those we can categorise empirically after some observation. These categories may be further subsumed under scientific categories leading to even higher levels. In the process we become familiar with certain requisite conditions for what is manifesting itself. From this point everything gradually falls into place under higher principles and laws revealed not to our reason through words and hypotheses, but to our intuitive perception through phenomena. We call these phenomena *archetypal phenomena* because nothing higher manifests itself in the world³³

These phenomena are concrete, observable through ‘experience’, yet they are also ideal and abstract. As Joan Steigerwald explains, Goethe’s phenomena ‘are not simply visible appearances found within nature, [but] neither are they ideas of nature existing only in thought. Rather, primordial forms were depicted by Goethe as general images, *Urbilder*, abstracted from experience.’³⁴ I suggest that it is this particular marriage of materialism and idealism, which locates Plato’s Ideas within the observable natural world, that guides Pater’s own philosophical stance. Thus, Pater argues that to discover ‘order’ within ‘chaos’ is the ‘purpose of what we call philosophy’; that order, he suggests, is found within the ‘common measure of things’, the ‘essential laws of measure in time and space’, such as ‘numerical laws’, which exist ‘independently of ourselves’ (that is, *a priori*) and yet also ‘in the real world without us’ (and thus are empirically observable).³⁵ The reality of these laws or categories, which, as we will see, provide both fixity and directed development, disproves the ‘perpetual motion’ of Darwinian theory, with its emphasis on chance and undirected change.

3. THE ARCHETYPE

One of the archetypal phenomena that Goethe identified was that of the *Urpflanze*, or ‘primal plant’, first theorized in his *Die Metamorphose der Pflanzen* (1790). The primal plant represented the ‘basic model’ of plant life, a structural blueprint for all plants that had ever existed or would exist. As Goethe asserted, ‘There certainly must be one. Otherwise, how could I recognise that this or that form *was* a plant if all were not built upon the same basic model?’³⁶ Here, *a priori* ideas are transformed into underlying natural structures that unite the great variety of life on earth into recognizable categories. It is the idea of the archetype as structural model or blueprint that I wish to explore for the rest of this essay.

The key features of the archetype for our purposes are that it reveals unity within variety, it is simultaneously ideal *and* simple, and it is expressive of future potential. As the essence of plantness, the primal plant represented unity within the great diversity of the botanical world. Tanya Kelley explains that ‘Goethe pictured a blueprint or *Bauplan* for ‘plantness’ that would run like a common thread through all plants; no matter how they were transformed over time and space all plants would be recognizable as plants through an underlying code.’³⁷

³³ Johann Wolfgang von Goethe, ‘Theory of Color: Didactic section’, in *Goethe: Scientific Studies*, ed. and trans. by D. Miller (New York, NY: Suhrkamp Publishers, 1988), pp. 157–298 (p. 194).

³⁴ Joan Steigerwald, ‘Goethe’s Morphology: Urphänomene and Aesthetic Appraisal’, *Journal of the History of Biology*, 35 (2002), 291–328 (p. 296).

³⁵ Pater, *Plato and Platonism*, p. 45.

³⁶ Johann Wolfgang von Goethe, *Italian Journey*, trans. by W. H. Auden and E. Mayer (Harmondsworth: Penguin, 1970), p. 259.

³⁷ Tanya Kelley, ‘Goethe’s Plant Morphology: The Seeds of Evolution’, *JIDR Journal of Interdisciplinary Research*, 1 (2007), 1–15 (p. 12).

The archetype, representing a common underlying form, was necessarily free of all irregularities or aberrances that might mar an individual specimen, and thus represented an ideal form; yet, the primal plant was also the simplest possible form plant life could take.³⁸ In its simplicity it was, furthermore, expressive of future potential. Thus, Goethe asserted that an animal archetype would provide ‘a general picture containing the forms of all animals as potential’.³⁹ This was an abstract ideal, yet also grounded in empirical reality. As Robert J. Richards notes, Goethe ‘justified this belief methodologically and experientially’.⁴⁰

The search for these ideal natural forms through comparative anatomy is known as transcendental morphology, a discipline popularized in England by Richard Owen. In his 1848 work *On the Archetype and Homologies of the Vertebrate Skeleton*, Owen proposed a vertebrate archetype like the one that Goethe discusses above, a ‘blueprint’ from which all vertebrate skeletons diverged, in increasing diversity and specialization. This archetype underpinned Owen’s version of evolution, which remained popular with scientists and the public alike throughout the nineteenth century.

I suggest that the archetype, especially as it was expressed by Owen, is an essential figure in all of Pater’s work. The archetype, Owen argued, allowed the comparative anatomist to identify ‘the unity which pervades the diversity’ of life.⁴¹ According to Pater, this is also the purpose of philosophy: ‘To realize unity in variety, to discover *cosmos*—an order that shall satisfy one’s reasonable soul—below and within apparent chaos: is from first to last the continuous purpose of what we call philosophy’.⁴² Here we see how Pater frames philosophy and science as homologous disciplines; while outwardly different, they share an internal form – they are both guided by and tasked with discovering the underlying ‘archetypes’ or ideals which structure the world and stabilize its ‘apparent chaos’.

That Pater is thinking specifically of comparative anatomy and natural history in this description of his search for ‘unity in variety’ is clear in the examples he chooses with which to explicate the concept. Pater begins with a garden and a ‘systematic, logical gardener’ whose ‘meddlesome hand’ has labelled and organized everything by ‘genus and species and *differentia*, into formal classes, under general notions’.⁴³ At first, this appears to be a critique, similar to his attack on ‘habits’ or ‘orthodoxy’ in the conclusion to the *Renaissance*: limiting dogmas that prevent one from ‘curiously testing new opinions and courting new impressions’.⁴⁴ Yet Pater goes on to insist that through the identification of ‘unity’ in the form of genus and species, etc., the garden is now ‘more interesting than ever’:

The concrete, and that even as a visible thing, has gained immeasurably in richness and compass, in fineness, and interest towards us, by the process, of which those acts of generalisation, of reduction to class and generic type, have certainly been a part. And holding still to the concrete, the particular, to the visible or sensuous, if you will, last as first, thinking of that as essentially the one vital and lively thing, really worth our

³⁸ Lorraine Daston and Peter Galison, *Objectivity* (New York, NY: Zone Books, 2010), p. 67.

³⁹ Johann Wolfgang von Goethe, ‘Outline for a General Introduction to Comparative Anatomy, Commencing with Osteology’, in *Scientific Studies*, p. 118.

⁴⁰ Robert J. Richards, *The Meaning of Evolution: The Morphological Construction and Ideological Reconstruction of Darwin’s Theory* (Chicago, IL: Chicago University Press, 1992), p. 21.

⁴¹ Owen, *On the Archetype and Homologies*, p. 164.

⁴² Pater, *Plato and Platonism*, p. 45.

⁴³ Pater, *Plato and Platonism*, pp. 139–40.

⁴⁴ Pater, *Renaissance*, p. 120.

while in a short life, we may recognise sincerely what generalisation and abstraction have done or may do, are defensible as doing, just for that—for the particular gem or flower—what its proper service is to a mind in search, precisely, of a concrete and intuitive knowledge such as that.⁴⁵

The process that Pater describes here, of moving from the concrete and visible to the abstract and invisible, is precisely the process by which Goethe says we identify archetypal phenomena, the subsumption of the thing itself into ‘scientific categories’ that reveal ‘higher principles and laws.’⁴⁶ It is clear that for Pater, as for Goethe, abstract generalization is not a metaphysical idea, but rather a material category of nature.

The language Pater uses in this passage to describe the benefit of the abstract is that of enrichment and addition. This is in clear contrast to the ‘flux’ of the ‘Conclusion’, which is described in terms of subtraction or reduction. The ‘scepticism’ associated with Darwinism dissipates, devours, contracts, extinguishes, narrows, isolates, dwindles, limits, divides, dissolves and unweaves. Equally, as we saw in *Plato and Platonism*, Pater also described pure idealism as a form of subtraction. It ‘annuls.’⁴⁷ Enrichment, therefore, comes from the marriage of materialism and idealism. Through this blended philosophy, we ‘gain immeasurably.’ Most importantly, it is the subjective experience – the heart of all of Pater’s theories – that is enriched. Pater thus argues that our individual impressions, ‘what we actually see’, are improved by knowledge of categories and orders.

Next, Pater envisions a ‘layman’ finding a seashell. The layman is initially like a ‘child’, drawn only to the shell’s ‘colours and convolution.’⁴⁸ This is a purely subjective, aesthetic experience. Pater then considers what might happen were the layman to learn about ‘the subsumption of the individual to the species [and] its subsequent alliance to and co-ordination with other species.’⁴⁹ Rather than ‘sacrific[ing] the concrete, the real and living product of nature, to a mere dry and abstract product of the mind’, he argues that this knowledge improves the experience of the concrete, ‘the particular thing he actually sees’.⁵⁰

By its juxtaposition and co-ordination with what is ever more and more not *it*, by the contrast of its very imperfection, at this point or that, with its own proper and perfect type, this concrete and particular thing has, in fact, been enriched by the whole colour and expression of the whole circumjacent world, concentrated upon, or as it were at focus in, it. By a kind of short-hand now, and as if in a single moment of vision, all that, which only a long experience, moving patiently from part to part, could exhaust, its manifold alliance with the entire world of nature, is legible upon it, as it lies there in one’s hand.⁵¹

Here the language of the archetype is explicit. The shell should be compared to the ‘perfect type’, that underlying ideal form, and through that ‘juxtaposition’ the subjective experience

⁴⁵ Pater, *Plato and Platonism*, p. 140.

⁴⁶ Johann Wolfgang von Goethe, ‘Theory of Color: Didactic section’, in *Scientific Studies*, p. 194.

⁴⁷ Pater, *Plato and Platonism*, p. 28.

⁴⁸ Pater, *Plato and Platonism*, pp. 140–41.

⁴⁹ Pater, *Plato and Platonism*, pp. 140–41.

⁵⁰ Pater, *Plato and Platonism*, p. 141.

⁵¹ Pater, *Plato and Platonism*, pp. 141–42.

of beauty is improved. The 'single moment of vision' that Pater values so highly throughout his oeuvre is made more intense through taxonomic knowledge. It folds 'long experience' into the 'single moment'. In drawing this comparison to the botanist and the natural historian, Pater is not merely suggesting that philosophy and science are analogous. Rather, he asserts that they are homologous; he suggests that all disciplines search for underlying structures that enrich the singular moment while also providing fixity and connectivity in a chaotic world. Their function, however, may be different. Thus, the archetype might provide scientists with insights into natural laws, while the same archetypes present moral or social truths to the philosopher. Thus, Pater turns to natural history not just as a convenient metaphor to explain the philosophic theories of the ancient world, but as a homologous discipline with practices that can be implemented across the humanities and the sciences.

4. THE VALUE OF THE 'TYPE'

Pater's indebtedness to non-Darwinian evolutionary theory, particularly in the form of the archetype, helps us to make sense of one of the more opaque passages in his art history writing. Pater's apparent denigration of sculpture in 'Luca Della Robbia' has puzzled scholars who have considered this essay only in the light of Victorian aesthetic theory. Pater's thinking becomes far clearer through the lens of Victorian science. His infamous hierarchy of the arts theorized in the *Renaissance* – which places music at the pinnacle of artistic achievement, as the perfect fusion of form and content, and situates sculpture at the bottom, as the mere presentment of hard form – has not previously been considered as what it truly is: a taxonomy, which considers individual art forms as part of a wider genus or family of art.

In 'Luca della Robbia', Pater writes of 'the special limitation of sculpture', which is the tendency towards 'hard realism, a one-sided presentment of mere form':

Against this tendency to the hard presentment of mere form which tries vainly to compete with the reality of nature itself, all noble sculpture is constantly struggling; each great system of sculpture resisting it in its own way, etherealising, spiritualising, relieving its hardness, its heaviness and death.⁵²

This passage is often discussed in conjunction with a passage from 'The School of Giorgione', added to *The Renaissance* in 1888, in which Pater again discusses the 'condition', 'form', and 'spirit' of art:

Art, then, is thus always striving to be independent of the mere intelligence, to become a matter of pure perception, to get rid of its responsibilities to its subject or material; . . . It is the art of music which most completely realises this artistic ideal, this perfect identification of matter and form . . . therefore, to the condition of its perfect moments, all the arts may be supposed constantly to tend and aspire. In music, then, rather than in poetry, is to be found the true type or measure of perfected art. Therefore . . . the arts may be represented as continually struggling after the law or principle of music, to a condition which music alone completely realises;⁵³

⁵² Pater, *Renaissance*, p. 37.

⁵³ Pater, *Renaissance*, pp. 126–27.

The repetition of subject matter and language in the two passages encourages us to read them together. In both passages, Pater refers to ‘struggling’ against and ‘aspiration’ towards: language that is suggestive of progressive development and encourages readers to see these passages as describing a hierarchy of art forms, in which sculpture is the lowest and music the highest form. This reading is supported by the invocation of the Renaissance *paragone*, or comparison between art forms; as Lene Østermark-Johansen explains, one of the most famous of these comparisons is Leonardo da Vinci’s, which denigrates sculpture as a purely mechanical craft.⁵⁴ This view of sculpture remained prevalent into the nineteenth century, with writers like Charles Baudelaire continuing to view sculpture as the lowest art form. Østermark-Johansen notes that Baudelaire ‘associated sculpture with lack of intellect, imagination and artifice . . . Baudelaire begins his 1846 *Salon* by asserting the primitiveness of sculpture, and his association of the art with the carving of fetishes.’⁵⁵ In that essay, Baudelaire employs the language of nineteenth-century anthropology and evolution in order to denigrate sculpture by associating it with that which is primitive or ancestral. Pater, too, makes use of the language of development and origins in his discussion of sculpture, but I argue that he does so not to denigrate but to elevate it. A number of critics, including Østermark-Johansen, have challenged the idea that Pater uses ‘mere form’ pejoratively, but I suggest they have overlooked an important context which led him to couch his discussion of sculpture in terms of origins or baseness: that of transcendental morphology.⁵⁶ Like Goethe’s *Urpflanze*, Owen’s vertebrate archetype is both the most ideal and the simplest form of life. Owen spoke of the archetype as ‘what Plato would have called the “Divine Idea”, yet also conceived of it as the simplest or least developed form of life. Thus, one of the essential features of transcendental morphology, especially as developed by Owen, was its introduction of a value-neutral spectrum in the place of a hierarchy of development, which emphasized future potential rather than the elimination of unfit characteristics.

Pater identifies two forces at work in art: ‘hard realism’ and ‘pure perception’. In philosophical terms, these correspond to the material and the ideal, as ‘pure perception’ is that which is left when the ‘subject or material’ has been shed. It is an abstraction. In ‘The School of Giorgione’, Pater insists that music is ‘the true type or measure of perfected art’, as it is the closest to the ‘artistic ideal’ of ‘pure perception.’⁵⁷ This seems like strict Platonism, in which music aligns with the immaterial world of Ideas, while sculpture corresponds to the material (inferior) world. In this way of thinking, sculpture might be seen to represent materialism or Heracliteanism – the purely material or mechanical. This is how the passage has often been interpreted. Yet, as we have seen, Pater’s own philosophy is not pure idealism; he rejects both idealism and materialism because they lead only to unreality and flux. He seeks that which marries the two philosophies, and I suggest it is in sculpture, rather than music, that he finds the ideal of this blended philosophy.

In ‘Luca della Robbia’, Pater discusses the means by which skilful sculptors overcome the limitations of sculpture and the tendency to ‘hard realism’:

⁵⁴ Lene Østermark-Johansen, ‘Caught Between Gautier and Baudelaire: Walter Pater and the Death of Sculpture’, *Yearbook of English Studies*, 40 (2010), 180–95 (p. 184).

⁵⁵ Lene Østermark-Johansen, *Walter Pater and the Language of Sculpture* (Abingdon: Routledge, 2011), p. 144.

⁵⁶ Leighton has considered Pater’s use of ‘form’ in the *Renaissance* in the light of nineteenth-century science, but only Darwinian theory. She thus concludes that ‘Pater quietly undermines any doctrine of permanent forms, whether Platonic or aesthetic. Form is no more permanent than matter’ (*On Form*, p. 89). Yet, as we have seen, Pater does believe in that which is permanent.

⁵⁷ Pater, *Renaissance*, p. 127.

Allgemeinheit—breadth, generality, universality—is the word chosen by Winckelmann, and after him by Goethe and many German critics, to express that law of the most excellent Greek sculptors, of Phidias and his pupils, which prompted them constantly to seek the type in the individual, to purge from the individual all that belongs only to the individual, all the accidents, feelings, actions of a special moment, all that in its nature enduring for a moment looks like a frozen thing if you arrest it, to abstract and express only what is permanent, structural, abiding.⁵⁸

The principle of *Allgemeinheit*, which is found in ‘the most excellent’ sculpture, marries the ‘essence’ or ‘pure thoughts or ideas’ of art to that which is ‘permanent’ and ‘structural.’⁵⁹ It brings together the material and the immaterial. As Pater notes, *Allgemeinheit* translates to ‘generality’ or ‘universality’; it is therefore a manifestation in art of the same principle as classification in natural history, which Pater identified as a ‘generalising movement’.

Østermark-Johansen has discussed this passage in terms of its ‘neoplatonic language’ which suggests ‘an upward dynamic’ that ‘point[s] away from materiality.’⁶⁰ Here Østermark-Johansen continues to use the language of a hierarchy or scale. In contrast, I suggest that Pater equally values that which is ‘permanent, structural, abiding’ as he does that which is ‘etherealising’, because he associates the former with the unity of design of the archetype.⁶¹

Pater’s ideas in the *Allgemeinheit* passage coalesce in his use of the word ‘type.’ I suggest that this is part of the wider naturalization of scientific vocabulary that he advocated for in ‘Style.’ Pater uses the word ‘type’ 44 times in *The Renaissance*, occasionally to mean ‘kind’ or ‘variety’, but more often to suggest someone or something who is the most representative or best of their kind, as when he refers to ‘the genius of which Botticelli is the type.’⁶² His use of ‘type’ in the da Vinci essay, in which he refers to ‘the original’ as a ‘type’, further aligns the word with origins rather than with imitations.⁶³ His usage here is adopted from natural history, in which a type-species or type-specimen would be the ‘species which most perfectly exemplifies its genus’ and ‘a specimen or individual on which the species is based and from which the specific name is taken.’ Further, I suggest that in Pater’s conception of the ‘type’ as that which is both ‘permanent, structural, abiding’ and an ‘abstract’ ‘essence’, he invokes the archetype of transcendental morphology. In Owen’s *On the Archetype and Homologies of the Vertebrate Skeleton*, the word ‘type’ is preceded by ‘general’, ‘common’, ‘fundamental’, and ‘primitive’, but also ‘perfect.’ It is thus associated with ancestral origins (the primitive), unity (the common), and ideals (the perfect). And, for Owen, the archetype is connected with aesthetics: there is beauty in the adherence to the common or simplest form.

Thus, while Baudelaire employed the language of nineteenth-century ethnology and anthropology to construct a scale from the ‘primitive’ to the sophisticated or civilized, Pater uses the terms of transcendental morphology to develop a spectrum of the simplest to the most complex, without the value judgements apparent in Baudelaire’s denigration of sculpture as a ‘Carib art.’ As Østermark-Johansen notes, ‘the strange adjective “Carib” carries connotations

⁵⁸ Pater, *Renaissance*, p. 37.

⁵⁹ Pater, *Renaissance*, p. 37.

⁶⁰ Østermark-Johansen, *Language*, p. 147.

⁶¹ Pater, *Renaissance*, p. 37.

⁶² Pater, *Renaissance*, p. 31.

⁶³ Pater, *Renaissance*, p. 67.

of cannibalism, savage nudity, and a culture with no definite beginning'.⁶⁴ For Pater, sculpture is not the lowest form, it is simply that which is *closest* to the archetype.

While Owen's archetype and Darwin's common ancestor seem quite similar on the surface – both are a far simpler form of life from which more complex species developed – they differ in the degree of perfection attributed to that archetype or ancestor, as well as in the purposefulness of any subsequent evolution/differentiation. This difference is perhaps best explained through the contrasting ways in which Owen and Darwin explained non-functional parts of the body, like the pelvic spurs of snakes or tailbone of humans. Darwin viewed these non-functional parts as vestiges, while Owen saw them as rudiments. As Nicolaas Rupke explains:

a rudiment, in a purely idealist interpretation, foreshadows what is to come, namely a fully developed and functional organ in a higher organism; whereas in an evolutionary view, the same rudiment is a vestige, a degenerated remnant of a formerly functional part of the body.⁶⁵

Rudiments represent future potential and adherence to the archetypal plan, while vestiges represent past function that has now become degenerate. One is positive, full of promise, while the other is negative, representative of loss. Owen's archetype is the ultimate 'rudiment' or 'first principle'. It contains all the future potential of the world within its carefully crafted design or 'predetermined pattern'.⁶⁶ As Rupke and Giovanni Camardi both argue, while transcendental morphology was indebted to idealism, Owen's archetype cannot be conceived of as Platonic in a traditional sense, because it represents the simplest rather than the most developed form.⁶⁷ Yet it is still an ideal, 'a metaphysical, preexistent entity'.⁶⁸ In contrast, Darwin discusses the common progenitor of life simply as an organism that has since been supplanted by more successful forms. To return to the world of art, for Baudelaire, contemporary sculpture would be a vestige of a past primitive age. For Pater, ancient sculpture is the rudiment of the fully developed modern art world.

The idea of an underlying form which is both simple and ideal, indicative of overarching design, and full of potential, guides how Pater discusses sculpture across all his works. Successful sculpture, that which has adhered to the law of *Allgemeinheit*, expresses 'only what is structural and permanent'. While da Vinci dismissed sculpture as a 'mechanical craft' 'involving hard physical labour rather than intellectual creativity', Pater associates that which is 'structural and permanent' with the intellect. It is indicative of *design*.⁶⁹ Thus, in 'Style' Pater insists that in all art 'structure is all-important'.⁷⁰ This structure is 'the original unity, the vital wholeness and identity, of the initiatory apprehension or view'.⁷¹ Rather than 'unity' and 'identity' in art being revealed in the 'pure thought' of music, Pater here associates them with 'mere

⁶⁴ Østermark-Johansen, 'Caught Between', p. 185.

⁶⁵ Nicolaas Rupke, *Richard Owen: Biology without Darwin*, revised edition (Chicago, IL: University of Chicago Press, 2009), p. 112.

⁶⁶ Quoted by Rupke, *Richard Owen*, p. 128.

⁶⁷ Rupke, *Richard Owen*, p. 126; Giovanni Camardi, 'Richard Owen, Morphology and Evolution', *Journal of the History of Biology*, 34 (2001), 481–515 (p. 502).

⁶⁸ Rupke, *Richard Owen*, p. 125.

⁶⁹ Østermark-Johansen, 'Caught Between', p. 184.

⁷⁰ Pater, *Appreciations*, p. 18.

⁷¹ Pater, *Appreciations*, p. 19.

form', the pure underlying structure of a work. This way of approaching art, with the whole in mind from the beginning, is, Pater argues, an 'architectural conception of work, which foresees the end in the beginning and never loses sight of it.'⁷² This 'architectural' approach to art, far from being merely mechanical or imitative, is indicative of 'the necessity of *mind* in style.'⁷³

The 'architectural' in art is also associated with potential. Good sculpture, he argues, is of the 'pregnant type'. This is the result of *Allgemeinheit*, which is the same as the force he discusses in *Plato and Platonism*, a 'generalising movement' which reduces 'all things to common types.'⁷⁴ Thus, he argues that 'Hellenic breadth and generality come of a culture minute, severe, constantly renewed, rectifying and concentrating its impressions into certain pregnant types.'⁷⁵ Sculpture should be 'pregnant with the possibilities of a whole world closed within it.'⁷⁶ Simplicity in sculpture is thus directly tied to the 'possibilities' that it contains. Here we are reminded of the 'single moment of vision' of the 'laymen' in *Plato and Platonism*, who experiences 'by a kind of short-hand' 'all that, which only a long experience, moving patiently from part to part, could exhaust.'⁷⁷ Sculpture is thus akin to the seed that Pater discusses in *Plato and Platonism*: 'What interest it has for us all lies in our sense of potential differentiation to come: the leaves, leaf upon leaf, the flowers, a thousand new seeds in turn.'⁷⁸ Sculpture is suggestive of more than it contains, as is the seed and the archetype. It thus marries materiality and immateriality. It is in this way that what is 'structural and permanent' can be 'like some subtle extract or essence, or almost like pure thoughts or ideas'. For Goethe, the archetypal phenomena, the underlying permanent structure, is the 'essence' of the thing, 'an essence of which the thing itself is an expression', as Vernon Pratt and Isis Brook explain.⁷⁹ It is thus through the model of the archetype and the ideas of transcendental morphology that the abstract and immaterial can be married to the concrete and material.

Østermark-Johansen argues that 'Pater reverses the conventional Hegelian hierarchy which moves from primitive tangible materiality towards the immateriality of poetry and music' in order to intermingle 'solid form and absolute formlessness.'⁸⁰ This is achieved, as I have demonstrated, by following the transcendental morphologists in their inversion of Platonism, which allows that which is most simple to simultaneously be that which is most ideal. Through this lens, language that *sounds* pejorative, like 'mere form', takes on positive connotations. Thus, in a discussion of the 'limitation' of sculpture, Pater argues:

But why should sculpture thus limit itself to pure form? Because by this limitation it becomes a perfect medium of expression for one peculiar motive of the imaginative intellect. It therefore renounces all those attributes of its material which do not help that motive . . . The very slightness of its material is part of its pride . . . it gains more than it loses by this limitation to its own distinguishing motives; it unveils man in the repose of his unchanging characteristics.⁸¹

⁷² Pater, *Appreciations*, p. 18.

⁷³ Pater, *Appreciations*, p. 18.

⁷⁴ Pater, *Plato and Platonism*, p. 139.

⁷⁵ Pater, *Renaissance*, p. 106.

⁷⁶ Pater, *Renaissance*, p. 109.

⁷⁷ Pater, *Plato and Platonism*, pp. 141–42.

⁷⁸ Pater, *Plato and Platonism*, p. 139.

⁷⁹ Goethe, 'The Metamorphosis of Plants', in *Scientific Studies*, p. 85; Vernon Pratt and Isis Brook, 'Goethe's Archetype and the Romantic Concept of the Self', *Studies in History and Philosophy of Science*, 27 (1996), 351–65 (p. 353).

⁸⁰ Østermark-Johansen, *Language*, p. 233.

⁸¹ Pater, *Renaissance*, p. 106.

'Limitations' are thus rebranded as positive attributes. This is strikingly similar language to that used in *Plato and Platonism*, which makes it clear that Pater conceives of sculpture in terms of the Platonic 'generalising movement'. Thus, sculpture 'gains' through this limitation to pure form, just as the garden 'has gained immeasurably in richness and compass, in fineness, and interest towards us, by the process, of [...] those acts of generalisation' and the sea-shell has 'been enriched by the whole colour and expression of the whole circumjacent world'. It is through the generalizing movement of an inverted Platonism, tied to the actual laws of the natural world, that the single object or single moment can be imbued with the 'whole world' or 'long experience'. Pater's association of the 'ideal' with the archetype – a simplistic plan that signals future potential – makes his comments about sculpture in 'Luca della Robbia' far clearer. We can thus return to the idea that sculpture is 'mere form', which initially seems to place it far from the 'ideal' of the fusion of form and spirit embodied in music. However, through ideas borrowed from naturphilosophie and transcendental morphology, Pater marries the material to the immaterial, conflates structure with design and artistic imagination, and thus suggests that sculpture is the archetype for the whole genus of art forms – perhaps the simplest, or most general, form, but embodying the full potential of all artistic vision.

5. CONCLUSION

It is evident that Pater sees the 'generalising movement' of his version of Platonism not as a metaphysical abstract but as a real attribute of the physical world, which is apparent equally in art as in the natural world. The work of both the natural historian and the art historian is to identify that generalizing movement and similar forces and to analyse their effects. Thus, when Pater compares the critic to the chemist, arguing that the work of the aesthetic critic is to analyse an 'impression' just as the chemist analyses some 'natural element', he is not simply using an attractive metaphor, employing the sciences only as an 'aesthetic spectacle', as Hext and others have argued. Instead, he positions aesthetic criticism and chemistry as homologous disciplines, each working, in its own way, to identify the 'powers or forces' active in the world.

DISCLOSURE STATEMENT

No potential conflict of interest was reported by the author.