THE AESTHETE AS A SCIENTIST: WALTER PATER AND NINETEENTH CENTURY SCIENCE

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Abstract

This paper explores the impact of nineteenth-century science on Victorian literature by examining the way Walter Pater, the father of British aestheticism, was influenced by it. Pater adopted the rhetoric of new science and incorporated a wide variety of scientific maxims in his work in order to modernize art and render it timely. This was symptomatic of his anxiety that the sweeping force of nineteenth-century science would render art obsolete. His response to this threat came in the form of a series of suggestions for the role of art and the artist, which eventually comprised a new aesthetic program, aestheticism. Drawing on a plethora of interconnections that scholars have over the past years detected between Pater and the science of his time, my aim in this study is to systematize the interrelationship that the Oxford don established between the scientist and the aesthete, and to explore the grounds on which this association was made. As I shall show, Pater drew on an ethical and a structural kinship between the nineteenth-century artistic movement and contemporary science in order to present the aesthete as a scientist. The implications of this kinship will be addressed as a means of accounting for the fact that aestheticism constitutes a short-lived artistic phenomenon, unable, in the long run, to respond to the call of the times.

The period from 1860 to 1900 was a time when scientific progress achieved a profound impact on the cultural imagination of the Victorians, becoming, as Robin Gilmour puts it, 'something of a national hobby'.1 Science became 'a hot subject...precisely because so much of cultural weight depended on how it was imagining the world'.2 Scientific development, through the works of Darwin, Tyndall, Huxley and Spencer, among others, did not only mark a radical shift in the way the layperson perceived the world, but it also compelled nearly all other disciplines to shift their focus as a means of tuning in to the new reality that modern science had brought to light.

One of the first who attempted to modernize art by accommodating the givens of scientific advance into his aesthetic speculation and literary practice was Walter Pater, the so-called father of British aestheticism who urged his contemporaries to lead their lives 'in the spirit of art'. In his effort to align art with the progressive forces of the 'brave new world', Pater transubstantiated science into an aesthetic ideal, as we shall see, coming up with a rationalized aesthetic form where the older, Romantic

¹ Robin Gilmour, *The Victorian Period: The Intellectual and Cultural Context of English Literature*, 1830-1890 (London: Longmans, 1993), p. 111.

² George Levine, 'Two Ways not to be a Solipsist: Art and Science, Pater and Pearson' in *Victorian Studies*, 43 (2000), 7-41, (p. 8).

role of the artist as a priest-like 'hierophant' was replaced by a vision of the artist as a scientist and artistic creation was replaced by a detached, ascetic and austere practice. It is my aim in this paper to explore the grounds on which Pater established such a peculiar interrelation, where the scientist and the aesthete joined hands, and the way it was ultimately presented in his work. Drawing on a plethora of interconnections between the British aesthete and the science of his time, I will examine the points of their paradoxical convergence in order to amplify and systematize this surprising correlation between the scientist and the aesthete and thus pave the way for the discussion of the implications of the aestheticism of science and the science of aestheticism.

Pater's first book, *Studies in the History of the Renaissance*, was released in 1873, but was compiled from a series of articles published from 1867 to 1871 in the *Westminster* and the *Fortnightly Review*. As Ian Fletcher argues 'in periodicals such as *The Fortnightly Review*, the troubled English mind struggled with competing loyalties to science and religion, to authority and "the free play of mind", reaching a remarkably articulate stage of self consciousness'.3 Pater's choice to publish his thoughts in the utilitarian *Westminster* and the scientifically oriented *Fortnightly* is indicative of his compliance with the progressive forces in their attempt to substitute a "modern" aesthetic compatible with the outcomes of new science for traditional beliefs. This compliance becomes explicitly manifested in the 'Conclusion' of the *Renaissance*, which forms in a very synoptic way Pater's early aestheticist manifesto.4

The 'Conclusion' actually consists of two parts. The first part employs a discourse that invokes the findings of contemporary science so as to discuss the recognition of fluidity in the physical world, whereas the second part employs the discourses of associationism, modern psychology and empirical skepticism to address the ethical consequences of such fluidity for the individual's thought. It comes then as no surprise that the 'Conclusion' has traditionally been read by Paterian critics along the lines of late nineteenth-century scientific development. Gerald Monsman, for example, argues that the real subject of the 'Conclusion' is not the Renaissance, but the ethical implications of new science,5 whereas F. C. McGrath affirms that 'in the middle of the nineteenth century [Pater] had already accepted the vision of humanity bequeathed by modern science' (p. 19).6 Since the "Conclusion," along with Pater's description of the Mona Lisa, has attracted the largest amount of critical attention among his works and is more or less widely known, I shall present it in sketch form, highlighting, nevertheless, the allusions to science that critics have so far detected in

³ Ian Fletcher, Walter Pater (London: Longmans, 1971), p. 6.

⁴ The ideas contained in it originally appeared in a sketchy form as the concluding paragraph of 'Poems by William Morris' (1868), one of Pater's first publications.

⁵ Gerald Monsman, Walter Pater (Boston: Twayne, 1977), p.57.

⁶ F. C. McGrath, *The Sensible Spirit: Walter Pater and the Modernist Paradigm* (Tampa: University of South Florida Press, 1986), p. 19.

order to demonstrate the extent to which Pater was implicated in the scientific project of his time.

In her influential survey, 'The Intellectual Context of Walter Pater's "Conclusion", Andrew Billie Inman claims that the 'Conclusion' employs in its first part a discourse delivered from contemporary science, as becomes evident by the direct reference to science in the text (which is Pater's imitation of the style of scientific demonstration as exemplified by Bacon and Tyndall) and its allusion to concepts developed by the most prominent biological scientists of the late 1860's on the 'physical basis of life, or the absence of any force but chemical forces in all of life's processes, including thought'.7 Inman also lists as crucial influences on the 'Conclusion' G. H. Lewes' article on the simplest, microscopic forms of organic life, the protoplasm and the constitution of every organic or inorganic object by the relation of its molecules, 'the relation of its substance to all surrounding objects' (quoted in Inman, p. 14), as well as Spencer's discussion of the constitution of organic matter by chemical elements.8 In a similar manner, Charles Blinderman in 'Huxley, Pater and Protoplasm' regards both Huxley's 'On the Physical Basis of Life', which was published in the Fortnightly Review in February 1869, and Pater's essay on William Morris, which formed the backbone of the 'Conclusion' and appeared in the Westminster Review in October 1868, as responses to the notion of protoplasm.9 Blinderman confirms that, displaying similar 'diction and figures'(p. 482), both writers agreed on the role of protoplasm as the physical basis of life, as the means of 'supplying a continuity among living things' (p. 480). Other scientific influences on the 'Conclusion', Inman continues, include Tyndall's 'On the Relations of Radiant Heat to Chemical Constitution, Colour, Texture', which appeared in the Fortnightly Review on 15th February 1866. As a matter of fact, Inman argues that Tyndall's experiments with flames, and especially an experiment with lightless rays, the convergence of which produced heat powerful enough to fuse even the most solid of metals, appears to be lurking beneath Pater's famous image of the 'gem-like flame'.10

⁷ Andrew Billie Inman, 'The Intellectual Context of Walter Pater's "Conclusion", in *Walter Pater: An Imaginative Sense of Fact*, ed. by Philip Dodd (London: Frank Cass and Company Limited, 1981), 39-54, (p. 14).

⁸ Inman refers to G. H. Lewes' 'Mr. Darwin's Hypotheses', published in the avant-garde *Fortnightly Review* 'at the beginning of the month in which Pater completed his review on Morris' in July 1868 (p. 14). Despite the fact that, as Inman herself admits, it is uncertain whether Pater read Lewes or Spencer, both Lewes' article and Spencer's *The Principles of Biology* (1864-67) expressed the idea that 'the physical constituents of the human body are constantly changing and that they are integral to a larger physical system' (p. 14).

⁹ A direct influence between the two thinkers cannot be established, as the chronology indicates. Nevertheless, as Blinderman argues, 'the two essays are very much alike in their articulation of the meaning of protoplasm'. See Charles S. Blinderman, 'Huxley, Pater, and Protoplasm', *Journal of the History of Ideas*, 43 (1982), 477-486, (p. 481).

¹⁰ Inman claims that it was this specific image of 'the flame at the focus of the pale rays' (p. 23) and its 'dazzling diamond-like limelight' (p. 24) which inspired Pater's image of the flame throughout his work, in 'Diaphaneite', in 'Rossetti', in *Plato and Platonism*, and concludes that 'the gem-like flame, thus, is associated with the white light, the perfect fusion of material and spiritual elements, the Dantean ecstasy' (p. 24). Inman considers the reason why Pater terms the image of the flame 'gem-like' and concludes that 'it is possible that Pater had conflated two images of flame described in Tyndall's essay' (p. 23), which reveals that the gem that Pater had in mind was the diamond – 'hard and radiant' (p. 24). Thus, 'the focus of the purest rays, the heat hot enough to fuse metals, and the dazzling diamond-like limelight gave him exactly the scientific, imagistic detail he could use to individualize his rather conventional general

Having elaborated on 'that which is without – our physical life', Pater turns in the second part of the 'Conclusion' to the 'inward world of thought and feeling' (p. 151) in order to address the psychological implications of the fluctuating reality that modern science depicts.11 He claims that reality seems to lose its objective touch when absorbed and then ramified by the individual mind; the solidity of external reality is unseated by a series of 'unstable, flickering, inconsistent' impressions, 'which burn and are extinguished with our consciousness of them', leaving each perceiving subject 'in his isolation, each mind keeping as a solitary prisoner its own dream of the world' (p. 151). It becomes obvious that the Oxford don is replicating here the then dominant tradition of scientific scepticism, where 'external phenomena' are reduced to 'possibilities of sensation', as Tyndall remarks, summarizing Mill's empiricism (p. 56).12 Jesse Matz also detects Hume's formulation of the impression and McGrath the philosopher's tenet of the subjectivity of knowledge (p. 7), whereas Ruth Child, in her turn, associates such relativism with Spencer's Principles of Psychology (1872), where the relativity of feelings was initially fully elaborated.13 In 'The Vocabulary of Pater's Criticism and the Psychology of Aesthetics', Ian Small, furthermore, argues that Pater adapted 'for his own special purposes' the discourse of the 1860s and 1870s British psychology, exposing the fact that psychology and literary criticism were then 'adjacent discourses'

(p. 84).14 After having established a correlation between Herbert Spencer, James Sully, Grant Allen and Pater, Small concludes his consideration with the way Alexander Bain's *The Emotions and the Will* (1859) might have influenced Pater, revealing that in his consideration of the psychological impact of the science on 'our physical life' Pater summed up the contemporary discourse of the emerging discipline of psychology.

It becomes evident through the numerous critics I have listed above that Pater was deeply influenced by contemporary science. One, however, might get easily confused here and jump to the conclusion that Pater was solely a passive recipient of scientific trends, which is definitely not the case. What I mean to say is that the critics mentioned above are right in bringing to our attention the extent to which Pater's work reflected the scientific advances of the time. Yet by considering Pater's relation

concepts' (p. 24).

¹¹ Walter Pater, The Renaissance: Studies in Art and Poetry (Oxford: Oxford University Press, 1985), p. 150.

¹² Consider here the striking similarity in tone and diction with Pater's illustration of scepticism and solipsism within an empirical context when Tyndall states that 'All we hear, and see, and touch and taste, and smell, are, it would be urged, mere variations of our own condition, beyond which, even to the extent of a hair's breadth, we cannot go. That anything answering to our impressions exists outside of ourselves is not *a fact*, but an *inference*, to which all validity would be denied by an idealist like Berkeley, or a sceptic like Hume'. See John Tyndall, *Address Delivered Before the British Association Assembled at Belfast, With Additions* (London: Longmans, Green, and Co., 1874), p. 57.

¹³ Jesse Matz, *Literary Impressionism and Modernist Aesthetics* (Cambridge: Cambridge University Press, 2001), p. 62; Ruth Child, *The Aesthetic of Walter Pater* (New York: Macmillan Co., 1940), p. 30.

¹⁴ Ian C. Small, 'The Vocabulary of Pater's Criticism and the Psychology of Aesthetics,' in *British Journal of Aesthetics*, 18 (1978), 81-87, (p. 81).

to science in the abstract terms of cultural influence and exchange they have failed to account for the specific grounds from which his preoccupation with science emerged. Drawing on their invaluable work, this is precisely the gap that my study aspires to fill by exploring the deeper reasons why Pater correlated art and science, which in turn will hopefully shed new light on his fascination with contemporary science and the aesthetic analogue it generated in his work.

We should not forget that being one of the most prominent aesthetes in Britain, Pater was not interested in science or psychology per se, but in the fate of art in the dawning of a modern world. Thus, it comes as no surprise that his manifesto in the 'Conclusion' culminates with the promotion of art as the ideal response towards the new reality that contemporary science had brought to light. It is the aesthetic dimension, art, 'the poetic passion, the desire of beauty, the love of art for its own sake' that is expected, he asserts, to deliver a "quickened" sense of life as a means of coming to grips with the "modern spirit', '[f]or art comes to you proposing frankly to give nothing but the highest quality to your moments as they pass, and simply for those moments' sake' (Renaissance, p. 153). Thus, it enables the subject to 'pass most swiftly from point to point, and be present always at the focus where the greatest number of vital forces unite in their purest energy' (Renaissance, p. 152). In his attempt to modernize art and attest its relevance Pater aligns it, through aestheticism, 'the love of art for its own sake', with the outcomes of physical science and its materialism as depicted in the first part of the 'Conclusion', and with sensationalism and relativism as illustrated in the second. This association examined above was not accidental but rather indicative of Pater's advocacy of a kinship between the artistic movement and the scientific developments of the late nineteenth-century.

In 'Intrinsic Earthliness: Science, Materialism and the Fleshy School of Poetry' Gowan Dawson regards both aestheticism and science as an overlapping between literary immorality and scientific materialism since both were considered to be 'conjoined manifestations of an amoral secularism, which according to their critics, urgently threatened Christianity and human civilization'.15 It is precisely because of this overlapping that Levine, in 'Two Ways not to be a Solipsist: Art and Science, Pater and Pearson', considers Pater as participating in the 'ethical project' of scientific epistemology (p. 13). The aestheticist discourse launched a fierce attack on Victorian morals through its formalistic preoccupations, which envisioned a form of art free from religious or utilitarian practices and through its implicit promotion of deviant sexual roles, whereas scientific progress at the time resulted in a relativization of traditional principles by providing a materialistic account of the world, which stripped it of its theological content. Nineteenth-century science and aestheticism were thus allied in their mutual appeal to freedom from social restraints and their common fight against traditional morals. Indicative of this 'conjoined' ethical cause

¹⁵ Gowan Dawson, 'Intrinsic Earthliness: Science, Materialism, and the Fleshy School of Poetry,' in *Victorian Poetry*, 41 (2003), 113-129, (p. 128).

was the fact that the 'Conclusion' triggered a great deal of controversy, to the extent that Pater was forced to reconsider and adjust some of the ideas originally contained in it, precisely because of its materialism and relativism which were of the very same nature as the ones that scientific discourse invoked.16 As the critic himself admitted in the *Renaissance*, he had applied 'the universality of natural law' not only to aesthetics, but to 'the moral order' as well (p. 148).

Dawson and Levine definitely pave the way for our understanding of the correlation between the aestheticist and the scientific programmes evident in Pater's work, yet highlighting the ethical compatibility between the aesthete and the scientist does not fully exhaust the issue. As I shall demonstrate next, the very historical period that Pater decided to focus on in his first book was a time when a series of artists and theorists like Leon Battista Alberti, Albrecht Dürer, and Leonardo da Vinci, to name but a few employed the sciences of mathematics, physics and anatomy in order to perfect the art of representation. Their insistence on art and science as forms of truth, was, in Pater's argument, indicative of their structural kinship. It is precisely through this structural kinship that we are able to account for the way the aesthete transubstantiated certain scientific givens into aesthetic maxims in his work. In this respect, throughout the Renaissance we are presented with a series of paradigms where art and science are structurally interrelated as forms of truth. Raphael is presented as an artist obsessed with knowledge, Winckelmann in his detachment and disinterestedness is illustrated as a scholar of scientific distinction, Giorgione's emphasis on technique so as to attain objectivity is aligned with the scientific paradigm and Pico, the scientist-humanist, is characterized by his obsessive pursuit of truth. Highly emblematic of this correlation between art and science is Pater's depiction of Leonardo da Vinci as the model of the artist-scientist. 'Leonardo' is very crucial for our consideration here because it further elucidates the grounds upon which Pater established such associations. In order to highlight this correlation I will employ Kant's account of the kinship between art and science, which I believe illuminates in a unique way Pater's model of the artist-scientist in the da Vinci essay.

It was Kant, in the *Critique of Judgement*, who first established an implicit relation between cognition and beauty on the grounds that in both instances the same mental faculties are involved.17 In cognition, according to Kant, imagination collects a given manifold and schematically presents it to understanding, which structures it through conceptualization into a unified whole. In judgements about the beautiful, on the other hand, imagination and understanding perform their tasks without being limited by a concept, they are in 'free play'; they are not guided by a determinate concept (p. 77). The mental state invoked here resembles that of cognition, since it

¹⁶ See for example Mrs. Oliphant's review of the *Renaissance* in *Walter Pater: The Critical Heritage*, ed. by R. M. Seiler (London: Routledge), 1995, (p. 91).

¹⁷ Judgements on beauty, for Kant, involve 'the mental state that we find in the relation between the presentational powers [imagination and understanding] insofar as they refer a given presentation to cognition in general'. See Immanuel Kant, *Critique of Judgment*, trans. by Werner Pluhar (Indianapolis: Hackett, 1987), pp. 61-2.

involves the cognitive faculties. Yet it does not employ a determinate concept that will ultimately lead to cognition, but instead a feeling of pleasure, since we feel that 'nature is systematically organized in a way that confronts to, or, in Kant's terms, is purposive for, our cognitive faculties'.18 In this sense, rational or scientific orderings possess, for Kant, certain aesthetic qualities (*Judgement*, p. 228), since aesthetic and scientific perception are deeply rooted in a common, a shared 'generic' origin that has to do with the fact that 'order, coherence and unity have the effect of integrating formal features into structures that give the impression of constituting unified wholes (or organic unities), which have great aesthetic appeal', as Gideon Engler puts it.19 Scientific research, likewise, Engler argues, exhibits a 'pattern organization usually made about activities of the mind with respect to art' (p. 208). Art and science, the subjective and the objective, are linked because of a common organizing perception of the world into ordered and coherent wholes, which is after all deeply aesthetic.

Taking these points into consideration, we can now return to Pater's 'Leonardo'. It becomes extremely hard in this essay to distinguish the scientific quest from the aesthetic. A tight analogy is established between science and art, since both are presented in a consummate Enlightenment *oeuvre*:

if we think of him as the mere reasoner who subjects design to anatomy, and composition to mathematical rules, we shall hardly have that impression which those around Leonardo received from him. Poring over his crucibles, making experiments with colour, trying, by a strange variation of the alchemist's dream, to discover the secret, not of an elixir to make man's natural life immortal, but of giving immortality to the subtlest and most delicate effects of painting, he seemed to them rather the sorcerer or the magician, possessed of curious secrets and a hidden knowledge, living in a world of which he alone possessed the key (*Renaissance*, p. 68).

Leonardo's scientific quest and his aesthetic experimentations comprised for Pater facets of the same, unique world that he occupied. In other words, Pater did not differentiate Leonardo's science from his art: he regarded them both as parts of the same project. But on what grounds was this profound coincidence established? Leonardo's scientific and artistic endeavours both involved, Pater asserts, his quest 'to

¹⁸ See Hannah Ginsborg, 'Reflective Judgement and Taste', in *NOUS*, 24 (1990), 63-78, (p. 63). In this sense, aesthetic judgements for Kant are a form of 'pseudo-knowledge', they employ the guise of knowledge (the cognitive faculties) but they do not yield to it, since we utilize our cognitive faculties as if we were cognizing. It is precisely this 'as if' structure that establishes an analogy between cognition and beauty in Kant's project. See Terry Eagleton, *The Ideology of the Aesthetic* (Oxford: Basil Blackwell Ltd., 1990), p. 75.

¹⁹ Gideon Engler, 'From Art and Science to Perception: The Role of Aesthetics', *Leonardo*, 27, (1994), 207-209, (p. 207).

discover the secret'...the 'hidden knowledge', they both signified the pursuit of the hidden interconnectedness beneath an apparent discordance; they were both organized by the pursuit of what Huxley called 'the rational order that permeates the universe' (quoted in Gilmour p. 13). It was from nature, 'the true mistress of higher intelligences'(*Renaissance*, p. 66), Pater argues, that Leonardo learned 'the art of going deep, of tracking the sources of expression to their subtlest retreats, the power of an intimate presence in the things he handled', not only anticipating 'modern mechanics' (pp. 66-67) and 'the later ideas of science' (p. 70) but also expanding 'the destiny of Italian art by a larger knowledge and insight into things' (p. 65). Brooding 'over the hidden virtues of plants and crystals, the lines traced by the stars as they moved in the sky, over the correspondences which exist between the different orders of living things, through which, to eyes opened, they interpret each other' (p. 66),

Leonardo, who was 'always so desirous of beauty' (p. 82), turned his quest for a 'rigid order' (p. 68) into magnificent works of art. It was the beauty of a rational order discovered that eventually resulted in Leonardo's establishment of an organic interconnection between science and art. Pater is here in full accordance with Kant's position, where the illuminated alchemist-painter transubstantiated scientific quest into 'the most delicate effects of painting', into artistic perfection. As both a scientist and an artist, Leonardo, thus, emblematically stands for the common ground, the 'correspondences' that exist between science and art, which amount to the aesthetic appeal that stems from the ordering of the mass of experience into coherent rational wholes, into Logos.20 By bringing together 'curiosity and the desire of beauty' (p. 70), Leonardo eventually managed to create 'that larger vision of the opening world' (p. 72), in which the unifying force of Logos brought together the art of science and the science of art, where, in its quest for the non-apparent cause and scheme of things, science is joined by the aesthetic expedition to encapsulate the true meaning in the world without distortion.

Drawing on this ethical and structural compatibility with the scientific project, Pater moved on to turn certain scientific tenets into aesthetic ideals or criteria, which resulted in a profound rationalization of his artistic goals. In contrast to Matthew Arnold, who in 'Literature and Science' (1882) sceptically declared that science failed to deliver 'the sense in us for conduct, and the sense in us for beauty', Pater wholeheartedly embraced the ethical implications of the new science in the spirit of Bertrand Russell's *A Free Man's Worship* (1903) and Anatole France's *Le Jardin d'Épicure* (1894), as Helen Wadsworth Young stresses (p. 33), and integrated it into his aesthetic agenda.21 He brought together, to employ Arnold's phrasing, 'the knowledge of things' with 'the knowledge of words' (p. 1550), associating literature,

²⁰ We can detect here Baudelaire's influence on Pater.

²¹ Matthew Arnold, 'Literature and Science', in The Norton Anthology of English Literature, Vol. II, 7th edition, ed. by

M. H. Abrams (New York: W. W. Norton & Co., 2000), 1545-58, (p. 1558); Helen Wadsworth Young, *The Writings of Walter Pater: A Reflection of British Philosophical Opinion from 1860 to 1890* (Lancaster, Pa: Lancaster Press, 1933; rptd., New York: Haskell House, 1965), p. 33.

and by implication art, with science. Accordingly, for Pater, the function of the aesthetic critic

is to distinguish, to analyze, and separate from its adjuncts, the virtue by which a picture, a landscape, a fair personality in life or in a book, produces this special impression of beauty or pleasure, to indicate what the source of that impression is, and under what conditions it is experienced. His end is reached when he has disengaged that virtue, and noted it, as a chemist notes some natural element, for himself and others (*Renaissance*, p. xxx).

The critic, as stated in the 'Preface' to the Renaissance and argued for throughout the book, must, in the spirit of a chemist, look for the 'formula' of the artist he studies through a process of strategic condensation.22 In his quest for the 'formula' the critic proceeds inductively so as to capture an objective ground that sums up the artistic oeuvre itself. Thus, 'in its emphasis on analysis into simples' (Young, p. 20), its underlining of analytic discrimination on the critic's part, its highlighting of 'fact', the *Renaissance* harmoniously brings together the fundamental premises of the 'science of things' with the 'science of words'.23 Such union is furthermore explicitly celebrated in 'On Style' (1888), where Pater establishes in the fashion of Baconian objectivity certain restrictive tenets for the artist and the scholar. For Pater, both artists and critics have to conform to certain rules that are nevertheless borrowed from scientific discourse: 'Exclusiones debitae - the exclusions, or rejections, which nature demands – we know how large a part these play, according to Bacon, in the science of man'.24 The art of the scholar, very much like the scientist, 'is summed up in the observance of those rejections demanded by the nature of his medium, the material he must use' (Appreciations, p. 5). Such restrictions are promoted as a means of amplifying expression, 'that absolute accordance of expression to idea' (Appreciations, p. 15), where scientific precision is applied to the quest for the most suitable word as a means of attaining efficient textual economy and perfecting artistic form.25

^{22 &#}x27;To define beauty, not in the most abstract but in the most concrete terms possible, to find, not its universal formula, but the formula which expresses most adequately this or that special manifestation of it, is the aim of the true student of aesthetics' (p. xxix). In this way, Michelangelo's essence is captured by his combination of 'strength and sweetness', Winckelmann's 'formula' coincides with his Greek temperament, Joachim du Bellay encapsulates the Italian influence on French taste, Giorgione the Venetian school of painting, Leonardo a return to nature and Pico the reconciliation of Christianity with Greek paganism.

²³ The critic is urged to proceed with 'facts' since 'as in the study of light, of morals, of number, one must realize such primary data for one's self, or not at all' (p. xxix).

²⁴ Walter Pater, Appreciations, With An Essay on Style (London: Macmillan, 1910), p. 4.

²⁵ In terms of 'art and poetry' the aesthetic critic is urged to 'discriminate between what is more and what is less excellent in them, or to use words like beauty, excellence, art, poetry, with a more precise meaning than they would otherwise have' (*Renaissance*, p. xxx). Furthermore, Pater claims that 'to define beauty, not in the most abstract but in

Levine examines the impact of nineteenth-century science on art and establishes a relation between the positivist Karl Pearson and Pater on the grounds that 'both aestheticism and positivism are deeply rooted in empiricism' (p. 14). According to Levine, the epistemological tradition of empiricism that both thinkers drew on in their pursuit of knowledge led to certain 'constraints' as fundamental prerequisites of knowledge, which were part of a wider 'ascetic tradition' (p. 14). This tradition is defined in terms of 'an austere, rigorous restraint of the self that, from the basis of an inevitable subjectivity, issued in an impersonality that opened both to art and to truth' (p. 16). The 'ascetic tradition' of the restraint on the self is considered by Levine as the strategic means of overcoming the threat of solipsism and establishing the impersonal objective vigour of the scientific in both art and science. The consequences of ascetic discipline, Levine argues, 'produce an aesthetic analogue of objectivity - a firm, even a "gem-like" reality that is not merely subjective, that allows the perceiver to stand outside the flux he is describing, if only in order to describe it' (p. 14). In light, thus, of Pater's emphasis on 'love of art for its own sake' and on ascesis, self-restraint, renunciation and careful selection, it becomes easy to see that the 'aesthetic analogue of objectivity', which Levine mentions, in essence involves an analogy between scientific distance and aesthetic disinterestedness. This was the cornerstone of the short-lived tradition of decadent aesthetes: men like Wilde, Beardsley and Dawson.26 Levine's brilliant consideration could have been deeply enriched by the awareness that Pater associated aestheticism with empiricism and utilised art in his pursuit of knowledge, precisely because of the structural kinship between art and science, which was the theoretical device through which he was able to convert scientific tenets into aesthetic ideals.

Accordingly, the ascetic discipline of an artist or a scholar is considered by Pater as an aesthetic achievement in itself:

[s]elf-restraint, a skilful economy of means, ascesis, that too has a beauty of its own; and for the reader supposed there will be an aesthetic satisfaction in that frugal closeness of style which makes the most of a word, in the exaction from every sentence of a precise relief, in the just spacing out of word to thought, in the logically filled space connected always with the delightful sense of difficulty overcome (*Appreciations*, pp. 6-7).

It is exactly in this sense that Pater detected in Heraclitus's natural philosophy 'a

the most concrete terms possible, to find, not its universal formula, but the formula which expresses most adequately this or that special manifestation of it, is the aim of the true student of aesthetics' (p. xxx).

²⁶ Even though Pater's writings carry in embryonic form the seeds for such a decadent development, Pater himself was not interested in social rupture but in unfolding his politics of accord.

poetic beauty in mere clearness of thought, the actually aesthetic charm of a cold austerity of mind; as if the kinship of that to the clearness of physical light were something more than a figure of speech'.27

The emphasis here on the 'aesthetic charm' of 'clearness' and 'light' touches the core of Pater's aesthetics, his promotion of an ascetic form of induction, termed 'eager observation' (p. 152) in the 'Conclusion', which is also tightly linked to the principle of ascesis. Continuing with the long sequence of associations that critics have established between the fundamental premises of Pater's aesthetics and nineteenth-century science, I would like to return to Levine, who relates Pater's emphasis on observation to a very influential scientific breakthrough. Levine argues that this 'eager observation' highlights the aesthetic espousing of Darwinian 'gradualism' but also the 'historicist implications' of 'the necessity to consider one's location as observer in space and time' (p. 16). Darwinian evolution, as we know, decisively elongated the human perspective, rendering the amplification of observation an indisputable necessity, so that the subject would firmly ground its historical presence within a now exceedingly widened spectrum, full of scattered visual signs coming from its long historical course that only a trained eye would be able to detect and, thus, reassert its present position in terms of a gradually emerging past.28 Darwin's constant appeal to a highly trained form of observation as means of overcoming the difficulties of the geological record exemplifies this. Likewise, the ascetic moulding of the sensory apparatus, particularly the capacity for observation, becomes of foremost importance for Pater as a novel faculty of truth for the subject, manifesting once again what Levine leaves out of his consideration, the structural analogies that he established between art and science. In this sense, by regarding the world as a field pregnant with a hidden meaning waiting to be interpreted, the aesthete and the scientist join hands in their optimization of an optics of decoding as an instrument of realistic explanation. Indicative of this implicit affiliation between Darwinism and aestheticism, through their shared preoccupation with vision, which eventually resulted in a form of corporeality, sensualism and sensationalism, is the fact that they both historically prepared the grounds for the emergence of Decadence.29

Pater's prominent notion of aesthetic selection can be considered under the prism of evolutionary theory. The role of selection derives its significance not only from its affiliation with ascesis and scientific objectivity, as we have seen, but also

²⁷ Walter Pater, *Marius the Epicurean: His Sensations and Ideas* (London: The Soho Book Company, 1985), p. 124. 28 As Levine states in another essay, 'the only special power that Darwin attributes to himself in his autobiography is the power of observation; through observation, natural selection conducts experiments and after much trial and error selects variations that will serve the ends of the species'. See George Levine, 'By Knowledge Possessed: Darwin, Nature, and Victorian Narrative', in *New Literary History* (1993) 363-391, (p. 383).

²⁹ Blinderman notes that 'Darwinism, I believe, was part of the network of ideas leading to the full expression of Decadence. It did appear, at least, to emphasize the animal resident in the human being. It did help corrode traditional religion. And if our relationship to each other is essentially that of protoplasmic machines, then the model for sexual engagement could well be that of predator and prey', pp. 485-86.

from the fact that it is presented as a life-giving principle, since the critic or the artist, in the manner of Botticelli 'plays fast and loose with...data, rejecting some and isolating others, and always combining them anew' (Renaissance, p. 35). In view of this structural kinship between art and science I want to argue here that aesthetic choice and the 'new combinations' it achieves can be seen as his cultural equivalent of the highly influential Darwinian principle of 'selection', and consequently of 'natural selection'. In The Origin of Species (1859) Darwin starts his exploration with the strategies that domestic breeders employ, with 'man's power of accumulative selection: [where] nature gives successive variations [and] man adds them up in certain directions useful to him. In this sense, he may be said to make for himself useful breeds'.30 Moreover, Darwin admits that 'breeders habitually speak of an animal's organization as something quite plastic, which they can model almost as they please' (p. 90). Man's power to 'adapt organic beings to his own uses', however, is contrasted to 'Natural Selection', which 'is a power incessantly ready for action, and is immeasurably superior to man's feeble efforts' (p. 115).31 Being a synonym for the struggle for existence, natural selection denotes that 'any being, if it vary however slightly in any manner profitable to itself, under the complex and sometimes varying conditions of life, will have a better chance of surviving, and thus be naturally *selected*' (p. 68).

What is important for our consideration here is the fact that the notion of selection, in its plasticity as a moulding force, being a replication of the more powerful and extensive force of natural selection, actually bears a firm artistic undercurrent, where man seems to reproduce to his advantage nature's ways. The artist's, or the critic's, careful selection of words as a means of perfecting form and creating new meaning can be seen here as analogous to the organic sway of selection in its ability to fortify the form of the species in the evolutionary scheme. Drawing on this analogy, Pater seems to echo the Darwinian paradigm in his quest to establish an enhanced literary medium 'for the modern spirit', a form of narrative that will endure the conflicting strains of his time. Thus, aesthetic choice for Pater replicates natural selection as an economy of survival.32

The specific narrative form that Pater actually singles out as the appropriate response to the 'modern spirit' is that of the essay. Pater provides the reader with a justification of his selected medium through a self-reflexive reference to the form of his writing, which establishes a meta-narrative implicit in his texts, facilitating our understanding of his choice. In *Plato and Platonism* (1893), the critic refers in a

³⁰ Charles Darwin, The Origin of the Species by Means of Natural Selection, or The Preservation of Favoured Races in the Struggle for Life. ed. by J. W. Burrow (London: Penguin, 1985), p. 90.

³¹ For the differences between selection and natural selection see Darwin, pp. 132-33.

³² We have seen that in 'On Style' Pater more or less considers the concept of selection in economic terms. As is well known, Darwin himself admits that he had been influenced by Malthus in his formulation of natural selection. Struggle for existence is actually 'the doctrine of Malthus applied to the whole animal and vegetable kingdoms' (p. 68). In this sense, overpopulation leads to a harsh struggle for food supplies, which inevitably results in the fact that that only those individuals who are naturally selected can survive and propagate.

Hegelian fashion to three different intellectual traditions of 'composition', three different literary methods throughout history: 'the poem, the treatise, the essay'.33 Interestingly enough, Pater considers these three methods as 'no mere accidents...but necessities of literary form, determined directly by matter, as corresponding to three essentially different ways in which the human mind relates itself to truth' (p. 175). Thus, 'the poem', responds to an age when 'philosophy was still a matter of intuition, imaginative, sanguine, often turbid or obscure' (p. 174). 'The treatise' refers to a time 'when native intuition had shrunk into dogmatic system, the dry bones of which rattle in one's ears', whereas 'the essay', Pater's favourite, stands 'midway between those opposites' (p. 174). His justification for the appropriate form of writing is further on elaborated in 'On Style' (1888), where the critic also considers that 'midway' between poetry and the treatise, now termed 'imaginative prose', to be 'the special art of the modern world' (*Appreciations*, p. 4).

The explanation that Pater gives for this preference has firstly to do with the fact that the 'chaotic variety and complexity' of intellectual issues render all restraints quite useless, as reflected in the 'lawless verse of the nineteenth century', and secondly that current 'naturalism' involves 'a certain humility of attitude', moving towards 'the less ambitious forms of literature' (*Appreciations*, p. 4). Thus, Pater's corroboration of his favoured medium, the essay, revolves around two arguments: its privileged 'midway' position between extremes, and the fact that it is considered as the most suitable response to the 'naturalistic' call of the times. A closer look at Pater's argumentation, nevertheless, reveals that both concepts implicitly invoke a scientific discourse, revealing, once again, Pater's profound transfiguration of contemporary science into aesthetic criteria.

Standing 'in-between' the inclusive oral tradition of poetry and the closed form of a rigorous discourse, the essay is favoured by Pater as a balanced medium that mediates between two oppositional poles bringing them together into a single whole. The prominent notions here of mediation, of hybridism, of a balanced struggle between different forms, firmly suggest an undercurrent of cultural Darwinism. Just like Darwin, who undermined the idea of clear-cut, stable, distinct species, and through the notion of hybridism was able to depict how certain traits as environmental mechanisms of defence are transported or developed into various species throughout time, Pater envisions, through a diachronic discourse, a crossgeneric reciprocity between genres that enforces the vitalism of each genre, or of the essay itself, as a means of transcending their shortcomings.34 The essay presents us

³³ Walter Pater, Plato and Platonism: A Series of Lectures (New York: Greenwood Press, 1969), p. 175.

^{34 &#}x27;[T]he species of the large genera are related to each other, in the same manner as the varieties of any one species are related to each other. No naturalist pretends that all the species of a genus are equally distinct from each other; they may generally be divided into sub-genera, or sections, or lesser groups' (Darwin, p. 112). Furthermore, 'the belief that species were immutable productions was almost unavoidable as long as the history of the world was thought to be of short duration' (p. 452). '[N]amely, that the vigour and fertility of all organic beings are increased by slight changes in their conditions of life, and that the offspring of slightly modified forms of varieties acquire from being crossed increased vigour and fertility' (p. 437). 'Natural selection will tend to modify all the individuals of a varying species throughout

with an evolved version of prior forms, where the biological principle of hybridism is transformed by Pater into literary form, rendering the critic able to infuse his promoted medium with the force of an organic vitalism and to articulate his aesthetic considerations through a discourse with powerful contemporary currency. In this sense, the genres, and by implication the essay as the form of mediation, very much in the spirit of the species, are connected not only because they share certain characteristics, but mainly because they share an organic response to their needs, which leads to survival through adaptation to environmental stimuli and the inheritance of the most enhanced traits. The benefits implicit in the amalgamation of divergent characteristics in the form of hybrids is actually the topic of the *Renaissance* itself, where Pater states that

in its special mode of handling its given material, each art may be observed to pass into the condition of some other art, by what the German critics term an *Anders-streben* – a partial alienation from its own limitations, through which the arts are able, not indeed to supply the place of each other, but reciprocally to lend each other new forces (p. 85).35

In Pater's preferred form of expression we can nevertheless detect yet another undercurrent, which again involves the structural correspondences he drew between art and science, what the critic terms as the spirit of 'relativity' (*Plato*, p. 175). There is no space, according to Pater, for fixed absolutes in these 'modern' times but only for reconciliatory relatives. Even 'beauty' is rendered according to the scientific spirit as 'relative' (*Renaissance*, p. xxx). Relativity, for Pater, is ideally reflected in the form of the essay, which best suits a mind 'for which truth itself is but a possibility, realizable not as a general conclusion, but rather as the elusive effect of a particular personal experience' (*Plato*, p. 175). The scepticism invoked here involves the condition of 'suspension' of judgment, a form of 'receptivity' as the 'salt of truth, even in the most absolutely ascertained knowledge' (p. 196) that the form of the essay

the area in the same manner in relation to the same conditions' (p. 149).

³⁵ Pater then proceeds with a long list of artistic forms that actually benefit from their hybrid character: '[t]hus, some of the most delightful music seems to be always approaching to figure, to pictorial definition. Architecture, again, though it has its own laws – laws esoteric enough, as the true architect knows only too well – yet sometimes aims at fulfilling the conditions of a picture, as in the *Arena* chapel; or of sculpture, as in the flawless unity of Gioto's tower in Florence; and often finds a true poetry, as in those strangely twisted staircases of the *chateaux* of the country of the Loire, as if it were intended that among their odd turnings the actors in a theatrical mode of life might pass each other unseen; there being a poetry also of memory and of the mere effect of time, by which architecture often profits greatly. Thus, again, sculpture aspires out of the hard limitation of pure form towards colour, or its equivalent; poetry also, in many ways, finding guidance from the other arts, the analogy between a Greek tragedy and a work of Greek sculpture, between a sonnet and a relief, of French poetry generally with the art of engraving, being more than mere figures of speech' (pp. 85-86). Pater's obsession with historical periods of transition, which can themselves be considered historical hybrids in the sense that they harmoniously bring together the traits of a prior and an emergent tradition, can also be seen as reminiscent of this Darwinian hybridism.

promotes through the endless succession of arguments that are not forced to reach a conclusion.36 It is interesting to note here that in its dialectical, its relative attitude towards truth, the essay seems to be 'mimicking Darwin's fact-finding voyage toward an unknown origin' as the paradigmatic form that captures the 'perpetual conflict of ideas, which is the highest form of the struggle for existence', in David Ritchie's words.37 Accordingly, throughout Pater's discussion, the essay form is presented in the imagery of a journey (Plato, pp. 175, 178, 184), a process (Plato, pp. 179, 188, 192), juxtaposed to the exactness of mathematical reasoning (Plato, p. 179) or the 'absolute and eternal' (Plato, p. 187), putting one into a 'receptive attitude towards such possible truth [since] it does not provide a proposition, nor a system of propositions, but forms a temper' (Plato, p. 188). It is precisely because of this pervasive relative character that the essay is singled out as 'the characteristic type of our own time, a time so rich and various in special apprehensions of truth, so tentative and dubious in its sense of their ensemble, and issues' (Plato, p. 174). In this structural association, Pater establishes a nearly modernistic interrelation between relativistic content and relativistic form, where 'the very form belongs to, is of the organism of, the matter which it embodies' (Plato, p. 176). It is said to be 'coextensive with life' (Plato, p. 188) as the appropriate means for the 'modern spirit' of conveying 'the subtlety, complexity, flexibility and fugitive nature of experience' (McGrath, pp. 29-30) that the scientific world-picture has brought about.

As we have seen throughout this study, Pater's work provides fertile ground for establishing a plethora of correspondences with contemporary science, which range from the notion of protoplasm to evolutionary theory and from the ethical ramifications of science to the basic premises that constitute the quintessence of scientific discourse. These correspondences, as I have shown, primarily derive from Pater's belief that art and science share a common generic origin, which eventually enabled him to hybridise his conception of art. Contrary to the stereotypical image of the aesthete who is locked in his Ivory Tower obsessed with his disinterested art, Pater, the father of British aestheticism, adopted the rhetoric of science by opening himself up to the call of the times, absorbing into his aesthetic agenda a series of

³⁶ Lene Østermark-Johansen argues that Pater's obsession with flux was evident through the fact that the Victorian critic transfigured the Renaissance artistic devices of the '*figura serpentinata*' and the '*contraposto*' into 'a literary style' that relies on 'antithesis and inner dialectics', which to a large extent encapsulates Pater's conception of the medium of the essay. See Lene Østermark-Johansen, 'Serpentine Rivers and Serpentine Thought: Flux and Movement in Walter Pater's Leonardo Essay', *Victorian Literature and Culture*, 30 (2002), 455-482, (p. 457).

³⁷ Alison Booth, 'The Author of the Authoress of the Odyssey: Samuel Butler as Paterian Critic', *Studies in English Literature*, *1500-1900*, 25 (1985) 865-883, (p. 865); Ritchie, in 1893, implicitly alludes to Darwin through a discourse that constantly invokes the scientist so as to promote an appropriate form of thought for the 'modern spirit':'[t]he great constructive philosophers seem indeed to gather up into their thought all the elements that existed scattered in preceding systems; but the time comes when a new criticism and then a new reconstruction are needed, if philosophy is to remain living and not to be fossilized in a traditional dogma. "Let us follow whithersoever the argument leads us"; and, if we do not let ourselves become "misologists", we must hold fast this Athenian faith in the value of the perpetual conflict of ideas, which is the highest form of the struggle for existence'. See David Ritchie, *Darwin and Hegel: with other philosophical studies* (London: Swan Sonnenschein & Co., 1893), p. 65.

scientific tenets, in order to modernize art and make it timely and relevant, contributing, thus, to the 'spirit of the age', as Mill would have defined it. Such amalgamation was actually symptomatic of Pater's anxiety that the sweeping force of scientific advent and the new reality it brought about would eventually render art obsolete. The critic's answer to this threat came in the form of a series of suggestions for the role of art and the artist, which, in their turn, comprised a new aesthetic program, aestheticism.

Pater's promotion on the one hand of a moral agenda that was affiliated with that of the new science on the grounds of their common appeal to freedom, and his underscoring of a structural kinship between the two world views on the other, reveals that his argument was deeply influenced by the Kantian tradition. Kant's three Critiques involved exactly the same argument as the one Pater's work implies, in the sense that the German philosopher highlighted the role of art in his third *Critique* as the mediating principle between knowing the world (first *Critique*) and enjoying our freedom on it (second *Critique*). In this respect, despite its modernizing guise and its rationalizing effort, Pater's *oeuvre* was in effect deeply Romantic and to a certain extent, unfortunately, outdated. This was precisely why the aesthete and the scientist went separate ways. Regardless of his affiliation with scientific practice, the aesthete was eventually rendered, because of his close association with art, as the effeminate other of the vigorous scientist: a figure who still clung to the past and was consequently doomed, in a world fascinated with novelty, to decadence.

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