

## Real Presences: Two Scientists' Response to George Steiner

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*Real Presences*<sup>1</sup> is Steiner's personal manifesto against the deconstruction movement in modern literature (and art and music). It is not a book that many scientists would read, let alone re-read. And yet we have read and re-read the book; it has made us laugh and cry. Why? This essay is a first attempt at articulating the shock of relevance two scientists felt after their encounter with this remarkable book.

### I

*Real Presences* is evidently born out of pain (one reviewer calls it a 'vulnerable' book), the pain that Steiner feels deeply in the face of modern deconstructive movements in literature, with their palpable repulse of meaning. Peering over the abyss of linguistic meaninglessness which is our 'age of the epilogue' (the 'after-Word'), Steiner affirms his belief that the *logos* is meaningful, and that it is meaningful because it is 'underwritten' by (at least a wager on) the presence of God.

In contrast to the pain he felt, Steiner asserted recently<sup>2</sup> that 'doing first-class science or technology is, visibly, enormous fun ... it is brimful of laughter and sun-rise'. We agree, but in part, because in our experience the 'fun' is accompanied by pain; it is brimful of tears and dark shadows as well as 'laughter and sun-rise'. The shock of relevance we feel upon reading *Real Presences* is twofold: first, that the pain Steiner the literary critic expresses closely parallels the darker side of our experiences as scientists; secondly, that his suggestions for seeking a way 'out of the house of mirrors which is that of modernist theory and practice' (141)<sup>3</sup> have tantalising resonances with our mental map for a science that hurts less. To find such parallel perceptions is both astonishing and hopeful; astonishing, because the parallels were surely unintended (Steiner repeatedly states that his comments should be *inapplicable* to the sciences), and hopeful, because they suggest that

meeting at the place of pain may yet prove to be a source of *rapprochement* across the yawning (and painful) chasm between the ‘Two Cultures’ - a practical *theologia crucis* for cultural reconciliation.

## II

In Part 1 of his book, entitled ‘A Secondary City’, Steiner laments the ‘Byzantine dominion of secondary and parasitic discourse over immediacy, of the critical over the creative’ (38) in today’s cultural landscape, whereby we are insulated ‘from direct encounter with the “real presence” or the “real absence of that presence” ... which an answerable experience of the aesthetic must enforce on us’. (39) (For Steiner, ‘culture’ is ‘literature, art and music’ - an irritating pair of blinkers which we are perpetually restrained from removing.) The resonances with felt pain in the present practice of science are immediate: for science today is also dominated by a culture of the secondary. Few progress to the level of the textbook. Those who do find no room for creative manoeuvre; science consists, for them, of received interpretation and problem-solving. The awe-inspiring contact with primary creation which is the grappling with observation and theory is kept at a safe distance. In parallel to this, there has been an enormous and quite unprecedented explosion of scientific publication in very recent times. Much of this is routine and mediocre, and smells similarly of the secondary.

Steiner described the dominant metaphysic of the age as ‘journalistic’, a metaphysic which confuses ‘interesting’ with ‘significant’. This description finds an urgent echo in the world of politicised science. The five scientific research councils in the UK now routinely talk in terms of ‘business plans’, and subscribe to overtly utilitarian ‘mission statements’ which talk of ‘enhancing ... competitiveness and quality of life’ (narrowly, that is to say, economically, defined).<sup>4</sup> Much of this smacks of ‘spurious temporality’ (26): ‘the utmost beauty or terror are shredded at the close of

day. We are made whole again, and expectant, in time for the morning edition' (27); or, indeed, the next round of grant applications.

Part 1 contains Steiner's dream of 'a society ... of the primary' (6) dedicated to the creation of primary texts, paintings and compositions and their public or private 'performance' (concerts, poetry reading, encountering art work), however amateur or 'professional'. We too dream of 'a society of the primary', where physical and biological phenomena are once more sources of wonderment and questioning (as they were in the conclusion to *Job*), where every experience of insight ('Aha, *that's* why the moon shows phases. '), however trivial in the eyes of the 'professionals', is valued more than the mere recall (the 'Master Mind' syndrome) or mechanical manipulation of knowledge. The parallels of analysis and aspiration suggest to us that these two visions, Steiner's and ours, are ultimately one and the same.

### III

In Part 2, 'The Broken Contract', Steiner shows how since the late 19th century, the 'contract' (93) between *logos* and *kosmos* has lain broken. Before this, 'semantic trust' (91) underwrote every utterance. For Steiner, this breaking of the contract is complete with the coming of the modern deconstruction movement, in which words no longer refer to *anything*; instead 'what words refer to are [merely] other words', and 'the truth of the word is the absence of the world'. (96-97) Here, the painful resonances with the present condition of science are almost spelt out for us by Steiner, when he places deconstruction within an 'encompassing background of the crisis of the word' (115) in the modern world, where 'larger and larger domains of discovery, of scientific theory, of productive technological appliance have passed out of reach of verbal articulation and of alphabetic notation' (114); 'at the heart of futurity lies (*sic.*) the "byte" and the number' (115), not the word. Earlier, in a 1961 essay<sup>5</sup> 'The Retreat from the Word', Steiner suggested that the 'unspeakability'

of modern science was inevitable, quoting the physicist (and atomic bomb builder) J. Robert Oppenheimer as his authority.

That there is wordlessness in the practice of science today is not in doubt. On the one hand, there is manifest mutual incomprehension due to increasing specialisation. The rush towards mathematicization by many disciplines, in conscious or unconscious imitation of physics, plunges science across the board into further 'unspeakability'. On the other hand, there is the infamous inarticulateness of scientists (with notable exceptions). Both manifestations of scientific wordlessness widen the chasm between the 'Two Cultures'. Wordsworth's prophecy that in the future, science would inspire the sonnets and stanzas of reflection<sup>6</sup> has simply not come true.

We feel such scientific wordlessness confines and diminishes our humanity, and belittles the humanity of those to whom we have fallen silent. We cannot agree with Oppenheimer that any attempt at 'speaking' theoretical physics is ultimately an illusion. Meanwhile, the scientific retreat from the word goes some way towards explaining why the public perception of science is fearful, shallow, inaccurate and utilitarian. Much criticism of the decisive role of science<sup>7</sup> is based on a view of the culture which is palpably wrong when seen from the 'inside'. An inarticulate science lays itself bare to painful misrepresentation: the primary felt activity of questioning is eclipsed by a demand for answers, puzzles by solutions, creativity by control.

Part 2 contains a trenchant discussion of the role of 'theory'. For Steiner, critical theories are '*narratives of formal experience*'; they 'tell stories of thought'. (86) In the age of the 'epilogue' (after-Word), however, critical theory, apparently in conscious '*imitatio* of scientific theory', makes 'prepotent claims to abstract universality' (74) and to general powers of prediction, and 'exalts [itself] above the facts of creation'. (87) But what kind of 'scientific theory' did Steiner have in mind? It is certainly not the kind with which we are familiar from our own work and from our reading of scientific history. There are indeed narrow areas of physical theory today which make 'prepotent claims to abstract universality', and talk of 'dreams of a final theory'.<sup>8</sup>

Intriguingly these are those areas of science which are most heavily mathematicized. But our mental picture of a main-stream scientific theory is well described in precisely those terms in which Steiner uses to describe the main stream of Western critical theory. The ‘encircling acts of argument’ (77) which we call scientific theories are, fundamentally, narratives (where the insistent reference to *words* is of the essence); they indeed ‘recount ... moments of meeting between intellection and created form, a meeting whose source ... is always intuitive’. (77) For us, a theory is a *descriptive explication* of that magical moment of ‘Aha!’. All of this has been painfully obscured by the wordlessness at the core of modern science.

#### IV

The weight of pain felt by Steiner by the end of Part 2 of *Real Presences* is almost unbearable. In the midst of the encircling darkness of deconstruction, he seeks a way out. Part 3 of the book, entitled ‘Presences’, starts with a bold positive assertion: ‘There is language, there is art, because there is “the other”’. (137) He based this assertion on the observation that ‘the experiencing of created form is a meeting between freedoms’, (152) between the freedom of creation - ‘the poem, the sonata, the painting, could very well *not* be’, (152) and the freedom of reception - ‘we are utterly free not to receive ... [when we are] face to face with the presence of offered meaning’, (152-3) or we are free to make the ‘gamble of welcome ... when freedom knocks’. (156) Some do make the gamble, and extend the courtesy of welcome to a work of artistic creation. According to Steiner, the ‘discipline of courtesy’ (155) consists of seeking to hear the language of the stranger accurately, ‘lexical *cortesia*’ (157) and being sensitive to ‘syntax, to the grammars which are the sinew of articulate forms’. (158) When we do that, we discover that ‘we have met before’. (180) Moreover, we find that the meeting of freedoms ‘will always entail approximation ... A good reading falls short of the text or art object by a distance. The falling-short is a guarantor of the

experienced “otherness” - the freedom to be or not to be, to enter into or abstain from a commerce of spirit with us’. (175)

Here, Steiner comes so close to making the connection with the process of doing science that watching him *not* connecting is one of the most painful moments in our reading of *Real Presences*. He comes closest when he compares the ‘freedom not to be’ of the poem, the painting and the sonata with the corresponding ‘freedom not to be’ of the universe. What he says resonates powerfully with our vision of what lies at the core of science:

‘The famous question at the roots of metaphysics is: “Why should there not be nothing?” ’ (152) ‘Today, mathematical models proclaim access to the origins of the present universe. Molecular biology may have in reach an unravelling of the thread whose beginning is that of life. Nothing in these prodigious conjectures disarms, let alone elucidates, the fact that the world is when it might not have been, the fact that we are in it when we might, when we could not have been.’ (201)

But what is science? In Steiner’s terms it is men and women extending the *cortesia* of welcome to the material universe. But in our experience (and from our reading of scientific biography), the discipline of courtesy inevitably leads one to the discovery of radical otherness, in two senses. First, there is the freedom not to have been: the existence of a universe with as much structure as ours, including forms of organised carbon-based molecules known as life, depends on the very delicate ‘fine tuning’ of a set of physical constants, all of which could, as far as we know, have taken arbitrary values.<sup>9</sup> There is also ‘otherness’ in the encountered sense of strangeness: the progressive loss of anthropocentricity in viewpoint is one of the most persistent themes in scientific history at least since Copernicus removed the earth from the centre of the universe.<sup>10</sup> So the pain of disappointment to read (*italics ours*)

‘*Only art* can go some way towards making accessible, towards waking into some measure of communicability, the shear inhuman otherness of matter.’

Frighteningly, 'we are utterly free not to receive ... [when we are] face to face with the presence of offered meaning which we call a text (or a painting or a symphony)'. (153, 156) The same is, of course, true of science. Many exercise their freedom not to receive when face to face with the presence of offered meaning which we call the universe: to witness men and women in our streets simply going about their business as usual (heads decidedly *down*) under the gaze of the magnificent Hale-Bopp comet is heartbreaking.

Steiner's message in Part 3 can be summarised thus: 'it is the enterprise and privilege of the aesthetic to quicken into lit presence the continuum between temporality and eternity, between matter and spirit, between man and "the other" '. (227) The echoes with our view of science are loud and clear.

## V

Although structured in three parts, *Real Presences* in fact consists of three movements and a coda in a seemingly distant key. In the final two pages, Steiner attempts to set the sweep of his entire thesis within the shape of Judeo-Christian history. The tonal relation between this explicitly theological coda and the rest of Steiner's composition is, to our minds, tantalisingly obscure. Perhaps, even after his own 'brilliant cadenzas of argumentation' (John Carey's review in the *Sunday Times*), Steiner still feels overwhelmed by what he sees in the dark abyss of deconstructive meaninglessness. Earlier he has written, 'on its own terms and planes of argument ... the challenge of deconstruction does seem to me irrefutable'. (132) Perhaps he now feels that no argument on any plane, however brilliant, can halt the advance of the age of the epilogue (the after-Word). Immediately before the coda in a strange key, we read: 'Where it is genuinely immanent ... the poetics, the art of the "after-Word" and the interpretative responses they will solicit, will be essentially different from those we have known and whose after-life prevails still, though often

either trivialised or made mandarin, in today's transitional circumstances.' (231) Night falls on Narnia;<sup>11</sup> and Steiner feels in his bones that the daybreak is going to be long in coming:

'There is one particular day in Western history about which neither historical record nor myth nor Scripture make report. It is a Saturday. And it has become the longest of days. We know of that Good Friday which Christianity holds to have been that of the Cross. But the non-Christian, the atheist, knows of it as well. ... We know, ineluctably, of the pain, of the failure of love, of the solitude which are our history and private fate. We also know about Sunday. To the Christian, that day signifies an intimation ... of resurrection ... If we are non-Christians or non-believers, we know of that Sunday in precisely analogous terms ... the day of liberation from inhumanity and servitude. ... The lineaments of that Sunday carry the name of hope ...

But ours is the long day's journey of the Saturday. Between suffering, aloneness, unutterable waste on the one hand and the dream of liberation, of rebirth on the other. In the face ... of the death of love which is Friday, even the greatest art and poetry are almost helpless. In the Utopia of the Sunday, the aesthetic will, presumably, no longer have logic or necessity. The apprehensions and figurations in the play of metaphysical imagining, in the poem and the music, which tell of pain and of hope, of the flesh which is said to taste of ash and the spirit which is said to have the savour of fire, are always Sabbatarian. They have risen out of an immensity of waiting which is that of man. Without them, how could we be patient?'

Strangely the distant key of Steiner's coda is precisely that key in which we have been struggling to articulate a 'theology of science'. To our minds, the 'shape' of a Christian understanding of the scientific enterprise does have that same outline of 'Friday-Saturday-Sunday'. Just as in Steiner's usage, of course, such a narrative shape is just that: an enveloping shorthand for a richly-detailed story. Nonetheless, this shape is set by the most remarkable of ancient Hebrew texts for any reader

attuned to the relationship of consciousness seeking understanding of the physical world - the book of Job, and specifically the last three chapters. Here in the context of *suffering*, long-promised in the 'sweat of the brow' theme of Genesis 3, Job meets with the Creator at last, but unexpectedly: his (and our) questions of injustice are met with a teasing list of mysteries about the physical world. The beauty of the poetry is uncontested but startling for two reasons: this *is* a poem about science (Wordsworth would have approved), but takes the unusual literary form of *questions*. Questions are pointers; they fuel the narrative of science. Moreover, the encounter is not two-way but three-way: the reason for hope in the otherwise total otherness of creation to human minds is the welcome of the creator by both. So in the context of the Adamic commission, the teasing questioning of Job 38-40 becomes less of an adumbration and more of an agenda --- pointing to a time when people will, in the serpent's words but now appropriately, 'be like God, knowing good and evil'. In this text, which contains some of the most ancient strands of Hebrew creational thought, we find projected onto the central character the tensions of time between 'no longer' and a 'not yet'. Such a waiting between death and new life is focused much later in the stillness after Easter Friday's bleak afternoon and before the strange freshness of Sunday morning.

Precisely this narrative (and thus 'theoretical'?) shape is refracted by the double lens of cross and resurrection in the New Testament. The obvious resonance with creation and suffering is in the central passage of Romans 8. Once more the context of suffering frames the physical creation, which 'groans' for liberation from its 'bondage to decay'. Once more, but now stronger, there is an undercurrent of hope. The final focal point of the shape of human interaction and response to creation is the vision of the Sabbath itself, the New Creation of Revelation 21, where (as elsewhere) the dynamic between heaven and earth is *from* heaven *to* earth, not, as frequently misunderstood, in the other direction. Now at last is the garden from which mankind was once banished restored and transformed into the new City, and the temporary lights of sun and moon fulfilled in the light of the Creator. Knowledge of the deep structure of the City is complete in all

its mineral splendour. After such reconciliation, the creative ‘groaning’ articulated by St. Paul is as (happily) unnecessary as the secondary lights. Essentially, there is no more *crying*.

So a summary of a biblical theology of our meeting with the material world would say that Science is ‘a work of the Saturday’. Thence springs both its hope and its pain. Thence also the shock of relevance when we follow Steiner on his journey, and to find that at the close of *Real Presences*, he tells us that art, poetry and music share with science the same admixture of hope and pain, indeed in the same transitional sense: in the fulfilment of their hope they are no longer required. This cannot be coincidence. It points to a way of understanding the relation between the twin cultural responses of humankind which are the arts and the sciences. We have seen, throughout this essay, parallels at the points where the two are suffering. There is the ‘culture of the secondary’ and its dulling intervention between us and the primary in art and science. Steiner tells of a ‘retreat from the word’, a mistrust of implied meaning in language with its consequent abandonment of love (‘philology’ is a dead discipline). We also feel the pain of the wordlessness in the practice of science today, confining and diminishing our humanity. More hopefully, there is the common ‘fitful apprehension’ of otherness as artists and scientists practise their respective ‘discipline of courtesy’. Finally, there is the astonishing realisation that all of this signifies and shares a simple truth which is at once painful and hopeful:

*‘Ours (together) is the long day's journey of the Saturday.’*

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<sup>1</sup> George Steiner, *Real Presences* (Faber and Faber 1989)

<sup>2</sup> George Steiner, *A Festival Overture*, Festival Lecture (The University of Edinburgh 1996)

<sup>3</sup> Numbers in brackets refer to pages in *Real Presences*.

<sup>4</sup> See, e.g. *The EPSRC Programme 1997-98* (Engineering & Physical Sciences Research Council 1997)

<sup>5</sup> Reprinted in *Language and Silence* (Faber and Faber 1985)

<sup>6</sup> John Carey’s Introduction in *The Faber Book of Science* (Faber and Faber 1995)

<sup>7</sup> See, e.g., B. Appleyard, *Understanding the Present* (Pan 1992)

<sup>8</sup> S. Weinberg, *Dreams of a Final Theory* (Hutchison 1993)

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<sup>9</sup> J. Gribbin and M. Rees, *Cosmic Coincidences* (Heinemann, 1990)

<sup>10</sup> This process is documented by, e.g. S. Weinberg, *op. cit.*, p. 196.

<sup>11</sup> C. S. Lewis, *The Last Battle* (Fontana 1985), title of Chapter 14