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The Electromagnetic World of George MacDonald's Visionary Romances

Colin Manlove

This paper will argue that MacDonald's visionary romances *Phantastes* (1858), 'The Golden Key' (1867), and *Lilith* (1895) form a group that used analogies drawn from the electro-magnetic universe that was being steadily discovered throughout the nineteenth century, and in the new quantum universe of the twentieth. That these romances belong together is also clear in other terms: first, they uniquely concern matters of God and heaven throughout; second, they are the only pilgrimage fantasies, that is, stories centrally involving a journey, throughout MacDonald's work. Together they form an extraordinary blend of mysticism and science.

MacDonald was trained as a scientist at Aberdeen; and after his first degree would have gone on to study under the chemist and 'electro-biologist' Justus von Liebig at the University of Giessen in Germany but for the lack of family funds to support him. Thereafter he often lectured on science, despite no less often denigrating it for romantic and theological reasons. The topic of science in MacDonald's thought and life has been portrayed by F. Hal Broome; and Fernando Soto has written on an electrical element in *Phantastes*: these two are pioneers in this area.¹

To begin with *Phantastes*. A feature of this work that always troubled me was its insistence on not touching things. Why is there so much stress on not touching people? The fairy Anodos first meets tells him that 'if you could touch me, I should hurt you.'² Anodos does wrong in laying hands on the little girl's magic ball, which flashes and finally bursts. The people of a strange planet never touch one another, never have sexual relations, and are horrified when they learn of the way babies are made on earth. Cosmo von Wersthal

¹ F. Hal Broome, 'The Scientific Basis of MacDonald's Dream-Frame,' in William Raeper, ed., *The Gold Thread: Essays on George MacDonald* (Edinburgh, 1990), 87–108; Fernando Soto, 'Mirrors in MacDonald's *Phantastes*: A Reflexive Structure,' *North Wind, A Journal of George MacDonald Studies*, 23 (2004), 34–8, 42–44.

² George MacDonald, *Phantastes and Lilith* (London, 1962), 17. Page references for both works are to this edition.

gets closer and closer to his lady, but when she finally embraces him, it is only for him to die. A ballad about a knight called Sir Aglovaile tells how when one night, despite warnings, he touched the ghost of his former wife, he lost her finally. We can explain touch here as part of the desire to possess things that is so criticised in *Phantastes* – but really, there is nothing wrong with touch in itself. After all, plenty of the inhabitants of Fairy Land touch Anodos without censure. Why should Anodos not want to touch what he loves? Why is the command ‘TOUCH NOT’ wherever we look? So what to do with this? It is possible that seizing something is like breaking an electrical circuit. When Anodos releases the lady from the alabaster in the cave, he does it by singing to her. His song brings her to life and gives her the energy to break free of her prison and glide away towards the woods. If we conceive of the song as working like an induction coil, then he has induced in her a current of life or energy without touching her. He does the same in bringing her into visibility in the fairy palace: but then, in seizing her, he breaks the musical connection between them that is giving her life. She then literally runs away to earth, just like a current earthing itself; and he too, following, has to go down into the earth. Moreover, in future she will no longer be the mystic white lady, but will shrink to the earthly wife of the knight of rusty armour.

A not dissimilar process of earthing is seen at the end of the story, when Anodos is floating in bliss on a cloud after his death in Fairy Land, and he is suddenly cast back to earth – ‘a pang and a terrible shudder went through me; a writhing as of death convulsed me; and I became once again conscious of a more limited, even a bodily and earthly life’ (180). He has lost Fairy Land save for his memories, and wonders whether now he ‘must live it all over again, and learn it all over again, in the other forms that belong to the world of men’ (181). Again, when earlier he puts his head to the ground in the shadow of the Ash-tree in order to see it substantially, he is reduced to a state of terror (36); and later, at a moment when he is feeling that ‘Earth drew me to her bosom; I felt as if I could fall down and kiss her’ (50), he is about to fall victim to the Maid of the Alder and have his power removed.

In a paper of 1834 Michael Faraday called the point where current enters an electrolyte the ‘anode’ after the Greek for ‘up and ‘way.’ He conceived of the anode as the ‘easterly’ side of an electrolytic plate so oriented in an ionic solution as to produce an electric current by charging the cathode, which was in the westerly position. The analogy was with the sun’s movement from east

to west.³ But in truth the electrical current is from the electron-rich cathode to the anode, that is, from west to east. In *Phantastes* we have a hero called 'Anodos' who travels from west to east, and continually draws our attention to his eastwards direction (27, 37, 55, 59, 164). Going eastwards is for Christians going towards Christ: compare John Donne's 'Good Friday, 1613. Riding Westward,' in which the poet berates himself for turning his back on Christ on the day of His crucifixion.

Of course, the anode does not itself travel in an electrical circuit; but on the other hand it can occur at any point in a circuit. And Anodos is growing into his true self throughout his travels, not achieving this until the end of his journey to the east and the sunrise. Again, while Anodos moves in what looks like a linear direction from west to east in the story, he is also going in a circle out of his home and back again. In other words, his journey forms a circuit. Further, Anodos's journey not only forms a circle but a spiral, in that the Anodos who returns home at the end is a considerably developed form of the man who first left it. MacDonald said that 'The movements of a man's life are in spirals: we go back whence we came, ever returning to our former traces, only upon a higher level, to the next upward coil of the spiral, so that it is a going back and a going forward ever and both at once.'⁴

Such spirals in electricity are called coils, the coils of an electric motor that when a current is passed round them generate a magnetic field sufficient to turn the rotor. Electric motors were in existence by 1832, but were only made commercially useful by the 1870s.⁵ MacDonald would doubtless have heard of these developments and seen illustrations of their products. Electric motors of a limited kind were on show at the Great Exhibition of 1851,⁶ which MacDonald visited from Arundel.⁷

But why should MacDonald do this? Why should he liken the progress of Anodos to an electrical circuit? Is that not to degrade a spiritual process with a merely material one? *Phantastes* is written only twelve years after MacDonald gave up a scientific career. Moreover, MacDonald's literary and spiritual mentor

³ Michael Faraday, 'Experimental Researches in Electricity – Seventh Series,' in *Philosophical Transactions of the Royal Society of London* (1776–1886), 124 (January 1834), 77–9.

⁴ MacDonald, England's *Antiphon* (London, 1868), 256.

⁵ Edward Tatnall Canby, *A History of Electricity, New Illustrated Library of Science and Invention*, Vol. 6, 3rd edn (London, 1966).

⁶ K. G. Beauchamp, *Exhibiting Electricity* (London, 1997), 85–7.

⁷ William Raeper, *George MacDonald* (Tring, Herts, 1987), 86.

was the German mining engineer, poet and fabulist Friedrich von Hardenberg, or Novalis, who throughout his writings, particularly his manuscript later-entitled *Das Allgemeine Brouillon* ('Notes for a Universal Encyclopedia') insists on the doctrine of correspondences whereby scientific and material processes could be seen as interlinked in a vast analogical and spiritual system.⁸ Indeed MacDonald describes such a correspondence in *Phantastes*, when Anodos is about to recount the tale of a strange planet that might seem to have no relation to us: 'No shining belt or gleaming moon, no red and green glory in a self-encircling twin-star, but has a relation with the hidden things of a man's soul, and, it may be, with the secret history of his body as well' (83).⁹

This electrical imagery may thus help us to understand or guess at some of the oddities of *Phantastes* that seem so often to frustrate us. For instance, the long tress of her hair with which the Beech-tree girdles Anodos to protect him is something like an electric coil of wires: when the Alder-tree removes it from him and tears it in pieces he is rendered a helpless victim for the Ash-tree, as though discharged of his electric field. Again, the chamber of the imagination in the fairy palace, circled by twelve halls of statues that dance, may recall some of the makeup of an electric motor – for example the twelve-coil armature of the celebrated 'electro-moteur' of Paul Gustave Froment invented in 1845.¹⁰ Electricity can also throw light on Anodos's spiritual development during the story. For the anode is always the site of charging by new electrons, whereas the cathode is the place of discharge. By the end of his time in Fairy Land the spiritually depleted Anodos of the start of the story has been charged with new vitality and energy.

As for the shadow Anodos meets, which reduces the wonder of everything he sees in Fairy Land to the banal, and which he longs to remove from himself, what is that? – 'It began to coruscate, and shoot out on all sides a radiation of

⁸ Novalis (Georg Philipp Friedrich Freiherr von Hardenberg), *Notes for a Romantic Encyclopaedia (Das Allgemeine Brouillon)*, trans., ed. and introd. by David W. Wood (Albany, NY, 2007), 116, sect. 637: 'Every thing is a general formula of something else' (see also 136, sect. 737 and 196–7, sect. 24); and for examples, 36, sect. 245; 162, sect. 909; 176, sect. 1026.

⁹ Compare MacDonald, cited in Greville MacDonald, *George MacDonald and His Wife* (London, 1924), 216: 'He [MacDonald] knew enough of Swedenborg's teaching to feel the truth of *correspondences*, and would find innumerable instances of physical law tallying with metaphysical, of chemical affinities with spiritual affections; of crystallisation with the formation of purpose; of solution with patient waiting till the time for action was come; and so forth.'

¹⁰ Canby, 53, has a picture of this.

dim shadow. These rays of gloom issued from the central shadow as from a black sun, lengthening and shortening with continual change. But wherever a ray struck, that part of the earth, or sea, or sky, became void, and desert, and sad to my heart' (66). This shadow turns a haloed child and his wonderful toys to the merely banal when it covers him, and even blasts the sun. It is possible to see this shadow, which saps the life out of things, as operating on Anodos like a resistor in the circuit of his travels.

If in part *Phantastes* may be said to be based on electricity, 'The Golden Key' has magnetism for its scientific root. For much of the story the protagonists Mossy and Tangle are drawn by desire towards their goal, first to find the door whose lock the golden key will fit, and then that door becomes the means to reach a further end, the country 'from whence the shadows fall.' There are no antagonists such as Anodos's shadow in *Phantastes* or the evil princess in *Lilith* to obstruct their progress – though Tangle does go by a more roundabout route. The journey of the two is westwards, towards sunset and death before resurrection: it is opposite to that of Anodos in *Phantastes*, moving electrically towards a state of discharge. The story is driven by the characters' desire to close the distance between themselves and their object, and we feel its pressure on them throughout their journey, as they push past mountain ranges and plains, and then as Mossy walks across the sea to the cliff he must enter, and Tangle goes by way of the three Old Men of the Sea, the Earth and the Fire to enter the mountain from beneath. And at every stage too the reader is drawn onwards by the pressure to see how they will reach their goal. The laws of magnetism as of electricity take part in a universal web of analogy, whereby magnetic attraction and spiritual longing are but different modes of movement towards God.

'The Golden Key' has one other pervasive magnetic image, that of the rainbow, which overarches the story like a huge line of force, if from east to west. In most stories of rainbows' ends there is only one terminus to the rainbow, where treasure or one's heart's desire is to be found: but in MacDonald's story there are two, forming opposite poles with an attractive force between them. Long before MacDonald's day it was known that the earth was a huge magnet (though the fact that this came from its iron core was not known till 1940).¹¹ Tangle descends to the centre of the earth, in whose fiery core lies the centre of its physical and spiritual magnetism both, in the form of a baby. This baby gives Tangle her direction to the country whence

¹¹ William Gilbert, *De Magnete, Magneticisque Corporibus, et de Magno Magnete Tellure* (London, 1600)

the shadows fall in the shape of a little snake that she must follow; and as she does so, 'The serpent went straight on, turning neither to the right nor left.' This serpent, quite apart from any other symbolic meanings it has, can be seen as an image of a compass needle in a magnetic field.

The magnetic attraction that governs 'The Golden Key' would appear to be reversed in *Lilith*. Here everything seems mutually repellent, at least to the hero Vane. Where Anodos happily walks off from his Victorian bedroom into Fairy Land, Vane's immediate impulse is to leave the strange world in which he has found himself, and return home: he only travels in the region of seven dimensions when he learns that, because he has just chosen to return to it, there is now no way out of it. Vane is repelled by the riddles of Mr Raven; flees from the coldness of the dormitory of the dead; is pursued by the hideous creatures of the Bad Burrow; is terrified at the fighting skeletons in the Evil Wood; and disgusted by the fleshly decay of the dancers in the woodland hall. When he meets the children of the forest, the Little Ones, he is drawn to them; but no sooner has this happened than he is captured and enslaved by the gross giants who are their other side. Vane next falls in love with a dying woman he finds and nurses back to health; but *she* rejects *him*.¹² This woman, Lilith, is absolutely opposed to every principle of good, and most specifically to her daughter Lona and her step-daughter Mara.

The people Vane meets on his travels are also most of them isolated from one another: effectively, through his journeys among them, he connects them up like points on a circuit board, until by the end of the story there is a measure of commerce among them. But if 'magnetic resistance' is thus finally overcome, mutual repugnance is the primary idiom of the story. In effect, Vane finds his way to the dormitory of the dead only by fleeing from it – and not just once but twice, for, when he returns with Lilith from Bulika and Adam asks him to stay the night, he again refuses and sets off on another circuit of the country.

A scientific element in *Lilith* was first noted by H. G. Wells, who was excited by MacDonald's idea of passing from this world to another through the device of polarised light striking a mirror.¹³ For Wells Vane was going into a genuine

¹² In his 'Frustrated Interpretation in *Lilith*' (Harriman, ed., *Lilith in a New Light*, 96–7) John Pennington has remarked, 'The desires of Vane and Lilith are complementary but also diametrically opposed, giving the novel a sustained tension as when two opposing magnets force each other away.'

¹³ Wells wrote to MacDonald on 24 September 1895: 'I have been reading your *Lilith* with exceptional interest. Curiously enough I have been at work on a book based on essentially the same idea, namely that, assuming more than three dimensions, it

other world, to enter which some form of apparatus was necessary: what Wells did not see was that Vane was also going into an inner landscape, a picture of the state of his own spirit and also into a supernatural world, the purgatory that awaits all souls. The idea of passing into a world of higher dimensions was present in the scientific speculation of MacDonald's day – in Bernhard Riemann's concept of n -dimensional geometry (1857) and its numerous followers, and in such later speculations as those in E. R. Abbott's *Flatland: A Romance of Many Dimensions* (1884), in the essays of the mathematician C. R. Hinton, and indeed in the first chapter of Wells's own *The Time Machine*, published in 1895, the same year as *Lilith*.¹⁴ Vane's journey in *Lilith* is in part one of assimilating the reality of the world of higher dimensions with which he is faced – that is, of moving from a three- to a seven-dimensional understanding. But this adaptation is not simply a matter of mental adjustment, but of a transformation of the spirit.

As soon as Vane has arrived in the strange land through the mirror, he is presented with a teacher of its fundamental laws. No such authority appears to Anodos in *Phantastes*, who is left to reflect that 'it is no use trying to account for things in Fairy Land; and one who travels there soon learns to forget the very idea of doing so' (33). First Mr Raven attacks Vane's certainty about where his real home is, and then questions his very identity, in order to undermine him. Vane thinks he came through a mirror, but Mr Raven tells him it was a door, and not a door *in*, as in Vane's world, but one *out*. For Vane this is absurd, since it is perfectly possible to go in or out through a door in his world; but Mr Raven is talking not about a physical door, but a spiritual one, through which one can only go out, out of the self. And the more one goes through such doors, 'the farther you get in!' (194).

Vane, who (like MacDonald himself once) is a student of the physical sciences, has also been attracted to making analogies between physical and metaphysical facts and 'between physical hypotheses and suggestions glimmering out of the metaphysical dreams into which I was in the habit of falling' (187), is actually like E. A. Abbott or C. H. Hinton in his notion

follows that there must be wonderful worlds nearer to us than breathing and closer than hands and feet. I have wanted to get into such kindred worlds for the purposes of romance for several years, but I've been bothered by the way. Your polarisation and mirror business struck me as neat in the extreme' (Greville MacDonald, *Reminiscences of a Specialist* (London, 1932), 323–4).

¹⁴ On MacDonald's probable debt to Abbott, see Jeffrey Bilbro, '“Yet more spacious Space”: Higher-Dimensional Imagination from *Flatland* to *Lilith*', *North Wind* 28 (2009), 1–12.

of metaphysics as an extension of physics rather than a realm of the spirit requiring a wholly new understanding of the basis of life. This is the approach to metaphysics of the science fiction writer as opposed to the writer of supernatural fantasy. This is why, despite his own speculative mind, Vane is wholly unable to comprehend the world as presented to him by Mr Raven. Nevertheless we *will* find analogy between the region of the seven dimensions and science – but Einsteinian science, of which the Victorian Vane has no knowledge.

The region of the seven dimensions is not a world such as H.G. Wells's Mars or Frank Herbert's Dune, where the nature and customs may be different, but the fundamental physical laws remain the same. This region is a place that works by laws founded on what to us is paradox and seeming impossibility. To Vane's 'Two objects . . . cannot exist in the same place at the same time,' Mr Raven replies, 'Can they not? . . . No man of the universe, only a man of the world could have said so' (204). In this region, 'nobody is himself, and himself is nobody,' a pigeon can come out of a heart, and 'you will be dead, so long as you refuse to die' (196, 206, 331). These are the laws of the spirit presented as laws of a higher science which Vane the physical scientist has yet to learn. When he has done so, they will cease to seem riddles and make perfect sense (226).

Some of these paradoxes, such as that two objects can be at the same time in the same place, or that there need be no such thing as distance or separated times, are in fact now part of scientific thinking in a quantum universe that can be folded upon itself and contain an infinity of coexisting worlds. Of course, this is not predicated on a world of the spirit, but it does involve the paradoxical vision that has hitherto been exclusively the province of religion.

Throughout *Lilith* there is frequent mention of what may be called the science of the soul, the laws by which events occur in the region of the seven dimensions. What is being portrayed, after all, in a purgatory, is a purification and refinement of souls analogous to that carried out on mine ores to extract metals or elements. Adam tells Vane 'To go back you must go through yourself, and that way no man can show another' (204); Lilith declares, 'Your perfection is a poor thing, comes soon, and lasts but a little while; ours is a ceaseless ripening' (305); and Mara, while Lilith is writhing in the torment of spiritual change, explains,

She is far away from us, afar in the hell of her self-consciousness. The central fire of the universe is radiating into her the knowledge of good

and evil, the knowledge of what she is. She sees at last the good she is not, the evil she is. She knows that she is herself the fire in which she is burning, but she does not know that the Light of Life is the heart of that fire. Her torment is that she is what she is. Do not fear for her; she is not forsaken. No gentler way to help her was left. (373)

This is not unlike a spiritual engineer commenting on the present status of a high temperature fusion process. For all its mysterious nature, *Lilith* is full of such exposition. There is nothing like this in *Phantastes* where there is hardly ever any explanation of what is going on, and Anodos is for much of the time on his own and in a state of bafflement.

We have said how *Lilith* is founded on paradox – nobody is himself and himself is nobody, home is ever so far away in the palm of your hand, a door out is a door in, one can only grow by going backwards. All of this vision is based on upending our knowledge of this world; physics inverted into metaphysics. Or in other terms, into something analogous to modern quantum physics. What I want to suggest here is that *Lilith* is structured rather like a quantum computer of the spirit. Remember that the world of *Lilith* as a purgatory relates not simply to one idiosyncratic man but to all conditions of humanity past and present, and therefore requires something like a controlling programme for the universal optimisation of souls.

One spiritual law of *Lilith* is that everything occurs in several versions – nothing, in this purgatorial world, is yet in its true form, and therefore requires several identities through which to be expressed. In itself *Lilith* is another version of *Phantastes*, the two making up one di-polar fantasy, *Phantastes* dealing with what may be called the first things, and *Lilith* with the last. Within *Lilith*, Vane makes three versions of a journey into the region of the seven dimensions. Lilith appears first as a nearly dead woman, then as a beautiful one, then as Princess of Bulika, then as a spotted leopardess, then as a cat, before being described as Lilith by Mr Raven. Mr Raven himself is seen first, dimly, as a possible ghost or a former librarian, then as a bird-man called Mr Raven, then as a man with a wife who has a house on the heath, and finally as Adam, and his wife as Eve: yet even in their naming these two are little like the Adam and Eve we are familiar with from the bible. The Little Ones can change into stupid giants and Mara into a white leopardess. Mara herself – the name comes from Anglo-Saxon ‘mære’ meaning ‘night-mare’ – is as a leopardess a version of Lilith at the same time as being her opposite. In the Evil Wood the trees turn to warring armies of people.

Metamorphosis is in the idiom of this strange world: Mr Raven tells Vane that 'Everyone . . . has a beast-self – and a bird-self and a stupid fish-self, ay, and a creeping serpent self too . . . In truth he has also a tree-self and a crystal-self, and I don't know how many selves more – all to get into harmony' (211). Most people do not yet have their true identities or names. The first question Vane is asked is, 'Who are you, pray?' and Mara tells him that 'Your real name is written in your forehead, but at present it whirls about so irregularly that nobody can read it' (253).

The region of the seven dimensions itself can also be variously seen. Mr Raven at times makes it appear as another, science-fictional planet with its own peculiar ecology and creatures – and the pseudo-science of 'polarised light' at the mirror-portal furthers this. Then again, this other world is also a spiritual place, the purgatory for all people who have ever lived. But then we can also see the strange and desolate landscape that Vane sees through the mirror as a reflection of himself, of his own mind, his inner landscape; and much of what he meets on his travels seems part of himself – the innocence of the Little Ones, the stupidity of the giants, the arrogance of Lilith. All these different and mutually inconsistent views of the strange world are simultaneously true.

Vane is described as travelling across a landscape: but in a sense he also does not travel at all. His journey exists in yet another version – within his soul. In a similar way Bunyan's *The Pilgrim's Progress* portrays a long walk across difficult countryside from the City of Destruction to Celestial City; but in the 'real' world, its hero Christian makes no physical journey, only one within his spirit. So in *Lilith* Vane is shown leaving Mr Raven and travelling through the region of the seven dimensions past the Bad Burrow, the Evil Wood, the fruit trees of the Little Ones, Mara's cottage, the hall of dancing skeletons, the river where Lilith lies and the city of Bulika; but at the same time he has not physically moved a step. Mr Raven says, 'you have not left your house, neither has your house left you' (202). He tells Vane that the strange region where they stand is coincident with the breakfast-room of his house in the Victorian world, where his housekeeper's niece is presently playing the piano (203–4). We thus have two versions of Vane's journey: in one it appears solid and material, and in the other it is spiritual and interior. In the case of Bunyan's story, as with all good allegory, we translate the continued metaphor of the journey into movements of the spirit. But with *Lilith* it is slightly different, in that Vane himself is a materialist and is not aware of any spiritual journey he is making. Without his being labelled as Mr Materialist, as he would be in

Bunyan, it is harder here to see through to the deeper level; and harder too to see the landscape only as a metaphor and not as existing in its own right. When in Spenser's *The Faerie Queene* the Redcrosse knight thinks he sees his lady Una in the arms of another, and is later overthrown by a knight called Sansfoy ('Without faith'), we read through the fiction to the spiritual fact that Redcrosse has lost sight of truth and faith. But in *Lilith* such dismissal of the surface story is less possible.

We think that Vane may be either dreaming his vision at home, or else in a real other world called the region of the seven dimensions: but he is also in both at once. Mr Vane tells Vane that 'you have not yet left your house, nor has your house left you' (202). This is put over through the bi-localism of the story, whereby the 'other' world is made exactly coterminous with this one. Thus an either / or situation is also an and/and one just as with the 'qubit' of a quantum computer. In the same way, at the end of the story, when Vane is sleeping in the dormitory of the dead and thinks that he wakes and wanders into the land outside the cottage, Mr Raven tells him that he is dreaming: and the sense of not knowing whether he is dreaming or waking persists when Vane finds himself at home and apparently cut off from the dormitory. But in fact he is also both dreaming and waking at once, and we feel this as we read.

In *Lilith* any one phenomenon, any one character, place or action, exists in multiple modes. Vane both does and does not make a journey, the region of the seven dimensions is a series of multiple and mutually exclusive locations, Lilith is a leopardess and a woman. This comes out particularly in the matter of Vane's development. At the beginning of his journey he understands none of Mr Raven's riddles; by the end he does. Yet at the literal level no spiritual change in him has happened between. On his journey he fails to look after the Little Ones and falls in love with the evil, child-slaying Princess of Bulika. His second circuit of the country starts with his refusal to heed Mr Raven, and is followed by the collapse of his horse, an attack by wolves and then cats, and capture by the stupid giants. Saved by the Little Ones, who have in Vane's absence developed a far more sophisticated society, Vane resolves to attack Bulika and install their queen Lona on the throne with himself as consort; he even thinks to open 'a commerce in gems between the two worlds' (346). No sign of spiritual development in him at the story level, then. With Bulika stormed, Vane's now beloved Lona killed by Lilith, and Lilith herself captured, the city seems so ungovernable that they resolve to leave it. Vane now wants only to get rid of Lilith, and the company travel to Mara's house to find directions on how to cross some rough country. Again, all Vane's

considerations have been about his own material gain and comfort. Mara has other plans than mere direction-giving. She is determined to make Lilith repent of her evil, and that night is devoted to attempting this. We hear nothing for the time of Vane, until suddenly, in the middle of the process, he for the first time begins to speak theology: he declares, 'A horrible Nothingness, a Negation positive infolded her [Lilith]' (375). This is the first time Vane has shown any knowledge of the world beyond sense. He continues to interject in these terms until the company set out to go to Adam for Lilith's final cure. There again, gathered with others in the dormitory of the dead, Vane says nothing during the entire process. But then, suddenly, with Lilith now asleep on one of the beds, he calls out, 'I give me up. I am sick of myself, and would fain sleep the sleep' (391).

Nothing at the *literal* level of the story has prepared us for this: on this level it comes as a shock. Yet if we consider the whole story as a projection of Vane's soul, his inner landscape, it begins to make sense. For instance, each item he encounters on his journey exists in isolation from the others: by visiting them all he can be seen as connecting them up: that is, he creates a measure of community among the formerly islanded parts of his spirit; and this is furthered during his second journey. However when Vane meets Lilith he meets his own evil in its worst form. She represents at its extreme the refusal to yield the self that made him twice reject the dormitory of the dead, the proud isolation that once made him happy to be alone, the blindness to truth that has left him unaware of any other category than the material, the refusal to bow to others. When Vane nurses her to health and falls in love with her, he is demonstrating his commitment to her evil. Later therefore, when Lilith is brought to repent, we may see this as a symbol of what is happening in Vane himself, so that when she is ready to lie down with the sleepers, so is he.

We therefore have two readings: at the literal level of the story Vane does not change at all, while at the allegorical level he does. And the story is so framed that both versions are valid. In Bunyan and Spenser we can put aside the story for the inner truth, but not here. In effect we are asked to entertain a contradiction: Vane is a hopeless materialist throughout, and Vane is spiritually developing from the start. And this is the paradoxical vision of *Lilith*, in which opposed versions of events lie side by side.

In the same way, for instance, the seven-dimensional, paradox-filled vision of reality that Mr Raven tries to inculcate into Vane cannot wholly dismiss Vane's three-dimensional way of seeing, because that is the fundamental idiom

in which he is created. In the region of the seven dimensions the realities of the spirit, or in other terms the other four dimensions, are always breaking through, whether in the armies of the Evil Wood, the changes in the dancers in the woodland hall, or in the awe-full nature of Mara. Mr Raven's continual critiques of Vane are both justified and unjustified. Vane's materialism is the product of living in a three-dimensional world: Mr Raven's intolerant metaphysics arises out of too great a habituation to a world of a further four in which the laws of the spirit are dominant.

The idea of 'bi-localism' in the story supposes that two worlds can be in the same place at the same time, and can even influence one another, as some long-headed hyacinths in the other world are entwined in the strings of a piano that the niece of Vane's housekeeper is playing back in his Victorian house 'and give that peculiar sweetness to her playing!' (204). In the same way the region of the seven dimensions can be different places to different people. To Vane it is a bleak and largely desert landscape. To Mr Raven it has in it a ruined church still inhabited by its former congregation, whose prayers arise from it like birds; for him the world is one of living thoughts, as it was when created (206). To a squabbling married couple Vane meets it is hell (271). And when Vane is resurrected from his sleep to go to heaven, the world about him has changed to a paradise. The world that Vane sees so solidly throughout his journey is actually many worlds, that change with changing thought.

A similar dual situation is found with Lilith, particularly in her transformation by Mara to good. Several recent readers have found that her character is too vivid and various to be easily judged, and have objected to the moral censure placed on her effectively feminist rebellion. John Pennington has noted that Lilith's very nature forbids her capitulation: she is a permanent fact of the spiritual landscape, and to have her conclude, and stop being Lilith, is a contradiction.¹⁵ The more common suggestion is that she got out of MacDonald's control and he could only suppress her forcibly. But there is also a view of her opposite to this. The admiring view of her is Vane's, and he is her fool; she is continually seen critically as a megalomaniac and a destroyer. Further she is overcome not just by the force of Mara and Adam, but by her own choices: her evil, in the shape of a dark spot, is steadily devouring her, and she is being weakened by her very energies. Nevertheless these points can be answered in their turn also; and really we are left in the end in a quandary in

¹⁵ Pennington, 97.

regard to Lilith's treatment. Here again both views sit irreconcilably together. Lilith is finally beyond censure, and Lilith is judged evil; she is brought to repentance naturally, and she is forced to yield.

The same goes for the inconsistencies that multiply towards the end of the book. We are told that the final resurrection is now, and then that it is yet to come. Vane reaches God; Vane is turned away by God. Heaven is all good; heaven contains evil. Vane is sent back to this world and Vane is still at the end dreaming in the region of the seven dimensions. But there is reason for this. We have approached the point in the story where all the contradictions that run through it are brought to an extreme because only beyond them lies an atonement, at-one-ment, past our conceiving. The nearer we get to it the farther off we are. Vane's meeting with God simply cannot be written. We are left with contradiction: he reaches God, and he is turned away. Only in his own true death will he be able to enter on the divine mysteries and reconciliations.

This of course is paradox: but paradox is now not necessarily the sole property of the Christian vision. *Lilith* was published in 1895, ten years before MacDonald's death and another event of 1905, the publication of the 'annus mirabilis' papers of Albert Einstein, discoverer of the quantum universe.¹⁶ In such a universe opposites can both be true. Most recently this is demonstrated in the quantum computer, where in place of the old binary idea of the 'bit' as 1 or 0 there is the 'qubit' of 1 or 0 and 1+0 – that is particle OR wave together with particle AND wave simultaneously – that is, a contradiction in action. In other words, on to the old system of 0 either/or is added that of and/and.¹⁷ This is just the 'system' of *Lilith*: for there we have a universe of alternatives which is also one of additions. There we have numerous opposed accounts of the nature of the fantastic universe all of which are both true and not true.¹⁸

¹⁶ These are: 'Concerning an Heuristic Point of View Toward the Emission and Transformation of Light', *Annalen der Physik* 17 (1905), 132–148; 'On the Movement of Small Particles Suspended in Stationary Liquids Required by the Molecular-Kinetic Theory of Heat', *Annalen der Physik* 17 (1905), 549–60; 'On the Electrodynamics of Moving Bodies', *Annalen der Physik* 17 (1905), 891–921; and 'Does the Inertia of a Body Depend upon its Energy Content?', *Annalen der Physik* 18 (1905), 639–41.

¹⁷ Andrew Anthony, 'The Rage to build the Most Powerful Computer in History,' *The Observer, New Review, Science and Tech*, 22 May, 2016, 19–21.

¹⁸ The analogy here is with the Austrian Erwin Schrödinger's demonstration, in his November 1935 paper, 'Die Gegenwärtige Situation in der Quantenmechanik,' of the supposed absurdity of quantum theory: Schrödinger postulated a cat, placed in a sealed box alongside a phial of poison gas and an atom which may or may not emit a radioactive particle which would close a circuit, break the phial and kill the cat. The question is, 'Without opening the box, is the cat dead or alive?' The straight answer is that it is either dead or alive; the quantum answer is that until the box is opened

There we are asked to see Vane simultaneously developing and not doing so; Lilith as rightly tamed and not, heaven as both reached and not yet found. The moral universe asks us, like the current binary computer, to choose between Lilith and Adam; the metaphysical one demands acceptance of both at once. The divisive and the synthetic vision exist together. Of course, MacDonald does not intend any of this: his vision is still the divine science of the human spirit. But it is interesting to reflect on how so sensitive a mind, still part-scientific, could catch these wisps of the future in the changing scientific thought of his own time – could in effect make a work that is in many ways an image of a machine that is only now being developed. This says much on the depth of his knowledge of reality.

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the cat is simultaneously dead *and* alive – which for Schrödinger was a nonsense. But in fact Schrodinger's proof only served the better to demonstrate quantum theory in action. See esp. section 5 of John D. Trimmer, trans., Erwin Schrödinger, 'The Present Situation in Quantum Mechanics: A Translation of Schrodinger's Cat Paradox Paper' in *Proceedings of the American Philosophical Society* 124 (1961), 323–38.