**Spirituality in a Materialistic World:**
**a consideration of the contributions of four 20th Century Hypotheses;**
**Archetypes, Morphogenic Fields, Virtual State Actualisation, and Omega Point** [1]

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David C Moore
spiritusconsulting.au

**Abstract**

Though 21st century people are decreasingly likely to identity with 'religion', there has been an increasing willingness to identify with 'spirituality'. But can spirituality make any more sense in the context of the dominant scientific materialist worldview?

In its scientific sense, 'materialist', or 'physicalist', means that there is nothing apart from matter, strictly that which is physical. These are measurable and quantifiable. Everything else – including consciousness, spirituality, religion, psyche, and so on – is considered to be non-measurable, and therefore non-existent.

This means that whether people believe in religious systems, or even if they prefer to consider themselves empathetic to spirituality, the assumptions of both are in fact incompatible with all the fundamental underpinnings of modern Western consciousness, and in particular as expressed in Western economics and technology.

The consequence of this is that all persons – varying only by degree - live a kind of split existence, because the physicalist assumptions upon which our economies and technologies are based deny the reality of the non-material meaning systems that most people continue to employ in order to make sense of life. Spirituality would be heading for the same fate as religion.

This essay will reflect on four 20th century concepts which may offer some fruitful dialogue towards healing the split between religion and science, between spirituality and scientific materialism: C G Jung's Archetypes; Rupert Sheldrake's Morphogenic Fields; Lothar Schäfer's Virtual State Actualisation, and Teilhard de Chardin's Omega Point.

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## 1. The incompatibility of spirituality and scientific materialism

There is a growing awareness of the very real tension associated with the attempt to hold to any form of spirituality in the context of living in a materialistic world – a world in which none of the practical requirements, even enjoyments, of life seem to require any kind of non-matter, but only money, resources; and perhaps just machines![2] In 'The Meaning of Life' the Pythons whimsically asked the question with a distinctly rhetorical flavour:[3]

> Is life just a game where we make up the rules
> While we're searching for something to say

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1 Based on a presentation to the Brisbane Jung Society, 6 July 2017.

2 'Rise of the machines: Is a universal basic income the answer for mass unemployment?', ABC News online, 3 July 2017, http://www.abc.net.au/news/2017-07-04/universal-basic-income-money-for-nothing/8676834

3 Monty Python, 'The Meaning of Life', **The Meaning of Life**, http://www.montypython.net/scripts/meanlife.php

Or are we just simply spiralling coils
Of self-replicating DNA?

They offer an answer, voicing the modern materialist doctrine:[4]

So remember, when you're feeling very small and insecure,
How amazingly unlikely is your birth;
And pray that there's intelligent life somewhere out in space,
'Cause there's bugger all down here on Earth!

The Pythons touched a nerve, perhaps, for our era, expressing in a playful and entertaining tone what lies at the heart of the atheist critique.[5] Life is entirely random, purposeless, without justice or essential meaning or direction.[6] Only that which can be measured 'scientifically' is real. All else, including all that we might call 'spirituality' is ephemera, mere illusion. This means that whether people 'believe in religious systems' or prefer to consider themselves the less intense 'empathetic to spirituality', the assumptions of both are in truth incompatible with all the fundamental underpinnings of modern Western consciousness, and in particular Western economics and technology. We may well hold to 'spiritualities'; but no matter what our spirituality might say on a subject, the dominant scientific paradigm judges it all to be irrelevant. Your life is nothing more than a matter of random mutations, the blind forces of natural selection, self-replicating DNA, the interplay of chance and 'survival of the fittest'. Enslavement to the 'market economy' is perhaps the inevitable end-product of the ascendency of the scientific paradigm, and specifically, it's radical materialism; all life forms reduced to mere life-less chance, fair game for survival-of-the-fittest exploitation, and reduced to profitability and utility.

The biologist Rupert Sheldrake summarises the development and influence of the materialistic paradigm in this way:[7]

- The mechanistic revolution of 17th century science abolished ends, purposes, goals and final causes - everything is explained mechanically
- Souls and purposes were thus abolished from nature - the only purposes were human and divine
- 19th century materialism and atheism abolished divine purposes - leaving only human purposes
- Late 20th century neo-Darwinians eliminated human purposes, reduced creativity to random mutations and the blind forces of natural selection

4 Monty Python, 'Galaxy Song', **The Meaning of Life**, http://www.montypython.net/scripts/galaxy.php

5 The Atheist Foundation defines atheism as, "the acceptance that there is no credible scientific or factually reliable evidence for the existence of a god, gods or the supernatural." http://atheistfoundation.org.au

6 "In a universe of electrons and selfish genes, blind physical forces and genetic replication, some people are going to get hurt, other people are going to get lucky, and you won't find any rhyme or reason in it, nor any justice. The universe that we observe has precisely the properties we should expect if there is, at bottom, no design, no purpose, no evil, no good, nothing but pitiless indifference." Richard Dawkins, **River Out of Eden: A Darwinian View of Life**, New York: Basic Books, 1995, p133.

7 Rupert Sheldrake, **The Science Delusion: Freeing the Spirit of Enquiry**, London: Coronet Books, 2012, pp131,148-149.

- With the 1960s acceptance of Big Bang theory, purposelessness was extended to the entire cosmos

Sheldrake is emphatic that this stance cannot be empirically proved; and is thus itself *not a fact*, but an *act of faith*.[8] "The central doctrine of materialism is that matter is the only reality. Therefore consciousness ought not to exist. Materialism's biggest problem is that consciousness does exist."[9] Peter Todd astutely names this 'metaphysical materialism'.[10]

So, setting out on this exploration, it's worth considering the question: Does it matter? Does it matter whether human life, or cosmic reality for that matter, has purpose or meaning?

The philosopher Richard Tarnas reflects on the consequences of the materialistic paradigm in his 'Passion of the Western Mind', describing the bifurcation of reason and faith, spawning a 'double-truth universe':[11]

> We seem to receive two messages from our existential situation: on the one hand, strive, give oneself to the quest for meaning and spiritual fulfilment; but on the other hand, know that the universe, of whose substance we are derived, is entirely indifferent to that quest, soulless in character, and nullifying in its effects. We are at once aroused and crushed. For inexplicably, absurdly, the cosmos is inhuman, yet we are not. The situation is profoundly unintelligible.

Applying Gregory Bateson's 'double-bind hypothesis', Tarnas observes that,

> Either inner or outer realities tend to be distorted: inner feelings are repressed and denied, as in apathy or psychic numbing, or they are inflated in compensation, as in narcissism and egocentrism; or the outer world is slavishly submitted to as the only reality, or it is aggressively objectified and exploited.[12]

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8 Rupert Sheldrake, (2012), p131, 145,146, 147, 151. The theoretical physicist Fritjof Capra noted that, "It is now apparent that most of the DNA – perhaps as much as 95 percent – may be used for integrative activities about which biologists are likely to remain ignorant as long as they adhere to mechanistic models." Fritjof Capra, **The Web of Life: New Scientific Understanding of Living Systems**, New York: Anchor Books, 1996, p78. It is now accepted by physicists and cosmologists that only 5% of the Universe consists of atomic (visible) matter, the remaining 95% consisting of 'dark energy' and 'dark matter', which cannot be accounted for by mechanistic models. Katherine Freese, **The Cosmic Cocktail: Three Parts Dark Matter**, Princeton: Princeton University Press, 2014, p192. It is also suggested by some quantum physicists that if life evolves merely out of random variations, in the processes of natural selection, then the 13.8 billion years of the universe would be nowhere near long enough to account for the measurable diversity of life. See Lothar Schäfer, 'The Emergence of Consciousness in Biological Evolution and Quantum reality', in Thierry Meynard (ed.), **Teilhard and the Future of Humanity**, New York: Fordham University Press, 2006, p122, and Peter B Todd, **The Individuation of God: Integrating Science and Religion**, Wilmette: Chiron Publications, 2012, p44.

9 Rupert Sheldrake, (2012), p109.

10 Peter B Todd, p52-53. Materialism's metaphysical assertion that only matter is real is not limited to scientists. For instance, one materialist psychologist described consciousness as illusory, as: "a magical mystery show we stage for ourselves inside our heads." Cited by Rupert Sheldrake, p113; Nicholas Humphrey, **Soul Dust: The Magic of Consciousness**, London: Quercus, 2011.

11 Reason and faith came to be seen as pertaining to different realms… no genuine integration between the scientific reality and the religious reality… With both science and religion simultaneously vital yet discrepant, the culture's world view was by necessity bifurcated, reflecting a metaphysical schism that existed as much within the individual as within the larger society. Richard Tarnas, **The Passion of the Western Mind: Understanding the Ideas That Have Shaped Our World View**, New York: Ballantine Books, 1991, p302. Tarnas continues: "Religion was increasingly compartmentalized, seen as relevant less to the outer world than to the inner self, less to the contemporary spirit than to revered tradition, less to this life than to the afterlife, less to everyday than Sunday."

12 Richard Tarnas, p420-421. "If we follow [Gregory] Bateson's ['double bind'] diagnosis and apply it to the larger modern condition, it should not be surprising what kinds of response the modern psyche has made to

So does it matter that human life and consciousness is ultimately without meaning or purpose? Does it matter that there is no relation between the domains of materialistic science and spirituality; indeed, that the former regards the latter as mere illusion? Does it matter that "The relationship between matter and consciousness has collapsed?"[13] Does it matter, in the evocative phrasing of former Czech Republic President Vaclav Havel, that we are "an unhappy bit of mildew on a heavenly body whirling in space among many that have no mildew on them at all."[14] Are we even able to see that this is both a psychological and religious crisis?[15]

Tarnas is suggesting that one of the reasons it does matter is that it makes us schizophrenic in some measure; trapped in a double-bind, attempting to relate to a universe which is entirely indifferent to our labour, our effort, our life's work, indeed actually nullifying whatever effort we make, at once aroused and crushed, in an unintelligible and absurd cosmos. And in terms of a global ethic, just as 'Heaven has been abandoned', so too have we "left the earth for dead"; simultaneously ruining our place, 'mother' earth, and losing our sense of belonging in 'her'.[16] Elucidating Jung's concerns, Jungian analyst John Dourley

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this situation as it attempts to escape the double bind's inherent contradictions." He outlines the situation thus: (1) The human being's relationship to the world is one of vital dependency; (2) But the human mind receives contradictory or incompatible information about its situation with respect to the world, the inner/psychological/spiritual sense of things incoherent with the scientific 'metacommunication'; (3) Thus, epistemologically, the human mind cannot achieve direct communication with the world; (4) Yet, existentially, the human being cannot leave the field [of the world] Tarnas continues the diagnosis in a darker tone: "There is also the strategy of flight, through various forms of escapism: compulsive economic consumption, absorption in the mass media, faddism, cults, ideologies, nationalistic fervor, alcoholism, drug addiction. When avoidance mechanism cannot be sustained, there is anxiety, paranoia, chronic hostility, a feeling of helpless victimization, a tendency to suspect all meanings, an impulse towards self-negation, a sense of purposelessness and absurdity, a feeling of irresolvable inner contradiction, a fragmenting of consciousness. And at the extreme, there are the full-blown psychopathological reactions of the schizophrenic: self-destructive violence, delusional states, massive amnesia, catatonia, automatism, mania, nihilism. The modern world knows each of these reactions in various combinations and compromise formations, and its social and political life is notoriously so determined."

13 David Bohm, p250.

14 Vaclav Havel, President of the Czech Republic, 'Liberty Medal Speech', July 4, 1994, Independence Hall, Philadelphia, PA. Havel observed that "By day, we work with statistics; in the evening, we consult astrologers and frighten ourselves with thrillers about vampires. The abyss between the rational and the spiritual, the external and the internal, the objective and the subjective, the technical and the moral, the universal and the unique constantly grows deeper… Until recently it might have seemed that we were an unhappy bit of mildew on a heavenly body whirling in space among many that have no mildew on them at all. This was something that classical science could explain."

15 Carl G Jung, (W S Dell & Cary F Baynes, trans.), 'Psychotherapists or Clergy', in **Modern Man in Search of a Soul**, New York: Harvest Books, 1933, p229. "Among all my patients in the second half of life – that is to say, over thirty-five – there has not been one whose problem in the last resort was not that of finding a religious outlook on life." Though a mechanistic-materialistic world view can pronounce 'religion' to be illusory and irrelevant, humans are, in John Dourley's term, 'incorrigibly religious'. "Reflection on … individuation points to the conclusion that humanity is incorrigibly religious and as such faces an ambiguous situation in which its life can be enhanced or destroyed by a religiosity it cannot escape." John P Dourley, **A Strategy for a Loss of Faith: Jung's Proposal**, Toronto: Inner City Books, 1992, p53. From a practical point of view, "Religion is whatever you really believe is going to get you where you want to go. In today's secular world, we believe that science and technology, money and political power, etc., will convey us to our goals." Scott Eastham, in Pannikar, p vii. Eastham expresses the 'double-bind' in this way: "And yet at the same time we also profess to believe in God or in the environment or justice or peace or whatever – values often utterly at odds with our dominant materialistic belief systems. How do we reconcile these "ultimates"? All too often, we don't. We merely compartmentalize our lives – one set of mores for work, another for family or friends, and still more obsolete fables to tell our children when we realize we cant answer even their simplest questions about the meaning of our lives."

16 The theologian Raymond Pannikar observed: "The modern western world has undergone a thoroughgoing deanthropomorphizing of the meaning of the world God. It has also tried to deontologize God. In the same

observes that our one-sidedness carries with it an apocalyptic darkness – which he claims to be observable in both religion and science – and which could "prematurely terminate the human endeavour before it works its historical task."[17] The bifurcation is readily identified as matter (immanent) versus spirit (transcendent), and science versus religion, its consequences summarised as:

- consciousness is illusory
- evolution is purposeless
- we are aroused, yet crushed
- human life/effort is meaningless
- the cosmos is absurd
- our (earth) home is merely matter to be exploited and despoiled

It is worth noting at this point the importance of consciousness. C G Jung's work affirmed consciousness as the highest human value; that it's redemptive, that it affects not only ourselves and those close to us, "but, mysteriously, the whole world: past, present and future."[18] This is because unlike science, which is "derived from the Latin *scire* alone and therefore denotes pure knowledge detached from feeling or 'withness'", consciousness is "derived from the Latin roots *con*, meaning 'with,' and *scire*… Therefore consciousness signifies 'knowing with' an 'other'… combining head (logos) and heart (eros)."[19] If then, according to the materialistic paradigm, consciousness is illusory, and all value is based solely upon *scire*, pure knowledge, then humankind is truly rent asunder. Jung's insight, on the other hand, is that "the pursuit of consciousness, 'con-science', unites the goals of the two previous stages of Western history, namely religion and science."[20]

Rupert Sheldrake's 'question for materialists' remains unanswered: "If there are no purposes in nature, how can you have purposes yourself?"[21] Teilhard de Chardin, well ahead of his time, identified this malaise. He was acutely aware of the malaise in both Christian

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process, Man has equally devitalized the Earth. The Earth has been left for dead by the same token that Heaven has been deserted. Modern Man seems to have forgotten what the Vedas, the Bible and the chinese Classics affirm: that Heaven and Earth share the same destiny. With Heaven fading away, the Earth becomes no longer a living Being, but simply matter and energy; and the forces of nature are no longer living spirits and qualities, but merely "attributes" of nature." Raymond Pannikar, (Scott Eastham, ed.) **The Cosmotheandric Experience: emerging religious consciousness**, Maryknoll: Orbis Books, 1993, p149.

17 John P Dourley, p27.

18 Lawrence W Jaffe, **Celebrating Soul: Preparing for the New Religion**, Toronto: Inner City Books, 1999, pp23-24. Reflecting on the value of consciousness near the end of his life, Jung wrote: "Man's task is… to become conscious of the contents that press upward from the unconscious. Neither should he persist in unconsciousness, nor remain identical with the unconscious elements of his being, thus evading his destiny, which is to create more and more consciousness. As far as we can discern, the sole purpose of human existence is to kindle a light in the darkness of mere being. It may even be assumed that just as the unconscious affects us, so the increase in our consciousness affects the unconscious." C G Jung, **Memories, Dreams Reflections**, Rev'd ed., (Aniele Jaffe, ed. Richard & Clara Winston, trans.) New York: Vintage Books, 1965, p326.

19 Lawrence W Jaffe, p25.

20 Edward F Edinger, cited in Lawrence W Jaffe, p25.

21 Rupert Sheldrake, (2012), p155. It is interesting to note here an unexpected similarity, between the modern metaphysical materialist position, and the theological stance which has dominated Christianity for centuries. Namely, that, though theoretically affirmed as good, nevertheless God does not in fact need humankind (or the cosmos for the matter), God being utterly self self-sufficient, the cosmos being thoroughly contingent. Alan Richardson (ed.), **A Dictionary of Christian Theology**, London: SCM, 1969, p73. Brian Swimme makes the interesting parallel observation about science: "Perhaps this was necessary; the scientific enterprise needed austere isolation from both the animistic attitudes of the tribal period and the spatial cosmologies of classical civilizations. Scientific understanding was too new and too different to fit into previously existing modes of human awareness; it needed to establish its own canons, procedures, and experiments without reference to anything outside itself." p39.

theology and scientific 'orthodoxy', and strove mightily to bring it into open discussion in the church: "How could man *fail to be robbed of his zest for action* by this alleged revelation of his radical uselessness?"[22]

## 2. Rupert Sheldrake's Morphogenic Fields

Having set the scene, I turn to the first of the four theories to consider in this exploration. Firstly, Rupert Sheldrake's hypothesis of morphogenic fields to explain biological development; specifically, that capacity to develop as goal-directed entities and structures.

The term morphogenic is composed of two Greek words: *morphē*, which translates as form, shape, outward appearance; and *geneō*, recognisable as genesis, birth, lineage, descent. So this is about the way in which a living organism comes to create, develop its shape, structure, and *form – not* it's energy or mass.

A 'field' is a *non-material region of influence* that structures the energy of a system.[23] 'Field' is easy enough to think about if we keep in mind the other fields which we now take for granted; gravitational fields, magnetic fields, and electromagnetic fields. Think of the school science experiment involving magnets, paper, and iron filings. Or think of the fact that we do not fly off into space, as a consequence of the earth's gravitational field which holds us. Or the fact that our TV sets and mobile phone can detect and receive invisible electromagnetic waves. Modern physics now also talks about the 'quantum field'; a zone of very rapid and chaotic fluctuation arising from a deeper sub-quantum-mechanical level. Fields are fundamental; not matter.[24] Morphic fields depend on a process called 'morphic resonance'; the formation of habits, patterns, a kind of collective memory in all self-organising systems.[25]

According to Rupert Sheldrake, "Living organisms exist because their ancestors were already purposive… [their] fundamental goal-directed activities were already present in the first living cells."[26] Sheldrake noted that no matter how hard materialists try to eradicate goals, ends and purposes – and in spite of the high priesthood of scientific orthodoxy declaring it to be heresy – they just keep coming back, repackaged in new terms, such as 'selfish genes'.[27]

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22 Pierre Teilhard de Chardin, (Rene Hague, trans.), 'The Contingence of the Universe and Man's Zest for Survival', in **Christianity and Evolution**, New York: Harcourt Brace Jovanovich, 1969, p225. "It becomes dangerous and virulent (because disheartening) as soon as, in a system of cosmogenesis, the 'participated being' we all are begins to wonder whether the radically contingent condition to which the theologians reduce it really justifies the pain and labour required for evolution. For, unless only individual happiness is to be sought at the term of existence (a form of happiness we have definitively rejected) how could man *fail to be robbed of his zest for action* by this alleged revelation of his radical uselessness?"

23 Judy Cannato, **Fields of Compassion: How the New Cosmology Is Transforming Spiritual Life**, Notre Dame: Sorin Books, 2010, p29.

24 David Bohm, **Wholeness and the Implicate Order**, London: Routledge & Kegan Paul, 1980, pp98-99.

25 Rupert Sheldrake, (2012), p99. "The formation of habits depends on a process called morphic resonance. Similar patterns of activity resonate across time and space with subsequent patterns… applying to all self-organising systems, including atoms, molecules, crystals, cells, plants, animals and animal societies. All draw upon a collective memory and in turn contribute to it."

26 Rupert Sheldrake, (2012), p131.

27 Rupert Sheldrake, (2012), pp44,45. He points out that Richard Dawkins' – most famous among contemporary metaphysical materialists – use of the term 'selfish genes' ironically posits an implicit *motivation*, an irrepressible desire, a goal, a purpose, to replicate. Rupert Sheldrake, (2012), p132. Likewise, the theoretical physicist Fritjof Capra observed, "The triumphs of nineteenth-century biology – cell theory, embryology, and microbiology – established the mechanistic conception of life as firm dogma among biologists. Yet they carried within themselves the seeds of the next wave of opposition, the school known as organismic biology, or 'organicism'." Fritjof Capra, p24.

To look more closely into morphogenic fields, Sheldrake's TV set analogy is helpful. The pictures on the screen require the material components of the set and the electrical energy that powers it – and these can be explained in purely materialistic terms, yes – but also on the *invisible transmissions* it receives through the electromagnetic field. Analysis of the components of the TV set cannot reveal the origin of the evening news;[28] an invisible, yet very real, field is required. The images exist prior to their appearance on the screen, they would still exist even if your screen didn't, and the field contains an *infinite number* of potential images. Sheldrake's hypothesis can be summarised:

- Self-organising systems consist of nested hierarchies of *holons*, or morphic units – at each level the whole is greater than the sum of the parts

- Morphic fields are fields of *probability* – like quantum fields

- Morphic fields contain '*attractors*' (goals) and 'chreodes' (habitual pathways) that guide a system to its end state

- Morphic fields are shaped by morphic resonance from all similar past systems, and thus contain *collective memory* – morphic fields are local, but morphic resonance is non-local (cf. Newton's 'spooky action at a distance', and quantum entanglement)

- Morphic resonance involves transfer of form, of in-*form*-ation [i.e. consciousness, mind], rather than energy

- The wholeness of each level depends on an organising field, a *morphic field* – organising shape, patterns, social behaviour and mental activity

- Whereas it is with difficulty that a form or an event appears for the first time in history, the *likelihood that it will recur* improves enormously after the first instance[29]

Sheldrake's hypothesis is the subject of debate, and by no means acceptable to scientific orthodoxy, which argues that it fails the fundamental test of falsifiability. Though Sheldrake himself claims it to be 'eminently testable', and that "evidence from many fields of enquiry already supports it."[30]

In the context of this discussion about spirituality in a materialistic age, the hypothesis of morphogenic fields offers a possible solution to the prevailing schism in western consciousness: between metaphysical materialism, as the philosophical/faith commitment/conviction that only what can be measured with a ruler can be proved to exist; and all forms of dualism, which to preserve the prevailing orthodoxies of both science and religion/spirituality effectively compartmentalise the western mind. "From a scientific point of view, the recognition of purposes or goals of plants and animals opens up a deeper understanding than a mechanistic approach can offer… If organisms at all levels of complexity are in some sense alive with their own purposes, this implies that the earth, the solar system, our galaxy, and, indeed all the stars have lives and purposes of their own. And so may the entire universe."[31]

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28 Rupert Sheldrake, (2012), pp177-178.

29 Lawrence W Jaffe, p30. Jaffe suggests that "This idea is relevant because it suggests that changes in the collective psyche can be brought about by changes in the consciousness of individuals."

30 Rupert Sheldrake, (2012), p101. Also Rupert Sheldrake, **The Presence of the Past**, New York: Fontana, 1989.

31 Rupert Sheldrake, (2012), pp155,338.

Motivated by a life-long passion to heal the schism in Western consciousness, Teilhard de Chardin considered that the matter of a living organism is drawn together and animated by its *form*, and spoke of the 'morphogenic influence of Grace'.[32] Likewise, resonances with certain of Jung's ideas are apparent, specifically:

- archetypes as cosmic ordering principles, i.e. goal-directed
- collective unconscious as collective memory
- synchronicity as a-causal (and non-local)
- psyche as primary, from which matter arises

## 3. C G Jung's Archetypes

In turning to Jung's theory of archetypes, I'm drawing on Daryl Sharp's summary as follows:[33]

> [Archetypes] are… an instinctive *trend*, as marked as the impulse of birds to build nests, or ants to form organized colonies.[34]
>
> Archetypes are systems of readiness for action, and at the same time images and emotions. They are inherited with the brain structure – indeed they are its psychic aspect.[35]
>
> It is not… a question of inherited *ideas* but of inherited *possibilities* of ideas. Nor are they individual acquisitions but, in the main, common to all, as can be seen from [their] universal occurrence.[36]
>
> Archetypes… present themselves *as ideas and images*, like everything else that becomes a content of consciousness.[37]
>
> So, an archetype is a primordial, structural element of the human psyche, an instinctive, universal tendency to form certain ideas and images and to behave in certain ways.[38]

For our purposes here, the three features of archetypes which are especially relevant are:

- as ordering principles
- their synthesis of immanence and transcendence

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32 Thomas M King, **Teilhard's Mysticism of Knowing**, New York: Seabury Press, 1981, p13.
33 Daryl Sharp, **Jungian Psychology Unplugged: My Life as an Elephant**, Toronto: Inner City Books, 1998, p37-39.
34 C G Jung, 'Approaching the Unconscious', in **Man and His Symbols**, p69.
35 C G Jung, 'Mind and Earth', in **Civilization in Transition**, CW 10, par. 53.
36 C G Jung, 'Concerning the Archetypes and the Anima Concept', **The Archetypes and the Collective Unconscious**, CW 9i, par. 136.
37 C G Jung, 'On the Nature of the Psyche', **The Structure and Dynamics of the Psyche**, CW 8, par. 435.
38 Daryl Sharp, p38.

- and as primary in terms of consciousness

From the point of view of this exploration into spirituality and materialism, these ideas about archetypes prompt questions, such as: Where does this 'primordial' 'trend', this 'impulse', come from? What makes them 'universal'? What is the relationship between this 'impulse', the 'possibility of an idea', and the freedom or otherwise for it to be embodied, acted out? We might just as well ask, where does the morphogenic field come from? Which is to immediately invoke the questions of spirituality at the very least, if not religion.[39]

In a discussion about spirituality, particular mention needs to be made of the archetype of the Self, "the archetype of wholeness, which functions as the regulating center of the psyche… a transpersonal power that is beyond the control of the ego."[40] Edward Edinger adds: "The Self is thus the supreme psychic authority and subordinates the ego to it. The Self is most simply described as the inner empirical deity and is identical with the *imago Dei*."[41] It's worth drawing attention to the fact that psyche is a 'self-regulating system'; and that the Self is a 'transpersonal power that is beyond the control of the ego'.[42] I highlight these because of the resonance with that strand of contemporary biology arising from 'systems thinking'. Systems thinkers claim that quantum physics has demonstrated that there are no parts, only wholes: "What we call a part is merely a pattern in an inseparable web of relationships."[43] And this means that: "Self-organization has emerged as perhaps *the* central concept in the systems view of life… The pattern of life… is a network capable of self-organization."[44]

I am struck by the very strong resonance between the idea of biological self-organising systems, the role of the archetype of the Self, considered a 'self-regulating system', and the hypothesis of morphogenic fields, self-organising systems consisting of nested hierarchies of holons, or morphic units. Moreover, that the Self as a transpersonal power beyond the control of the ego so resonates with the vantage point of the individual organism in relation to the morphogenic field; namely, that the field pre-exists and is beyond the control of the organism.[45] 'Attractors' within morphogenic fields seem to function remarkably like archetypes in the psychological domain, both manifesting self-resonance from their past, yet in neither case removing the freedom of the organism.

## 4. Virtual-State Actualization

39 I note, in passing, that Jung was adamant that he was not straying into the field of metaphysics, insisting that he was restricting himself to empirical statements regarding psychology, not metaphysics, distinguishing between the knowable 'God image' and the unknowable God; but also that this claim is in itself a matter of some considerable dispute as to Jung's honesty about the ambiguity in his own protest. See John P Dourley, pp34,36.

40 Daryl Sharp, p91.

41 Edward F Edinger, **Ego and Archetype: Individuation and the Religious Function of the Psyche**, Harmondsworth: Penguin Books, 1973, p3.

42 Daryl Sharp, p91.

43 Fritjof Capra, p37.

44 Fritjof Capra, p83.

45 Vitalists assert some non-physical entity, force, or field added to the laws of physics and chemistry to understand life, what Arthur Koestler called "the ghost in the machine". Fritjof Capra, p25,26. 'Organismic biologists', such as Capra, prefer to distance themselves from 'vitalists', such as Sheldrake, by asserting that life can be understood without the need for positing any kind of non-physical entity but simply by the understanding of 'organization'. Yet this does not account for the origin or source of the 'organizing relations'. No doubt, this is to avoid the problem of metaphysics!

Turning now to the quantum world, this exploration focuses on a specific hypothesis flowing out of researches into quantum fields, namely, 'virtual-state actualization', following the work of Lothar Schafer, a professor who works in physical chemistry, electron diffraction, applied quantum chemistry, and computational chemistry.[46] To get into this idea let me begin with the observation of mathematical physicist Henry Stapp regarding time, that, "The central mystery of quantum theory is 'how does information get around so quick?"… and non-locality, "How does the particle know that it was looked for in some far-away place and not found?"[47] The conclusion of at least some physicists is that information, analogous to mind and consciousness, is neither energy nor matter, and that it is now only possible to understand the universe by taking into account the informational, mind-like aspects of elementary particles: "The universe is of the nature of a thought or sensation in a universal Mind… the stuff of the world is mind-stuff."[48]

This means that, "since molecules are the basis of life and are quantum systems, no comprehensive view of the emergence of complex order in the biosphere is possible without taking the quantum properties of molecules into account. Quantum reality is the basis of all visible reality."[49] The result being that "one is led away from mainstream biology and to the view that the units of natural selection are not stretches of chromosomes but quantum states which actualize in chromosomes."[50] That's worth re-stating: natural selection is a matter of quantum states actualizing in chromosomes.

The essence of 'virtual states actualization' is this:[51]

- In the centre of all processes of emergence … we find *virtual states*
- every quantum system consists not only of the state in which it is observed, but also of *countless other invisible states that are vacant*
- when a particular molecule is observed in the state it occupies, other states also exist, but they are not real (materially) because they are *empty*
- all things contain *countless empty states* – space is not empty, but full![52]
- quantum chemists call empty states *virtual states*
- virtual states are mathematical forms, bits of *information,* probability structures
- virtual states can become real when a *system jumps* into them

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46 Lothar Schäfer, 'The Emergence of Consciousness in Biological Evolution and Quantum reality', in Thierry Meynard (ed.) **Teilhard and the Future of Humanity**, New York: Fordham University Press, 2006, pp109-134.

47 Quoted in Lothar Schäfer, p112.

48 The position adopted by astronomer, physicist and mathematician Arthur Eddington, cited by Lothar Schäfer, p112.

49 Lothar Schäfer, p114. Emphasis added.

50 Lothar Schäfer, p114.

51 Lothar Schäfer, pp115-116.

52 David Bohm, p242. "It is being suggested here, then, that what we perceived through the senses as empty space is actually the plenum, which is the ground for the existence of everything, including ourselves. The things that appear to our senses are derivative forms and their true meaning can be seen only when we consider the plenum, in which they are generated and sustained, and into which they must ultimately vanish." p243.

- when a molecule occupies a virtual state, that state is *actualized* – hence 'virtual state actualization'

- at that point virtual order becomes *actual order*

- all molecules, all systems, are centers of potentiality, virtual states which form a realm of potentia from which *something new is constantly emerging*

Physicist Katherine Freese writes that: "Every point in the universe is seething with [quantum] vacuum energy. Particle and anti-particle pairs [continually] pop in and out of existence."[53] The 'virtual' can become 'actual', and vice versa! In a more poetic tone, Brian Swimme, a mathematical cosmologist, puts it this way: "There was no particle, then there was… Particles boil into existence out of sheer emptiness."[54]

Pausing to take in these insights, I am struck by just how mind-blowing this quantum view of the world is. We are hardly prepared for its strangeness; that it's going to take us some considerable evolving to get used to the idea that what we had for many centuries reckoned to be 'solid', mere matter, is anything but! The consequences of quantum physics for biological development and evolution seem to be these:

- the order that evolves in the biosphere is not the consequence of random chance [cf. neo-Darwinism & metaphysical materialism] but from the actualization of virtual states whose order existed a long time before it was actualized

- the concept of 'descent' thus changes its meaning

- a second selection mechanism, *quantum selection*, must be considered, which drives evolution in tandem with natural selection

- [whereas] in the dictionary of Darwinians "genetic" means "passed on from ancestry" [merely strands of DNA]. In the quantum perspective of evolution, "genetic" means "expressed from virtual cosmic order."[55]

It's the concept of 'virtual cosmic order' which strikes me as so potentially relevant in our exploration. For virtual states are mind-like, not matter-like; and 'cosmic virtual states' are expressions of the background of the universe. "In contrast to Darwinism, the VSA hypothesis assumes the existence of an underlying nonmaterial and coherent order to all reality, a realm of potentiality which is at the same time *immanent*, because it is contained in the things, and *transcendent*, because it is not stored in visible forms and part of a virtual cosmic structure."[56]

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53 Katherine Freese, p198.

54 Brian Swimme, **The Universe is a Green Dragon: A Cosmic Creation Story**, Rochester: Bear & Company, 2001, p37. Swimme's 'boil into existence' image recalls the striking language of 14th century theologian and mystic, Meister Echkhart: "The life of the [Christian] Trinity, he terms a *bullitio*, and image of boiling or seething process which culminates in a necessary *ebullitio*, a boiling over into the reality of creation." John P Dourley, p129.

55 Lothar Schäfer, p126. It's also worth noting that, "In statistical analyses, the time available since the birth of this planet has frequently been judged to be not sufficient for a process in which life evolves out of nothing and by random variations. Considerably less time is needed for a process like VSA, in which complex order already exists in virtual states and is merely *revealed* by chance, compared to a process in which the complex order has to be *created* by chance." p122.

56 Lothar Schäfer, p120.

It's the potential for the VSA hypothesis to synthesise immanent reality and transcendent order which is so interesting and hopeful. Moreover, that "consciousness has found an exciting parallel in the quantum world," and that "It is now possible to think that the mental element [mind, in-*form*-ation] is the power of the universe."[57] This concurs with Richard Tarnas' philosophical conclusion that "the world's truth realizes itself within and through the human mind… the evolution of human knowledge is the evolution of the world's self-revelation."[58] Tarnas is at pains to make it clear that this self-realization, however, does not originate in humans, or 'from nothing', rather, "the bold conjectures and myths that the human mind produces in its quest for knowledge ultimately come from something far deeper than a purely human source."[59]

## 5. Teilhard de Chardin's Omega Point

This brings me to Teilhard de Chardin's concept of the Omega Point. Above all, his Omega is the hypothesis that the *immanent* and the *transcendent* are not two separate realities; but two aspects of an indivisible whole.[60] He declared that the opposition between spirit and matter is "the deep rooted origin of all our troubles."[61] He asks why religionists and scientists alike force people to choose between what he calls the *Above* and the *Ahead*; the aspiration of religion, and the aspiration of science, the 'within of things", and the measurable visible exterior,[62] "some kind of transcendency", "the prolongation of the inherent forces of evolution".[63] He lamented that his own church, and Christianity in general, posited creation as a static, supposedly perfect state before a 'Fall', even as he lamented that science failed to recognise its true vocation, the depths of a soul reaching out to the universe: "The achievement of Teilhard is that his Cosmic Sense came to include his scientific understanding of the cosmos as well as his Christian faith."[64]

Teilhard envisaged creation, rather, as a process not a state, a vast labour of becoming, a 'cosmogenesis'.[65] Crucially, the trajectory of cosmogenesis, the goal, the telos, is both *differentiating and unitive.*[66] It is a 'cosmic sense', primordial and pre-intellectual, a matter of immediate experience, a 'universal element', a psychic fact.[67] Thus, Jung's *unus mundus*

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57 Lothar Schäfer, p134.

58 Richard Tarnas, p435.

59 Richard Tarnas, p436.

60 Teilhard envisaged, controversially, that the divine requires evolution: "While, in the case of a static world, the creator … is still, on any theory, structurally independent of his work, and in consequence, without any definable basis to his immanence - in the case of a world which is by nature evolutive, the contrary is true: God is not conceivable (either structurally or dynamically) except in so far as he coincides with…, but without being lost in, the centre of convergence of cosmogenesis", 'The God of Evolution', in **Christianity and Evolution**, (Rene Hague, trans.), New York: Harcourt Brace Jovanovich, 1971, p239.

61 Teilhard de Chardin, 'The Atomism of Spirit', in **Activation of Energy**, (Rene Hague, trans.), London: Collins, 1970, p23.

62 Teilhard de Chardin, **The Phenomenon of Man** (hereafter abbreviated as **PM)**, (Bernard Wall, trans.), New York: Fontana, 1965, pp58-63.

63 'The Heart of the Problem', in **The Future of Man** (hereafter abbreviated as **FM)**, (Norman Denny, trans.), New York: Fontana, 1969, p275.

64 Thomas M King, p7.

65 "To our clearer vision the universe is no longer an Order but a Process. The cosmos has become a Cosmogenesis." 'The Heart of the Problem', **FM**, p274

66 "In truth it is impossible to keep one's gaze constantly fixed on the vast horizons opened out to us by science without feeling the stirrings of an obscure desire to see men drawn closer and closer together by an ever-increasing knowledge and sympathy until finally, in obedience to some divine attraction, there remains but one heart and one soul on the face of the earth." 'Pensees', in **Hymn of the Universe**, (Gerald Van, trans.), New York: Collins Fontana, 1970, p75.

67 Teilhard de Chardin, **Writings in Time of War**, p272.

and Teilhard's 'Omega Point' do share some resonance.[68] "By following the arc of complexification into the future, Teilhard envisioned the *Omega Point* on the far horizon of evolution."[69] He had grasped enough of what was happening in science, quantum physics in particular: "space-time is necessarily *convergent by nature*. Consequently, followed in the right direction, its boundless layers must coil up somewhere ahead in a point – call it *Omega* – which fuses them and consummates them integrally in itself."[70]

In rhapsodic language, Teilhard describes the Omega Point "the very axis of the cosmic vortex of interiorization",[71] a "Cosmic Flux of Convergence",[72] a "mega-synthesis of humanity",[73] the evolutionary adventure "a paroxysm of harmonized complexity,"[74] "the psychic convergence of the universe on itself."[75] "In Omega we have in the first place the principle we needed to explain the persistent march of things towards greater consciousness… gravitating against the tide of probability towards a *divine focus of mind* which draws it onward."[76]

So matter and consciousness are not 'two substances' or 'two different modes of existence; "but two aspects of one and the same cosmic stuff,"[77] with a goal, a purpose, a unitive trajectory. And this trajectory is like 'gravitation against the tide of improbability'; against the prevailing perception of the universe running down to disorder and collapse.

As a scientist, Teilhard was well aware of the counter-intuitive trajectory of consciousness and complexity, in light of the predictions of the second law of thermodynamics, better known as 'entropy'.[78] Yet his idea of the Omega point anticipated what at least some physicists now say - indeed may even be suggested by contemporary physics – regarding 'negative entropy', and 'far from equilibrium' conditions.[79] Thus, it is now argued, by some scientists at least, Teilhard's vision coheres with quantum reality:[80]

- an element of *consciousness* is active at all levels of reality

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68 Though it has to be stated that Jung clearly regarded the Christian myth as incomplete, one-sided, in need of completion. "Jung's psychology implies strongly that a one-sided emphasis on Spirit is now a major pathologizing feature in Western culture and that the wider spirit if his psychology seeks a reunion of Spirit with the much maligned body. Such a spirit would no doubt be of deeper hue and greater heat than the white dove and fire which symbolize the Christian Spirit." John P Dourley, p92.

69 Dave Pruett, p317.

70 Teilhard de Chardin, (Sarah Appleton-Weber, trans.) **The Human Phenomenon**, (a new edition & translation) (hereafter designated as **HP)**, Brighton: Sussex Academic Press, 1999, p184.

71 **HP**, p220.

72 Thomas M King, p27.

73 **PM**, p267.

74 **HP**, p186.

75 **HP**, p188.

76 **PM**, 271. Emphasis added.

77 Teilhard de Chardin, **The Heart of Matter**, (Rene Hague, trans.), New York: Harcourt Brace Jovanovich, 1978, p26.

78 "Omega is the principle we need to explain both the steady advance of things towards more consciousness and the paradoxical solidity of what is most fragile… Something in the cosmos… escapes entropy – and does so more and more." **HP**, p193.

79 Dave Pruett, 'The Arrows of Time', in **Reason and Wonder**, pp261-280. Further, "It appears that Teilhard considered the Omega point as the gateway to a transcendent reality outside of space-time… the assumption of such a reality is no longer in conflict with contemporary physics and may even be suggested by it. Lothar Schäfer, 'The Emergence of Consciousness in Biological Evolution and Quantum Reality', in Thierry Meynard (ed.), **Teilhard and the Future of Humanity**, New York: Fordham University Press, 2006, p130. Schäfer quotes the physicist Henry Stapp, "Everything we know about Nature is in accord with the idea that the fundamental process of Nature lies outside of space-time (surveys the space-time continuum globally), but generates events that can be located in space-time." p131.

80 Lothar Schäfer, p127.

- the *mental enters the material world* in a natural way
- the visible order of the universe is based on the principles of a *transcendent reality*
- reality appears not from nothing but from a *pre-existing complexity* yet to be actualised

Teilhard's vision of the 'work' of the Omega Point is truly cosmic in scope and scale: "Another world is born. Abstraction, logic, reasoned choice, inventions, mathematics, art, calculation of space and time, anxieties and dreams of love – all these activities of *inner life* are nothing else than the effervescence of the newly formed center as it explodes onto itself."[81] This 'pre-existing complexity' [ordering-principle] that Teilhard called the Omega marks the end and completion of the empirical process outside [transcendent] of space-time.[82] Foreshadowing Jung's assertions regarding the ethical imperative of individuation,[83] the task for the human person, 'anthropogenesis', is to orient their efforts in the direction of this 'cosmogenesis', this synthesising whole; an 'undivided wholeness' which is now the assertion of quantum sciences.[84]

## 6. Conclusion

Brian Swimme identifies the challenge before humankind in striking terms: "The human is dangerous precisely because the universe is sublime… Can the cosmos survive the vision of its own beauty?"[85] I would elaborate his question: 'The human is dangerous precisely because the universe [conscious of itself through human consciousness] is sublime… Can the cosmos [in human consciousness] survive the [scientific / metaphysical materialist / supernaturalist] visions of its own [orthodoxies'] beauty?' John Dourley sums up Jung's question to the religion side of the equation: "the overriding question that Jung's reading of the spiritual state of the modern psyche poses is whether or not Western Christian culture can become whole and remain Christian."[86] Dourley concludes in the negative. Though he approvingly agrees with the assessment of Christian theologian Paul Tillich, in asking: "How can humanity deal with its inescapable faith-engendering facility without being destroyed by it?"[87]

I would add that a similar question needs to be put to that widespread non-self-reflective 'faith' in science: can Western *science* become whole and *remain scientific*? How can humanity deal with its inescapable scientific-materialism facility without being destroyed by it? Can we transcend the centuries-long bifurcation of supernaturalist religion and

81 **PM**, p183.
82 Cited in Lothar Schäfer, p129.
83 See John Dourley, pp67-74.
84 "Thus, the classical idea of the separability of the world into distinct but interacting parts is no longer valid or relevant. Rather, we have to regard the universe as *an undivided and unbroken whole*. Division into particles, or into particles and fields, is only a crude abstraction and approximation. Thus, we come to an order that is radically different from that of Galileo and Newton – the order of *undivided wholeness*." David Bohm, p158.
85 Brian Swimme, p75.
86 John P Dourley, p57.
87 Paul Tillich, cited in John P Dourley, p136.

metaphysical materialism? Can we transcend being simultaneously aroused and crushed? Can we reunite with the ground of our being?[88]

It is all too obvious that scientific materialism, capitalism and globalism have not made our world safe.[89] At a time when the leader of the supposedly most advanced nation on earth shouts like an adolescent in the playground in 140-character 'tweets', Vaclav Havel's 1994 warning of the stakes is worth re-stating: "We stand helpless before [the global challenges] because our civilization has essentially globalized only the surface of our lives… Only someone who submits to the authority of the universal order and of creation, who values the right to be part of it and a participant in it, can genuinely value himself and his neighbors, and thus honor their rights as well."[90]

Each of the four theories explored here individually suggest some direction in terms of the depth-ing, re-grounding required. Considered together, I am intrigued by the resonances, and bring this exploration to a conclusion by setting them out in the form of a kind of mandala; since as Jung pointed out, a mandala is an archetype, the psyche's effort at ordering and containing the mystery, humankind naturally mandala-making, in an effort to transcend the opposites. So I conclude this reflection with an invitation to a kind of collective meditation upon a mandala depicting those overlapping characteristics found in all four hypotheses:

- a transpersonal / transcendent function is necessary to understand reality – a non-local, non-material region of influence, something deeper than a human source, yet grounded in the human, in matter

- life is purposive, has a trajectory, the infinitely virtual pre-existing order, becoming actualised, negatively-entropic

- life systems are self-organising, and complexifying and unitive

- consciousness / information / mind is primary, involving collective memory, self-resonance, and involving all levels of reality

The mandala (Fig. 1 below) is an invitation into wholeness, through an integrating con-science, consciousness. "The enlightened human consciousness," Jung declared, in spite of his claims to make no metaphysical statements, "breaks the chain of suffering and thereby acquires a metaphysical and cosmic significance."[91]

Rather than 'praying for intelligent life out in space' we seem to be invited, instead, to labour towards a complexity-unity not yet manifest, but which is the natively-evolutive trajectory of cosmic consciousness.

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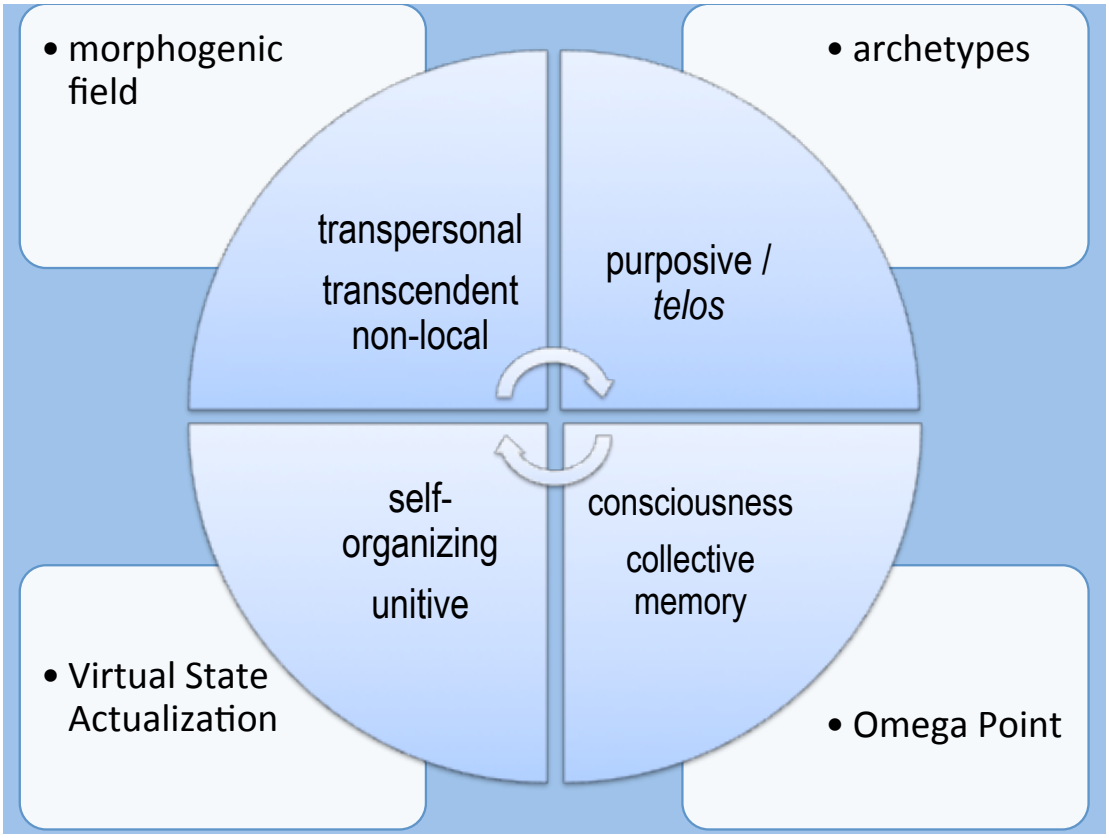
88 At the end of his grand exploration of the sweep of Western consciousness Richard Tarnas concludes: "The collective psyche seems to be in the grip of a powerful archetypal dynamic in which the long-alienated [masculine] modern mind is breaking through out of the contractions of its birth process… to rediscover its intimate relationship with nature and the larger cosmos… *For the deepest passion of the Western mind has been to reunite with the ground of its being*… the great feminine principle." Richard Tarnas, pp440,443.

89 Vaclav Havel, Liberty Medal Speech. https://constitutioncenter.org/liberty-medal/recipients/vaclav-havel Havel concluded that transcendence is the only real alternative to extinction. "Politicians at international forums may reiterate a thousand times that the basis of the new world order must be universal respect for human rights, but it will mean nothing as long as this imperative does not derive from the respect of the miracle of Being, the miracle of the universe, the miracle of nature, the miracle of our own existence."

90 Vaclav Havel. Emphasis added.

91 C G Jung, Letters, vol 2, p311. Cited in Lawrence W Jaffe, p14.

Figure 1.





david@spiritusconsulting.au