

*A Different Kind of Space*

Laurence Newey

Good evening friends and welcome to the Festival of Libra. The keynote of the esoteric worker in Libra is “*I choose the way that leads between the two great lines of force*” and this clearly portrays the energetic nature of the spiritual life between the great poles of spirit and matter. It is here between them that the esoteric worker must learn to stand in a state of dynamic tension, relating them to one another through the creative mind.

Deep within the human psyche, the conflict between spirit and matter rages in need of mediation through the enlightened mind. And through the evolutionary process, every human being is slowly and painfully learning the lessons of how to do this until the time will come when harmony is achieved and freedom gained from the cycle of rebirth. In the next round of systemic endeavour, this achieved synthesis in consciousness will be the starting point for further advancement. New characteristics of spirit and matter will then reveal themselves, challenging the then superhuman mind to unite them at a more sublime level of vibration – achieving in the process even greater expansions of consciousness.

This is a theme around which we will be building a group thought form to work with in our meditation tonight; but before going on, let’s pause for a moment to gather in our thoughts to a point of group tension and then say together the Affirmation of the Disciple:

*I am a point of light within a greater Light.  
I am a strand of loving energy within the stream of love divine.  
I am a point of sacrificial Fire, focussed within the fiery Will of God.  
And thus I stand.*

*I am a way by which men may achieve.  
I am a source of strength, enabling them to stand.  
I am a beam of light, shining upon their way.  
And thus I stand.*

*And standing thus revolve  
And tread this way the ways of men,  
And know the ways of God.  
And thus I stand.*

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In the modern trend towards materialism, there is no universal acknowledgement of spirit. Standard cosmology considers Life to have risen out of matter accidentally while cognitive neuroscience regards consciousness as an illusion. This view of consciousness arises from experiments showing that the brain takes several hundred milliseconds to process and translate a sensory input. Consequently, in conversations between two people, each person generally responds to what the other has said before the brain activity that correlates with processing speech has transpired. The conclusion is that dialogue takes place non-consciously – we respond to one another before our brains have processed what has been said and we are just under the illusion that we are in conscious control after the event. In other words, consciousness is epiphenomenal – a dream state in the effervescence rising from particles of matter in motion.

This is the bizarre conclusion of some of the sharpest minds in the world of those who regard matter as the fundamental reality. Equally lacking however is the stance of those who

renounce the sanctity of matter through a fundamentalist religious or mystical persuasion and who, bypassing the reasoning mind, bring little discrimination to bear on their spiritual experiences. Those who are endeavouring to find a more balanced perspective of reality stand between these two extremes, resonating with the great truth that spirit and matter are, in essence, the same – one spiritual substance at different rates of vibration; in Helena Blavatsky's words: "matter is spirit at the lowest point of its cyclic activity and spirit is matter at its highest".

From this esoteric perspective of the continuum of spirit, the scientific investigations of consciousness can offer some helpful insights. Consciousness does indeed rise up out of matter when it reaches a certain level of complex organisation. However, the life force behind consciousness isn't spontaneously generated at this point for all matter is thrilling with life and has consciousness latent within it. The truth is that it's only at a certain stage of complexity that this becomes recognisable to human perception and can be examined with scientific instrumentation. But aside from this, a good bridge between the material and spiritual perspectives can be found in the thinking of Bertrand Russell, a great agnostic philosopher, who proposed that consciousness exists, not in physical space, but in non-physical, perceptual space. In other words it doesn't reside in the same type of dimension as that of spirit-matter.

To illustrate the thinking behind this idea, we can take the classic example of looking at a finger. When the image of our finger falls on the retina, it is immediately digitized into a stream of electric impulses that race through the pitch black interiors of the nerve fibres into the brain. But somehow, the image then magically reappears in the brain as a virtual object, and furthermore gives rise to the illusion that it is not in our brain but outside of our head. Our brain has performed a biopsy of the light reflected from our finger and projected it back to the source. The big question then, is where is reality – inside the brain or outside of the head where it appears to be? Those who follow Bertrand Russell's reasoning would say neither – the dynamics of consciousness occur in a different kind of space parallel to the objective physical space of function.

This is taken further by Dr Peter Walling, a clinical Anaesthesiologist at Baylor University Medical Center in Dallas, who has been researching the dynamics of consciousness. He does this by examining the fluctuations in the electric current flows within the brain cells and transposing the data into a geometrical representation of their changing dynamics. Out of the seeming chaos of brainwave activity, he found an ordered geometry subtly operating behind the workings of consciousness. It was also discovered that certain patterns reoccurred and were tending towards specific geometrical archetypes – what are known in the mathematics of Chaos theory as "fractal attractors". The evidence seems to be pointing towards the existence of an abstract mathematical dimension in which consciousness functions and is evolving. Dr Walling believes that as sensory impressions from the outside world reach the brain in the form of electrical signals, the brain transfers them into a higher dimensional structure in non-physical space, and the geometry of this space is the basis of conscious thought.

A vital part of this theory rests on what is known as gamma wave synchrony within the brain. Neuroscientists generally agree that this measurement of brain activity best represents consciousness. Gamma wave synchrony occurs when the frequency of neural firing reaches 40-100 Hz in an orchestrated fashion all over the brain – all the different data coming into the brain being brought into synchronous activity. Research on patients coming out of anaesthesia corroborates this, as the regaining of consciousness is matched by a gamma wave ascent that eventually reaches the point where coherent thought is possible again. Further research shows that the more a subject is able to concentrate his thinking, the more gamma synchrony is present in the electrical activity of the brain. Researchers at the University of Wisconsin-Madison have found that during meditation, Zen Buddhist monks show an extraordinary synchronisation of brain waves at this frequency. "While meditating, the monks produced gamma waves that were

extremely high in amplitude and had long-range gamma synchrony, the waves from disparate brain regions were in near lockstep, like numerous skipping ropes turning precisely together. They show that spiritual harmony requires coordination of otherwise scattered groups of neurons.”<sup>1</sup>

Dr Walling’s study of the dynamics of gamma wave synchrony has only recently been possible due to the power of computer enhanced data, and so the challenge is now on to see how the geometry of consciousness in perceptual space relates to the geometry of the brain in objective space. And a good place to start is with what they both have in common – their fractal geometry. A fractal is a geometrical pattern that is repeated at an ever decreasing scale to produce irregular shapes and surfaces that don’t occur in classical geometry. This property of fractals is known as “self-similarity.” A good everyday example is a tree. A tree grows by repeating the simple process of branching which means that a little piece of the tree, like a twig, has the same general shape as a bigger part, such as a branch, which in turn is similar in structure to the entire tree. Scientific investigation has shown that the brain cortex is fractal in nature – that is, smaller structures within it exhibit the same general pattern as the cortex itself over all spatial scales.<sup>1</sup>

As Dr Walling has discovered, the dynamics of consciousness are also fractal in nature, so clearly the crossover point between the realms of consciousness and matter relies on fractal geometry of some kind. Consciousness requires sympathetically shaped receiving or docking stations in matter, that can receive its communications from perceptual space and send objective information back to it; and this communication exchange occurs through fractal patterns based on hexagons. The first hexagonal pattern is in the part of the brain that is responsible for memory and navigation, the entorhinal cortex. When a graph is plotted of the way these neurons fire in laboratory animals as they move about the place, it is seen that they are synchronised into hexagonal patterns. Animals and human beings have a hexagonal spatial representation of the surrounding environment. This is in harmony with the esoteric perspective as the number 6 is associated with form and manifestation. As the lower three planes of the solar system form the prison of man, 666 is regarded as the number of materialism, the number of the dominance of the lower mental, astral and physical worlds prior to the process of reorientation towards the higher spheres.

The same hexagonal patterns are discovered at deeper levels within the entorhinal cortex but at finer scales. The interior of brain cells have a structure known as microtubules that are cylindrical in shape with a hexagonal lattice on their surface. This hexagonal surface is perfectly suited to the flurries of tiny snow-flake shaped enzymes that are attracted to them by electrostatic affinity. These biological catalysts (known as CaMKII) are hollow double hexagons. To the esotericist, it is their hollow nature that is interesting as this always signals a crossover zone between the inner and outer planes – the hexagonal vortices that each of these proteins frames is likely to hold the secret of information transfer between consciousness and the physical brain. As these little proteins land upon the microtubule surface, they extend six legs like tiny landing craft, each foot acting like a ‘bit’ of information – the six bits making one ‘byte’. Through this interaction, dynamic patterns are formed on the hexagonal lattice of the microtubules, and some insightful researchers think that this controls and orchestrates neural firing patterns in the brain.

Another anaesthesiologist, Professor Stuart Hameroff of Arizona University and the Center for Consciousness Studies suggests that, in the brain, this array of fractal hexagons in descending scale correlates with conscious experience. Consciousness can move up and down various levels in a fractal-like brain hierarchy similar to a musical scale. At the frequencies between 40 and 100 Hz, gamma synchrony appears as a pattern of neural oscillation. This moves to 10,000 hertz in microtubules and on to even finer scales at the level of megahertz,

gigahertz and even terahertz. Professor Hameroff points out that these are all separated by three orders of magnitude which is the optimal scale for fractal hierarchies to appear with their self-repeating patterns. He compares these octave scales to the Lokas of eastern philosophy – loka being a Sanskrit term for “world” in Vedic literature. As consciousness is focused in concentrated thinking or meditation, it moves further down the fractal hierarchy of the brain, the frequency of the electromagnetic signals increasing dramatically until they are so rapid, that consciousness can be said to be operating independently of physical brain matter – in the perceptual space of one of the subtle worlds or lokas.

But it is to Dr Walling that we return to for the actual nature of consciousness whatever world or loka it may be functioning in – and this brings us back to the concept of perceptual space. Esoteric philosophy states that consciousness arises from the interaction of spirit and matter, so it’s not unreasonable to consider it as existing in a different space to the seven planes we normally think of in connection with occult science. Consciousness will never be discovered as a substantial “thing” with a specific location, even on the highest spiritual plane imaginable; for whatever plane life is functioning on, the dynamics of consciousness operate in the perceptual space related to that plane – a dimension apart from all others. It is here that consciousness resides in an indefinable, intangible realm of mathematical relationships – God geometrises and consciousness is the result – or as Dr Walling would have it, Consciousness is the Anatomy of the Soul.

The soul of anything can be described as a geometrical pattern that forms a point of tension between spirit and matter relating them together in a harmonious and dynamic manner. When esoteric teachings refer to the Soul of a human being residing on a higher plane – it is in the perceptual space of that plane not the objective plane itself. The Soul has a vehicle of expression on the higher planes that is referred to as the Causal body – a temple of fiery, geometric splendour – but this is not the soul itself. The soul of any being – great or small – resides at differing levels of perceptual space corresponding to the various systemic planes of activity on which it functions. The challenge of life on any plane of existence is to stand at a point of tension in that plane’s perceptual space, detached from its objective environment. The substance that makes up the phenomenal environment is regarded as the not-self and consciousness has to overcome its indiscriminating affinity with it in order to perceive correctly and evolve further.

The raising and focusing of consciousness onto a higher plane in meditation means that consciousness is raised into that corresponding higher perceptual space, but it doesn’t necessarily mean that the phenomena of that inner plane will suddenly be perceived. There will, however, be fleeting moments of a higher type of awareness mixed in with normal brain consciousness. It is the structure of awareness that changes and this change is best described in terms of quality. Esotericism regards ‘Quality’ as synonymous and interchangeable with ‘Soul’ and so quality is also determined by the ever changing geometrical relationships between spirit and matter in perceptual space.

The most beautiful and powerful quality of which the human being can become aware is Love – the spiralling force which forms the basis of sacred geometry – relating spirit to matter in correct proportion through a hexagonal building pattern. This double helix of life-building force is found everywhere in form nature, nurturing and raising all on its evolutionary path. Love is pure quality – pure consciousness – the soul of all things – that which relates the strands of spirit and matter together in the ultimate double helix. Love is the quality evolving in perceptual space – the product of an unfolding divine geometry of consciousness – and as such it is here that perfect relationships are formed and unity and oneness with all that lives and breathes is found. The beautiful gift of Libran energies stimulates our insight into this process as indicated in the keynote: *“I choose the way that leads between the two great lines of force”*.

As we go into our meditation now, we can reflect on the high concentration and resulting spiritual tension that our work involves and the Gamma wave synchrony that we are creating and sharing as a group service. Our synchronized efforts conduct us into an enhanced state of resonance and sensitivity with one another and with those great extra-planetary forces that are seeking entrance into human consciousness at this time. We enter into the perceptual space of divine geometry, contacting the various patterns and qualities that conform to the quality of Love, seeking to draw them down into the hearts and minds of humanity. In the words of the mantram of unification:

“Let the soul control the outer form and life and all events,  
And bring to light the love which underlies the happenings of the time.

Let vision come and insight.  
Let the future stand revealed.  
Let inner union demonstrate and outer cleavages be gone.  
Let love prevail.  
Let all men love.”

1. *Zen Gamma* Scientific American <http://www.scientificamerican.com/article/zen-gamma/>

Ref: *Consciousness: Anatomy of the Soul* Peter T. Walling and Kenneth N. Hicks