

# TOWARDS A UNIVERSAL MANDALA: THE MYSTERY OF THE MEANING OF LIFE

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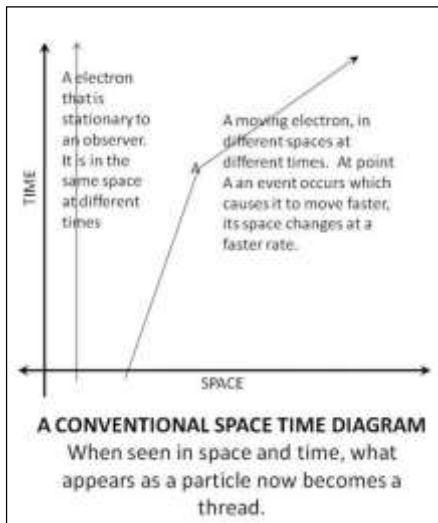
*ABSTRACT: This article presents the idea that the latest scientific theories present a radical new understanding of who we are in the universe, and the way we build a bridge between the past and the future through our engagement in the world, the source of Dragon Dreaming.*

## TABLE OF CONTENTS

WHAT IS THE MEANING OF OUR LIFE?.....	2
WHY DO I SHARE THIS STORY? .....	7
UNIVERSAL MANDALA.....	12
SUCCESSFUL FOR PROJECT IN DRAGON DREAMING.....	18
CONCLUSION .....	21

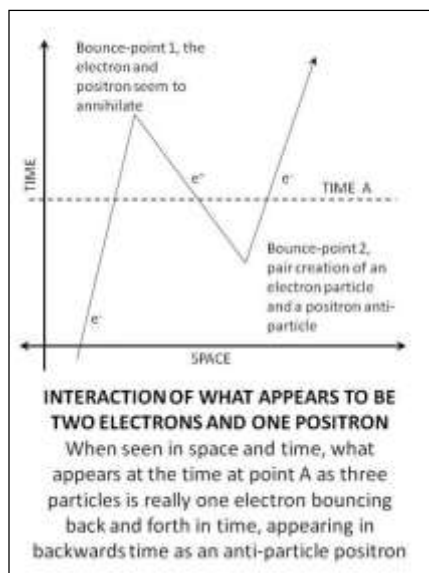
## What is the meaning of our life?

At the age of 25, whilst hitch-hiking from London to Lyon in France, I felt for a while that I had discovered a deep meaning of the nature of life, the pattern behind the pattern of daily existence, and the essential nature of the structure of the universe itself. I had a friend, a deaf physicist who was then working on his post-doctoral studies at the Imperial College, London, who had introduced me to the gauge theories of the physicist Richard Feynman, that lay at the heart of the development of Quantum Chromodynamics, which had seemed to unlock the secrets of the nucleus of the atom.



Feynman sought to uncover the mystery of why all electrons for example, appear to be identical, indistinguishable from each other. Feynman's gauge theory proposed that rather than being seen as discrete entities or separate "things", when viewed in the fourth dimensional manifold of the space-time continuum, particles would appear as threads, appearing and disappearing like ghosts through interactions with other particles. Specific gauge particles appeared, transferring momentum, electric charge, spin and mass from a particle at one state to another. Feynman had studied how according to the famous equation  $E = mc^2$ , not only could matter be converted to energy, as in nuclear explosions,

but also energy, if at sufficiently high states, could be converted back into matter. This always occurred through the creation of pairs of matter and antimatter particles. Feynman found that if we followed the antimatter "thread", in our universe, the antimatter appeared to be an elusive and short-lived phenomenon, which almost immediately collides with a normal matter particle annihilating itself with an enormous release of energy in mutual annihilation. Feynman knew that an electron, encountering a gauge particle of sufficient energy would change its momentum or velocity through time, shifting its path to a new trajectory. He then had the counter-intuitive thought that perhaps on encountering the energy of the annihilation the electron could be considered to bounce backwards through time itself, appearing as its own anti-particle, which then meeting the energy of pair creation, reversed direction to move forward in time again. Thus rather than three particles, two separate electrons and an anti-electron or positron, we have one electron bouncing backwards in time as a positron, before bouncing forwards again as the other electron. Antimatter could in this way be considered to be identical with normal matter, travelling backwards through time, from the future to the past. Eventually when encountering another burst of energy, it would be pushed back into travelling forwards in time appearing once again as an electron. Thus rather than "pair creation", there was instead a gauge reaction where a backward travelling electron, appearing as an antimatter positron, turned, to travel forwards in time again. Similarly "pair annihilation" was in fact an



energetic event where a normal electron turned to travel backwards in time, appearing as an antimatter positron. The antiparticle was identical to a normal particle with its direction through time reversed, a miniature time traveller that could go backwards to meet and annihilate itself travelling forwards through time. The reason why all electrons appear the same, Feynman had discovered, is that in the whole universe there may be only one electron!

The implications of this theory, for which Feynman won the Nobel Prize in Physics seemed to me to be astounding. Not only did it appear that all electrons were really only one particle, created at the beginning of time and space, but the whole of the material universe

could in fact made from this one particle, in various guises, bouncing backwards and forwards, between the beginning and the end of our universe, weaving all the stars, galaxies, planets and our bodies and ourselves as a result of this process!

Of course there are many problems with such a view of the cosmos. One problem is that there are not equal numbers of electrons and their antimatter doppelganger, the positron, as there should be if Feynman's view was correct. Or are there? Electrons are bound together with positively charged protons to form hydrogen atoms, the most common normal material particles in the universe. When the unstable neutral particle becomes a stable proton, through the addition of a positive charge exactly equal and opposite to that of the negatively charged electron, it actually decreases in mass by about the weight of a positron. We are left with the thought, "are protons in part positrons in disguise?" Protons, like electrons appear to be stable particles, but Quantum physics suggests that protons may themselves be unstable over incredibly long time spans, decomposing into a number of smaller particles as time itself comes close to its end, including a positive electron. The reason why a proton has a positive charge, exactly equal to the negative charge of the electron, thus may be due to the fact that a proton may contain somewhere a positron travelling in disguise. The neutron, a neutrally charged particle a little heavier than a proton, in this way may be considered to be the particle from which protons are made, with their heavier weight decreased by the addition of an antimatter electron. Perhaps the universe did in fact start as a "singular event", a single subatomic particle.

In 1971 this suggestion was brilliantly confirmed by French physicist Alain Aspect, who was seeking to test a little known aspect of the problems Albert Einstein had about Quantum Mechanics. The Heisenberg Uncertainty Principle had forever banished complete predictability from the material universe when it was shown that the accurate position and the momentum with which a particle was moving, could not be known completely accurately at the same time. The old theory that all that exists is atoms in motion was denied. Any attempt to calculate the particle's position, changed its momentum unpredictably, and an attempt to measure its

momentum would equally alter its position unpredictably. The changes appeared entirely random, and Einstein could not accept that “God would play dice with the Universe”. He proposed with Rosen and Podulsky that two particles that were interacting and which subsequently separated. Measuring the position of one particle, whilst simultaneously measuring the momentum of the other, would allow both momentum and position of both particles could be calculated. Heisenberg’s Uncertainty Principle would be violated and could only be upheld, it was claimed, through some kind of mystical communication between the two particles, at a speed faster than light, in violation of the Einstein’s own theory of Relativity.

Aspect’s experiment, showed in fact Heisenberg’s Uncertainty Principle in Quantum Mechanics was right and Einstein was wrong. The Heisenberg Principle was confirmed, suggesting that the two particles were somehow still in contact with each other through “non-locality”, which suggested that no matter how far apart they were they still remembered at one stage in the past “being one”. Gauge theory further suggested that the separation of the force of electromagnetism, which fills the universe with the gauge particles of light, at an earlier stage saw a convergence with the weak and strong nuclear forces, through the appearance of a so called “God particle”, a gauge particle called the Higgs boson, which gave the particles in the universe their weight. The search is currently occurring for the Higgs boson, as it is known that the Universe itself started smaller than a single sub-atomic particle, in which all space and time was contained, and everything was indeed, at this time, unified into a singularity. The memory of this time, Aspect showed, would be held by every particle in the universe. Feynman’s intuition that all of matter existed starting with a singular event at the beginning of time seemed strangely confirmed. It confirmed that we are all of us, forever linked in ways in which we do not even begin to understand.

This discovery was the source of my epiphany. If this singularity existed with the creation of time and space, what existed before the existence of time and space, and what would exist after time and space disappear? Just as for the universe as a whole can be considered to be a project or a process of transition, a bridge between two mysteries, I came to see that all of life is in fact a bridge, a bridge that we build as we travel between two such mysteries, what happens before the beginning and what happens after the end?

Where was “I” before my conception? Answers have been given in our historical cultures, often with great certainty, but when we examine these answers with any detail, we find that they dissolve into a sea of unknowing, and we are left with one central fact. The answer remains surrounded by mystery. When I die, where do “I” go? Again there are different cultural answers given to this question. Research into near death experiences has been suggested by some people to provide some evidence, but even this is disputable. But as before, as I examined this question at the greatest depth I could, I discovered once again we are left with only the unfathomable mystery. What *is known* is that my concrete existence was a thread, a complex dancing assemblage of gauge particles, moving through time and space between the deep past and the unfathomable future.

What I came to see at the age of 25 was that we are all, all of us, always voyagers, travelling across a bridge between these two great mysteries. But this bridge is not like any normal bridge, it is a project, a bridge of our own making, we are busy constructing this bridge as we travel. It is a bridge constructed of our experience, the lives we touch and are touched by, it is a bridge constructed of the differences that we, with our own lives, make in the world. I was later to discover that this mystical path lies at the heart of most spiritual traditions, including that of the oldest still existing culture on earth.

What is the difference I can personally make to this world? What change do you make? It was a stunning realisation that the world of what we see as separate “things” was totally illusory, and what existed in reality were flows, flows of matter and energy, flows of information and chaotic entropy, and what we saw as real “things”, particles, atoms, molecules, cells, planets, stars and galaxies, were in fact just temporary self-organising node points in a huge universal process of flow. It was to me a deep revelation of some essential mystery of the universe, that seemed to affect everything I saw, giving a deeper awareness of awareness itself, bridging into the deeper meaning and mystery of life. When talking with others of my epiphany afterwards, many could not understand what I was talking about. A glazed expression quickly came into many eyes. In other cases I found that such “Aha!” or “deep discovery experiences” were quite common at about this age in a person’s life, and it could give direction and meaning to our existence to peoples’ lives from then on.

Christina Baldwin describes something of this sudden bridge into her meaningful life.

*"I remember the day I really 'got' conscious. I remember it because I was twenty-four years old, living in Europe, on the first leg of my post-college quest to find my life's direction. I was old enough to know something was missing. Some hidden aspect of my own thought process needed to be revealed in order for me to progress.*

*I was living in England that early spring of 1970, working part-time and actively seeking something unknown to me. I wandered around London, especially the Soho district, the focal point of the counterculture. There was a head shop I hung around, soaking up the atmosphere, the incense and many cups of Jasmine tea. One day a man joined the conversation circle of tea cups and groovy attitudes. He leaned towards me and said, 'I have a message for you. What you seek you will find in the Chalice Gardens. Go to Glastonbury.' Before I could question him, he was gone.*

*Two days later I took the train to Bath and the autobus to Glastonbury. I visited the local abbey where Guenevere and Arthur are buried, wandered around the town looking for gardens. Two hours later, following directions, I was wandering the hillsides*

*of mythical Camelot. The Chalice Gardens turned out to be a large cemetery. In early April, these hillsides were covered with daffodils, nodding under a changeable sky. 'What am I doing here?' I kept asking. 'Who is trying to guide me? What do you want?' As no inward insight or answers came I grew nearly frantic: here I was at the beginning of my quest and I was failing it. Missing the signals. I felt stupid, alone and misled.*

*To rest and think it over I went into a small chapel. Thumbing through a Bible on the altar, I closed my eyes, let the book fall open wherever it willed. My finger came to rest on Isaiah 55:12.*

*Ye shall go out with joy and be led in peace; the mountains and the hills before you shall burst into singing; and all the trees of the field shall clap their hands.*

*Suddenly I was crying. I lay down in a long cart at the back of the chapel (only later did I realise it was a casket cart) and tried to calm myself as best I could. Taking long, slow breaths, I recited the phrase over and over: I shall go out with joy... I shall go out with joy. '*

*I think I napped briefly and when I woke, the sun, which had been clouded over all day, was flooding through the chapel window, a beam of light moving up my body in the waning of the afternoon warmth. I lay there accepting the caress. When the light reached my head, something changed: the light seemed to enter my mind and turn my whole being to light. I was changed. I had woken up to a larger mystery and I was a part of it.*

In my own case, the answers given by our sciences was the stimulus to looking more deeply at the question of "where I come from" and "where I go to". But the revelation was as strong as that described by Christina Baldwin.

From about the age of 18 I had already come to realize that I am woven into being within the cosmos like a thread of fibres in an enormous tapestry. There are four great sources of these fibres that I can recognisably detect. They can be illustrated by an experience of the last few days.

A little while ago I shaved off my beard for the first time in 35 years. I had grown that beard as a result of an experience I had at my last school as a trainee teacher, when, standing up in front of a class, the deputy headmaster poked his head around the corner and said, "Sit down, sonny, the teacher will be here in a minute!" He later recognised that I was in fact the teacher and

apologised to me in the staff room. The other reason for going bearded at the time was the need to create for myself a different identity following the tumultuous collapse of the first great love affair of my life. And so I grew a beard. The only time I shaved it off was at the age of 24, as a result of the fact that my fiancée had said, “I have never seen you without a beard” and so on the day before my marriage I shaved it off. She complained as a result that she had married a stranger, and said that I should grow it back. Jokingly she added “or I’ll divorce you!” She later did divorce me, but this time I kept my beard!

## Why do I share this story?

It is because when I shaved off my beard last week, the face that I saw gazing at me out of the mirror was not my own familiar visage. It was in fact a very different face. In that face I could see in the mirror I could clearly recognise the face of my younger brother, not clearly but very distinctly. And it was not the face that I remembered of the young man I was when I had last shaved. It was now the face of a much older man. Although the next door neighbour temporarily said I looked younger, in fact to myself I looked much older, and a great deal sadder than I believed I was. Seeing this face was a shock to my identity, the image or the picture I had constructed over the last 35 years of my life of who I think I am.

It made me think of the theory of the French philosopher Lacan who spoke about the “Imago”, the picture we create of ourselves. In my case the picture I had constructed of myself, that I saw unthinkingly every day in the mirror, was temporarily denied me as a result of my experience in shaving off my beard. And as I watched this stranger in the mirror, a stranger that was me, I came to recognise that “who I am” was not what I see in any mirror. Who I am is something else entirely. The pattern too had shifted.

Douglas Hofstadter in “The Mind’s I” has quoted Alan Watts, who stated he woke up one morning and discovered he had no head. He could see his arms and legs extending away from his body, but without looking in a mirror he could see no head. In place of the head was a blackness, out of which he was looking, like two overlapping holes through the inside of a mask. Without gazing into the mirror he had no idea what the mask looked like. This is the “interior” lived experience we all live out of, carrying it everywhere we go. Seen from this perspective we really have no idea of the “us” that others really experience of us.

For example when I look at a friend’s face in the mirror, the face looks oddly distorted. This is because no face is perfectly symmetrical and there are subtle but important differences between the right and left side of their face. In the mirror these sides are inverted, making them look different. But when I see myself, only I look normal. But my face too is inverted, and so even in the mirror I do not see myself accurately, but is also inverted. But because that is the only image of myself I see, to me it appears that that is normal. In this way our view of ourselves is our own personal creation.

We eat about two and a half tonnes of food every year. Nearly three quarters of this is water. In less than a fortnight all the water of my body is completely replaced. This is more than 70% of my material body. They say that every cell in my body is replaced every 7 years, and that in seven years time perhaps only a few atoms in my teeth or my bones of my previous body is still there. Different parts get replaced at different rates. The lining of my gut gets replaced daily, blood cells live for three days. Nerve cells and liver cells may last a lifetime, but the molecules that make up these long lived parts of my body get replaced constantly. I shed skin cells every where I go. Up to 90% of domestic dust is said to be human skin. So as far as my body is concerned, I am a little like the story of my grandfather's axe. "We replaced the handle three times and the axe-head twice, but it is still the same axe". Given this replacement of matter, my body is right now teaching the muesli I ate for breakfast all my memories of childhood. If my body did not have this capacity of teaching, and the muesli the capacity of learning, these memories would be gone for ever. Before gazing into the mirror at my shaved face I had come to believe that I was not my body, who I was, was a pattern that persisted despite the constant changes brought about through daily life. Each morning as I eat my breakfast, or drink water, or even breathe, I am taking in the matter that replaces the material of the "axe" that is me, reordering this matter into the pattern I would recognise in the mirror. This new material body every second has to be reordered, taught to structure itself into what people can recognise as me. The muesli I had for breakfast needs daily to be taught the memories of me, John, and assume my identity. In this way I too am only "a temporary node in a process of flow" created every second by this unceasing movement of matter and energy through me.

Reflecting on these thoughts some time later with a friend, who was visiting a house in Southern Switzerland she had last visited as a girl of 12, she wondered what was common between the young girl she remembered and the mature woman, more than 40 years later. We spoke of the patterning of DNA, and the patterns of meaning contained in Art and poetry that can link us back to who we once were.

This leads me to a second thread of the fibre that makes up "who am I?" I have seen photos of my father when he was a young man and it reminded me of myself at that age. Two lives came together to create me, to conceive me in the womb of my mother. Shortly after the death of my father, at his funeral, a woman, who had not seen my father for many years asked me was I my father's brother. I told her I was his son, feeling a little disconcerted to be confused with a man who was twenty three years older than me, but I must admit that in a real sense my father lives again through me. I remember him well. Recently my sister in law commented that I was resembling him more and more. In fact I can be accurate and say that genetically exactly 50% of him does so, and the other 50% comes from my mother.

I saw this connection closely in my friend who when visiting that house in Southern Switzerland with her aged father, sitting together in the garden of the house she remembered as a child. Despite the age and gender differences, the pattern of the two people, even the way they were speaking and the way they held their hands, and crossed their legs, was very similar. In a strange way it touched me deeply to see this pattern surviving across the two generations. This pattern



was a trans-generational flow of genetic, cultural and biological information, shaping the flows of matter into the patterns of similarity that I saw.

My mother was very close to her parents, and my father spent the last years of his active life meeting the needs of his aged parents. I am 25% of each of these people too. More than five years ago I met a cousin I had not seen in twenty years in a crowded Café, by chance. She eventually had to go, and as she stood up I recognised her hands. They were my own! Clearly we each had inherited these hands, their flexibility and strength from a common grandparent. I only once met my great grandfather, shortly before he died, and I am 12.5% of him. In this way I have 8 great grandparents, and every generation before the number doubles. It is only 29 generations back in the year 1275 and I have as many ancestors as there were people alive on the planet at that time! Of course this does not mean I am related to everybody back then, as most of my ancestors came from north west western Europe, and the same ancestors appear repeatedly on many lineages.

Not so long ago, genetically, too, modern biological science has shown us that in part we are all descended relatively recently from a single woman who lived about 150,000 years ago, probably in East Africa. Called “mitochondrial Eve”, because of the DNA in our mitochondria, the energy factories of our cells, that I share with all humans alive today she in one sense is the mother of all existing modern humanity. She was our mother’s, mother’s, mother’s, mother’s .... mother. This does not mean that she was the only woman alive. Nor does this mean that she provided all of our genetic make up. In fact, Europeans have about 4% of their genetic makeup inherited from Neanderthal humans, who separated from our lineage about 600,000 years ago, and Melanesians have a similar percentage from another sub-species that separated even earlier. But what this does mean is that she contributed all of the DNA that is found in the mitochondria of every cell in every body of every human alive, all soon to be 7 billion of us.

Science has also shown that all of the Y chromosome of every man is equally all descended from a single man “Y chromosome Adam” who lived possibly about 80,000 years ago. In the same way he was our father’s father’s, father’s father’s .... father. Between these people in this way, the man and the woman, our ancestors still fanned out to live on in us, and through us. My parents, who had five children and nine grandchildren, have now three great grandchildren who will someday possibly too have progeny. Through their great grandchildren “they” will live on in the world. In this way my parents are like the point at the focus of a lens, or like the constriction in an hour glass through which the sands of time have poured from the past to the future. They are the ancestral single threads spanning the great mysteries between their birth and death, from which I and my children have come.

In this way, biologically and also socially and psychically too, I am a thread, woven genetically and biologically like a thread of DNA out of many such pre-existing threads, stretching ever further and further back into the past, back to the last universal common ancestor (LUCA) of all life on earth, a simple bacterium swimming in the primordial sea nearly 4 billion years ago. All

of life is one. I am an Earthling, a part of this world, and every atom of my being, every cell and every thought is a part of this unfolding life.

And here we see that the threads of our individual lives are in fact part of this vast tapestry of the unfolding of human existence upon planet Earth. From the ages of Ice into the fires of global warming, the human tapestry has spread to penetrate the whole of the planet, and has now through its impacts has become a geological force governing the fate not only of our own species, but of all the living species that share this fragile world with us. What is the ultimate purpose of this vast unfolding? As humanity has engaged in participation with the world, we have come to touch and understand the light of the stars and to understand in some small way more of the place that surrounds us. While not giving us clear answers as to the meaning of life, it has vastly enlarged our vision of the life of which we are such a seemingly small part. Once again our lives are like a project, a bridge between our ancestors and our descendants.

But I am aware that many people who here such scientific explanations dismiss this evidence saying “this only refers only my body! I am more than my body!” you say. “I have a mind, a soul, an essence of me, too!” you add.

“Who is that?”, you ask, as this is closer your experience of “who am I?”

The face that gazed at me in the mirror, I felt, had a certain sadness about it. Our feelings do sculpt our face. The crease lines in our face as we grow older are created by the feelings we have experienced, by the muscles we use, and so we can recognise a sad face or a happy face. Perhaps the sadness I saw was created, in part, by the grief I had experienced seven and a half years ago at the death of Vivienne, my soul-mate and partner for more than 20 years. Perhaps it was more temporary, part of the difficulty of currently living in Germany, in a new culture, wrestling with a new language, in a new relationship. Or it may just have been the effect of 61 years of experience, living in the stressful world of the late 20<sup>th</sup> and early 21<sup>st</sup> century.

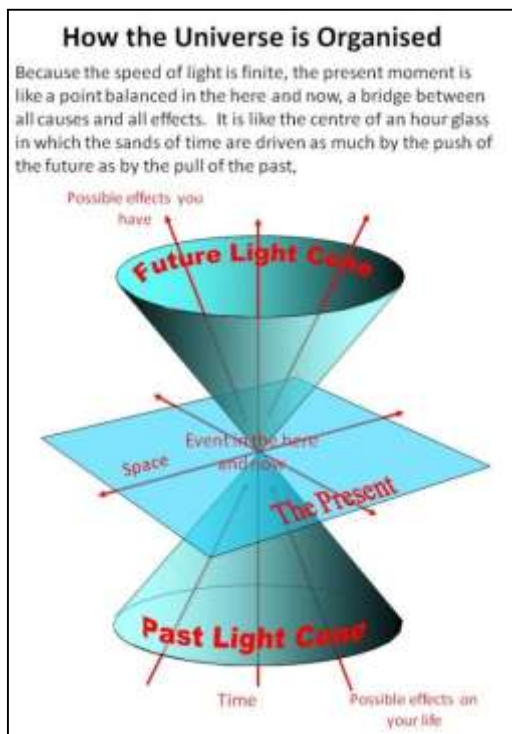
So “who am I?” Am I my thoughts? I am having these thoughts right now, squeezing them out of my brain to cause the movement of my fingers on this computer typewriter keypad, to make squiggles of shape upon this screen. You the reader will see these squiggles, either on a printed page or on a screen yourself, and you will interpret these shapes integrating them into your own thoughts. In this way a part of my thought has already become a part of you, and you cannot get rid of it. You can stop reading here and now, this will limit the effect, but you cannot rid yourself of the “memes” or mental viruses, the pieces of information that these words have already conveyed. You may think that this changes nothing but it does. The experience will have an effect, even a minute effect, but it is there, and if you persist in reading these thoughts it will get bigger. And so “who I am” is really like a ripple in a pond. Vivienne, my wife, who died 7 years ago lives on in the memory of every person she knew and even those strangers she met in the street. Recently I was contacted by the street names organisation of the city of Canberra, Australia’s national capital. They wish to name a street after her. And so she lives on inside me, and others who have been effected by her life. At times I can almost hear her voice, and in

many circumstances I can see here how she would have reacted in a certain circumstance. She lives on inside me, just as when I die, in a real way I will live on inside my children and the other people who I have met and who know me. In this way the “ripple in space and time” that was Vivienne too will be passed on till the end of human life on earth, and possibly beyond. We don’t need heaven to become immortal, as we submerge and integrate ourselves in the Earth our immortality is assured.

This ripple on the pond spreads still further out. I have told the story of her death to many and so in some way they are touched by her life and death too. A current friend, who has never met Vivienne, nevertheless, through me, has said she has come to know Vivienne quite well. And in this way the “essence” or “soul” of Vivienne lives on still in the world, spreading further and further like this spreading ripple in a pond. This ripple will continue to spread till the very end of time and space itself. Her “memory” is held inside the thoughts and actions of me and everyone who knew her. And these thoughts and actions shape the world I now live in, in new and different ways. In this way we learn to live beyond what others believe is the only way. As we expand and cast our eyes on our light upon the spreading ripples on the pond of the cosmos, so the darkness before us falls away, and the overgrown paths are seen as limitations in our belief, and in the light of the stars shows us new pathways.

This is true of each one person but it is also true of us all. Who am I? Once again we are led to recognise that I am a thread in the tapestry of life. I am being simultaneously woven and am at the same time weaving myself into that tapestry by the shuttle of my experiences of the present moment, on the loom of existence. And just as this thread had a beginning in the mystery of it all, so one day it will have an end. I am 65 years of age now. My son is 33. In another 33 years,

he will be 66, nearly as old as me, and I, if I am still alive, I will be 98. It could be by then my thread in the tapestry of life will have frayed and perhaps have ended, and its fibres dispersed, into all those other threads. The stone of John that makes the ripple in the vast pond of the cosmos may have finally crossed the surface of the pond and may now be resting silent at the bottom of the water, but the ripples of its passing through the world will keep spreading. This is the nature of a reality all of us can agree upon, irrespective of the differences of religious faith or philosophical belief. Unlike the content of other purely religious answers to the mysteries mentioned above this “reality” can not be disputed as “imaginary”. I believe that there is great beauty in this common reality of this emerging Universal Story of the spreading of these



ripples throughout the cosmos. And if this is so, then “who exactly am I?”

Seen from these perspectives, who I am is a part of a project, part of a process of something much larger, in which this larger reality is reflecting for an instant upon itself. I am part of a fragile culture, which as we shall see in so many ways seems bent upon its own self destruction. But science tells us that every atom of my body holds the memory of a much vaster existence, of having travelled through the heat of huge stars that were destroyed billions of years ago to make the sun and the Earth, and the family of its sister planets. The pattern of my DNA, woven and rewoven across the generations is linked back at least 3.8 billion years, nearly 4 billion years ago back to LUCA, the Last Universal Common Ancestor of all living things, as science calls it. Every thought I have is a reshaping of my experiences, drawn from the thoughts and actions of millions of people past and present, whose thoughts continue to live inside me, in my language, and in my silent reveries and dreams. In this way I am much more than the limitations imposed upon me by my culture, I am part of the whole of everything, caught on the bridge of the present moment reflecting back on that whole. Who am I? I am clearly a part of the whole cosmos, a project of time and space temporarily having a “John” experience.

So I am, like the universe itself, a bridge spanning between two mysteries, the mystery of where we have come from in the past and where we are going in the future. These are the elements that comprise in this space the “me-ness” of “me”. “But is there anything more than this to my experience of ‘I’ness?” Nicholas Kopernik, the Polish cleric known to us as Copernicus, when he showed us that the Earth was not the centre of the Universe, dethroned our view of the specialness of our subjective view. We now know that our life is just a miniscule grain in a vast immensity of time and space. Seen in such an immensity it is difficult to feel that any life has any meaning at all. Yet in another sense, science has shown we truly do live in the centre of the one and only universe we can ever know. Because the speed of light is finite, everywhere you look you are seeing, not the present but the past. Similarly, the effects of what you do, think and say, can never be felt in the present, they are only occurring in the future. Like ripples in a pond we are the true balance point, the bridge between past causes and future possibilities. The here and now, the “moving finger” of the present moment, contains all of the past and all of the future. It is indeed the “Everywhen”, a fourth time when all of space and all of time comes together.

## Universal Mandala

We can now create a Universal Mandala, in which everything that has existed, is existing or ever will exist, can be fitted onto a single page. Take a new sheet of paper. At the centre, at the bottom of the page draw a stick figure. This is you. To the right of this figure, things tend to get larger, to the left, smaller. The “human scale” – what we can reliably judge distance extends upwards to about 36 kilometres, this is the horizon in a flat landscape. To the left the smallest object discernable to the naked eye is about 0.05mm in size. If we mark these distances about a



horizon to dust mote, but the whole of the space discussed here is necessary to explain who we are and how we came to be.

The vertical side of the page you are holding represents time. Again in the centre to the left margin draw a little stick figure. This represents you in the present moment. The lower part of the paper represents the past, the upper measures the future. Our human scale of time – the average life span from birth to death of eighty years is but a small part of this picture. Below us, we know that human civilisations have existed for perhaps 5,000 years. But that is just a brief moment compared to the ages of ice that preceded us, and we now know that humans like us have been here walking the earth for at least 150,000 years, as hunters and gatherers, spreading out from our African home to populate the planet. Human life too is a product of a cause, the rapid evolution in brain size over the last 2.5 million years from creatures no longer existing, walking ape-like creatures of the high rift valley of East Africa. These creatures too are very recent compared to the deeper past. Sixty five million years ago an astronomical disaster wiped out over 78% of all living things. Previously there was a world of dinosaurs. Our tiny ancestors survived this megadeath, but even that world was the product of a still earlier catastrophe nearly 220 million years earlier where 98% of all life perished. Previous to that, other ice ages saw the creation of the coal forests we burn in our industries today, and prior to that we find complex life for hundreds of millions of years was confined to the sea. 530 million years ago, our fossil record demonstrates how complex multicellular organisms appeared amongst the single celled ecosystems that had dominated the life of the planet for most of its existence. At this age we see the first stirrings of the evolution of mind, the process that Teilhard de Chardin, mystic, priest and scientist, called Noogenesis. This is an amazing record of achievement. If tossing a coin means “heads” is survival of our children to reproduce in turn, and “tails” means extinction, we are in the situation of having tossed heads every generation for nearly 3.9 billion years, when life first began, through the process that Teilhard called Biogenesis. Our world, born from the spinning fires of an exploded star about 4.568 billion years in the past shows us that our bodies are star-stuff. But even further back we find that this star stuff too began. The expansion of our universe shows that it too had a beginning, a time when time and space were smaller, when stars and even galaxies did not exist, a time of immense heat and enormous energies that later cooled with expansion, an expansion which since the 1990s we now know has been going 13.73 billion (+ or – 120 million years)! We are now back to the singularity, smaller than a single sub-atomic particle, I have spoken of above and the creation of time and space itself, the beginning of Cosmogogenesis itself, the minus infinity from which all and everything began.

The veil of our ignorance is slowly yielding its secrets, and while many details still escape us, we can now sketch the outlines of what happened. “The First Three Minutes” of time after the creation shows us that an explosive expansion was occurring, an expansion that did not start and then spread, but was simultaneous and everywhere. At a time less than it takes light (at a speed of 299,792,458 metres per second) to travel across the diameter of a proton ( $0.8875 \times 10^{-15}$  metres), the whole of the universe, smaller in size than an atom, doubled in size and doubled

again. Smoothing the quantum fluctuations of its birth, within  $10^{-35}$  of a second it grew to the size of an orange  $10^{60}$  times bigger than before. The rapid doubling stopped as quickly as it had started, with the heat of the energy of the doubling, heating the universe to over 100 million million million million degrees ( $10^{32}$ ) degrees. Before this time all forces of the universe were one and in this tiny miniscule fraction of time, gravity, the oldest of all forces had separated. Within  $1/100^{\text{th}}$  of a second later, when the universe had cooled to a hundred thousand million degrees, the strong and weak nuclear forces had made an appearance. Then suddenly, for the first time the universe was filled with light. Matter and antimatter was constantly being created out of the light of pure energy and being almost instantly annihilated again. The density of the universe now was an inconceivable four thousand million times that of water. The continuing explosive expansion saw the temperature plummet. At three thousand million degrees, after 14 seconds, annihilation was now greater than creation, and most of the matter and antimatter disappeared, leaving less than 4% of the universe as what we would recognise as “normal matter”. Dark matter, having only a gravitational effect but otherwise invisible was 23%, and dark energy that today is accelerating the expansion of the universe was the remaining 73%. By three minutes after the birth of the universe at one thousand million degrees, the heavier particles began to clump themselves into heavier assemblages of helium nuclei, but nearly 80% stayed as hydrogen, which after 380,000 years cooled to under 5,700 degrees, cool enough to attract electrons and form stable atoms. At this moment the universe became transparent, the universal light, so hot, suddenly became dark for millions of years until the first stars could be born. But the expansion of space itself at 71.0 kilometres every second per Mpc (where a Mpc (or megaparsec is 3.26 light years, equal to just under 31 trillion ( $3.1 \times 10^{13}$ ) kilometres) continues to this day, as does the cooling of the universe. Today, the immense light that lit the creation is still there as microwaves, heated now to only 2.76 degrees above absolute zero. Since the 1960s scientists have been observing it this energy of the creation itself.

This is our past. Every sub-atomic particle of our body was present. Here we witness creation-ex-nihilo, creation of everything out of nothing. A gigantic fluctuation in nothing, and an event, the first event, the creation of a universe, happened. We are, with everything else, still inside this event. This is our home, the beginning of the conditions that made it possible, eventually, to sit here, writing to you. We are not strangers in this universe. We are a part and always will be a part of a process fashioned for our needs.

So much for the past, what of our future? We don't know how long our technological civilisation will survive, it may like so many others come crashing down. But we do know that the average mammalian species lasts about 2 million years before it either becomes extinct or evolves into something else. This is small time-span compared to the lifespan remaining for our sun. It seems that our star is middle aged, and over the next 5 billion years it will slowly get hotter, and will expand to consume its inner planets, first Mercury, Venus, and Earth, and even possibly Mars, beneath its growing fiery surface. We also know that as a result of this expansion, life on earth will come under extreme heat stress when the oceans start to boil, only

500 million years into the future. This life, if it is to survive, by then must have evolved the capacity to live in the spaces between the stars, or to be capable of shifting the Earth to a new and safer orbit (or perhaps both). Perhaps by then it will have achieved the Omega Point, where Gaia, the living planet as a whole has become fully conscious and self aware of itself. We may be part of that process. But we do know that the sun too will die. The outer envelope will be puffed out and only the tiny core will remain, shrinking into a white dwarf that fades to red and brown, and eventually becomes dark. Our earth life, if it is to survive then in this far distant time will have to have established itself around other stars in our galaxy, possibly coming together with other life forms evolving from other planets in our galaxy.

But these other stars too are not immortal. We have recently discovered that our galaxy is on a collision course with the nearby Andromeda galaxy, and the result of the collision will be to strip our galaxy of the gas needed to make new stars, and to create a gigantic circular or elliptical galaxy out of the barred spiral we currently inhabit. Star-making will eventually cease, and slowly even the longest lived stars too will burn out. Once again if life is to survive when our stars burn out life must come to shift between the galaxies to find younger homes. What happens then? We don't know. Does life ultimately escape the universe itself, to dwell, godlike, in the megaverse beyond? Does time itself come to an end in a void, similar to that void or vacuum state from where it started?

What we do know is that we do not experience life in a present moment, as our experience of time itself is determined by the speed of light. When you look at the moon you see it not as it is now but as it was 1.7 seconds ago. The sun you see as it was 8.3 minutes ago. With the nearest star, we see it with light that left 4.3 years ago. The stars of Andromeda show us what they looked like nearly 3 million years ago, before human beings existed, and when we observe the microwave background of the universe as a whole, what we see is nearly 13.73 billion years into the past, only 380,000 years after the creation of the universe itself. The further we look, the further back into the past we experience reality. All of past time thus comes to exist together in the present moment, the everywhen.

Similarly for the future, the consequences of you reading these words, as a pebble in a pond, stretch out at the speed of light, and in this way we are literally at the point of focus where two "light cones" one of the past and the other of the future touch. We are the constriction in the hourglass through which the sands of the future pour to become the past. This is the present moment across which your own existence is the bridge. On this single piece of paper, from the macrocosm to the microcosm, we have plotted all of space and all of time, and have mapped out the vast project of the universe as a whole.

Here we begin to enter into dispute and argument. Is that all there is? A materialist may well argue, "And that is all there is. Time will slowly fade back into the nothing from which it came." A religious person may even get angry at the discussion I have presented above, claiming that I "have missed the real meaning of life, I have missed out the most important part of who I am, my immaterial soul". "But what is that soul?" I ask. As soon as I have such a thought I am using



a language, and this is something I learned as a child. And the answer to this question that I or anyone else will give is based upon the cultural beliefs to which I, and they, have been exposed and the answers I and they have come to accept. Give me a different culture and I would have a different language and a different set of beliefs. In different cultural or experiential circumstances I would give different answers. But here we have now left the world of verifiable agreement and started to enter a different world of possible argument and contention.

But then is this dispute just merely a matter of culture and language? I have a nephew who, disabled from birth, has never uttered a word. He definitely does not think as I do, in a language, yet he has a recognisable “essence”, a presence, that religious and even non religious people would recognise by that quality we commonly call “soul”. Even further, having lived a life recently with a dog and two cats, I would go so far as to say these animals too possessed such a characteristic “essence” of “soul”. A religious person may claim that animals are devoid of such a thing, yet anyone who has witnessed the suffering of an animal would be hard pressed to explain how this is any different than the experience of suffering felt occasionally by my nephew. But is this all that we understand by “soul”, the ability of sentience, the ability to suffer?

I don't think so. I have seen houses too, that arguably have a “soul”, and have visited many places that have this certain indefinableness essence of “soul”. This “soul” was a deep resonance, a feeling that is palpable. I felt it recently in the garden of the house of Roveredo, in Southern Switzerland that my friend and her father visited, that I have described above.

What is this “soulfulness”? I would say that this too, forms a deep part of the mystery that resides at the heart of every individual person, in their response to the world of which they are a part. Soulfulness seems to be the potential quality of inducing a deep change of consciousness, creating a greater sense of calm, a timeless oneness, in which the difference between time and space, and of the individual separate from the world itself seem to collapse, and disappear, in which the self and all of reality are felt literally as one. It is also a mystery perhaps not unrelated to the earlier mysteries of where we come from and where we are going to. Are these three separate mysteries or are they elements of one over arching mystery? Unfortunately that too is a mystery! I cannot give a definitive answer, although once again, throughout human history, many answers have been by different cultures and religions (and are still being) given. In this respect we can say that we have a trinity of mysteries in our life, body, mind and soul. The indefinable essence of the John who is writing these words, the mystery of where I came from and where am I going, are three mysteries, and may in some deeper sense be related, or may be completely independent, one from the other. We are but as children playing in the sand on the beach of the infinite.

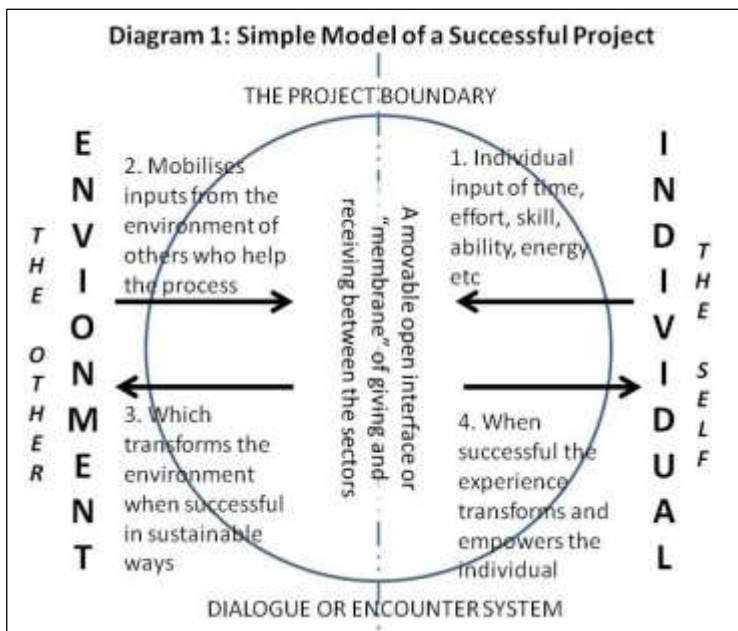
Putting all of this together, in respect to what we can say of the meaning of life, when we look at the Universe as a whole, there are in fact even more. There are at least five great mysteries in life. Not only do we have the first, the beginning or antecedent, ancestral (or A) mystery of where did the Universe and everything all start, or the last, ultimate (or U) mystery of where it is

all going to go. We have the mystery of the essence, it's individual (or I) "soul" of myself, in the moment of the here and now. We have the mystery of our evolution (or E), of how it all came to be; and the mystery of our collective future, the outer (or O) mystery of how will we get to where we are going and does it have meaning, or is it, as Shakespeare once asked, "Is it a tale told by an idiot, full of sound and fury, signifying nothing". Or does it really have deeper meaning?

The Greek Scientist Archimedes once said, "Give me a place in which to stand, and I can shift the world". The Universal Mandala shows that there is such an Archimedes Point. As I travel this bridge of my own construction, I am aware that the project of my bridge, the thread I am weaving in the tapestry is in reality part of a much larger bridge, and is weaving another thread in a much larger tapestry, and this is the tapestry of the Earth and the cosmos as a whole, and it is to this level that I now wish to turn, because this is the process that lies at the heart of Dragon Dreaming.

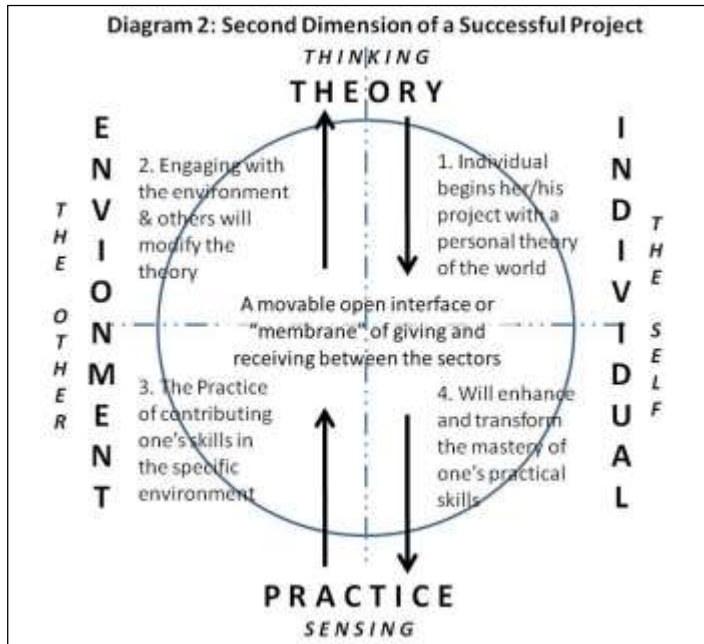
## Successful for Project in Dragon Dreaming

Two nights ago, awakening from a dream, I realised how greatly my work in Dragon Dreaming is coloured by the depth of sustainable spirituality of Aboriginal Australians, the original inhabitants of the land from which I come. And inside this experience of what they call "The Dreaming" and which we can call "the Everywhen", I found a way to pierce beyond the veil of these mysteries that surround us.



The mystery of my individual life, of my essence or "soul" I have found is best understood through the depth of my own personal lifelong project, the unfolding engagement in the world in which I live. This engagement allows me to better understand the "other", those myriad spirits with whom I share my life. It allows me to better understand beyond the experience of the other threads in the vast tapestry which surrounds me to see a little

corner of the pattern of the unfolding tapestry as a whole. The more I engage in the world, the more of the tapestry of reality is revealed to me. This engagement is the same engagement that



speeds and spreads the widening circles of my life and my culture and beyond into the ripples on the pond of the cosmos as a whole. It also helps me feel, and thus responds to the ripples of the pond which effect me as I voyage between the mysteries of where I come from and to where I am going. But how is this engagement to occur? It cannot be secured through my possessions, by what I "have". Possessions are appropriately named, as in the desire to maintain them and the comfort we believe they may give,

they ultimately come to possess us. The engagement of which I speak involves more than my thinking about the world, more than my action in the world, more than my "doing", and thus it eventually becomes an expression of my "being", or even my "becoming". Through this engagement both conceptual thinking and perceptual sensing I become even more true to myself. This deep ecological Self is not a fixed "thing", it is a growing and evolving "becoming", a process of continuing transformation, of humanization, not of a final state, but an inseparable part of the unfolding mystery of the cosmos that surrounds us on all sides. The engagement into which I am called is thus an engagement which calls forth, the highest morality that my life is capable of expressing. As I travel across and build the bridge between who I was to what I will become, so my awareness deepens and my understanding of both myself and the world in which I live is deepened and widened. Those aspects of life that were previously hidden by the veil of ignorance are slowly revealed. So it is by engagement in and with the world that the mysteries of the meaning of life are slowly uncovered. But this engagement I have found comes at a price.

The price is a process of constantly letting go of certainties and past concepts and theories. Even those securities which we were so sure, the love of a soul mate and partner, ultimately finishes in a tragedy – as one will die before the other. Living requires even that love to be transcended, so that it can be transformed and we can learn the depth of the lessons it has to teach. In this way by engaging in the world in the fullness of its depth and mystery, by stepping out of our comfort zones of what we have found to be safe and secret, then in some essential way we grow. Our "souls" develop new capacities, new understandings. The reason for this is that in engaging with the world we are not acting upon something which is merely "dead" or "inanimate" matter, as our culture and our religions may have taught us, but we are engaged in a dance with something that is fully and intimately alive. In fact the life of the biosphere, if not of the cosmos as a whole, vastly exceeds that sensory life of our own narrow selves. Just as the

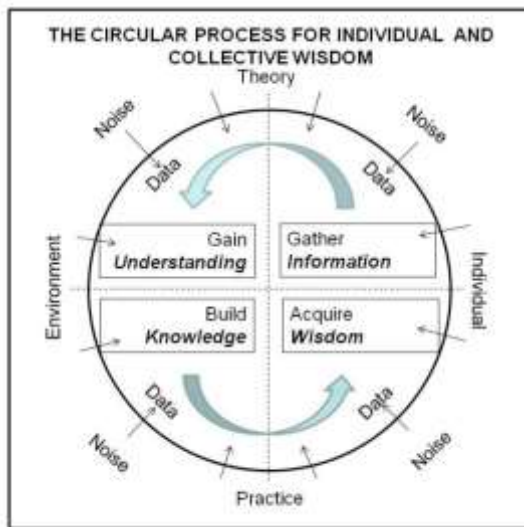
life of myself vastly exceeds that of the living cells which comprise my body, so that the life of the Earth, and beyond, and probably of the cosmos as a whole even more greatly exceeds my own, with its belief of separate existence. Thus I am engaged not in any attempt to control, but in a dialogue with the ultimate “Thou” of “Being” itself. In this dialogue I am engaged with that which gave me existence and into which with my death, my existence will ultimately once again be cast.

What is the nature of this engagement? Here in the 4<sup>th</sup> time of the everywhen, we have arrived at the sacred, the celebratory, the pathway, if there is one, to the divine. Ultimately this act of engagement is religious in the deepest sense of the word. Linguistically the word “Religion”, re-ligare, means the link that reconnects. My life, the thread of the bridge that I build is such a link. So is yours. Beyond all meanings of what we have come to attach to the world religion – beyond all cultural answers given by our historical circumstances, here in Dragon Dreaming lies a deeper connection, perhaps a “deeper re-ligion”, a reconnecting religion that came from before all other religions, and that will continue beyond the time when we humans have either passed away or perhaps evolved into the daughter species that will, in time, succeed us as we spread out beyond the Earth into the realm of the stars. The tapestry of our existence is thus in its ultimate essence just a part of the sacred tree of life itself, stretching from the creation of the first moment of time and space, and will continue to bear fruit until the last moment of the existence of our cosmos, when Feynman’s electron or the Higgs particle or the Singularity from which we have come, themselves unravel to bounce back in time and space creating all that was, is and will be.

Unfortunately for us, in the modern world, religion is a concept has often come to mean something else entirely. Rather than something that re-links us with the realities of our total existence, as was attempted in the millennia long great Axial Age of our culture by Jewish, Christian and Muslim prophets and saints, or by Hindu, Buddhist and Chinese sages, holy men and Greek philosophers, in the modern world one’s religion is often something that sets us apart from others, from nature and from other communities. With fundamentalists it has become a rigid, violent cultural mind-set, imposed upon us from birth or by conversion into the acceptance of an ancient spiritual dogma, that we are required to accept, rather than a mystery that links us through gratitude and thankfulness to the whole of existence. Such “religion” separates, it does not bring us together relinking us in any way. These religions no longer re-link, they have become “de-ligions”. This “deligion” occurs as a result of an unfortunate series of cultural events that happened more than fifty centuries ago, when as a result of a cultural and environmental crisis we began to build hierarchical structures giving some humans power over others. It led to the institution of violence in warfare, and the perpetuation of the suppression of women. It is a path that for ourselves, for the current global civilisation we belong to, and for the survival of complex life on the planet, as we shall see is threatening to become ultimately fatal. Any culture that treats this separated masculine human life as superior to the existence of the whole, or that treats this whole as merely a source of our raw materials or a receptacle of our waste, is a culture that has accepted to become cancerous, and has not

long to live. Spiritualities which support and justify such a disconnection should not be accepted

as religions. They have in fact become real “deligions”, de-linking us from that vast project described in the universal mandala above, which really connects us temporary nodes with the flow of ourselves, our communities, or of the living planet and cosmos of which we are, always have been, and always will be an integrated part.



## Conclusion

It is the result of the life project and processes of engaged bridge building that enables us first to recognise the important “data” in the noise of daily life. It takes this data, and through the addition of awareness and intentionality it becomes real information. Through applying this information to the real world in which we exist it becomes understanding, and through the testing of these understandings through our commitments it becomes true knowledge. But knowledge leads on through work which is not just the acquisition of new skills but is also a deeper collective wisdom. Out of this comes the meaning of each person’s life. This has been described as the exercise of “sound judgement” which “reflects great understanding of people and of situations. Considerate of multiple perspectives and forms of intelligence, this is the process that creates meaning. Wisdom in groups” as in individuals “is demonstrated by insight, good sense, clarity, objectivity, and discernment rooted in deep caring and compassion” (Briskin, 2009). Intelligence is not some “thing” that resides in our heads. It is instead in the process of flow that ties us as temporary nodes, into the world and ties the world back into us. As Gregory Bateson, recognised, this intelligence is the “pattern behind the pattern”, “the pattern that connects”.

The resulting nature of this engagement leading to deeper meaning perhaps can be best described poetically.

*We shall not cease from exploration  
and the end of our exploring  
will be to arrive where we started  
and know the place for the first time.  
Through the unknown, remembered gate  
when the last of earth left to discover  
is that which is the beginning;  
at the source of the longest river  
the voice of the hidden waterfall  
and the children in the apple-tree  
not known, because not looked for  
but heard, half-heard, in the stillness  
between two waves of the sea.  
quick now, here, now, always --  
a condition of complete simplicity  
(costing not less than everything)  
and all shall be well and  
all manner of things shall be well  
when the tongues of the flame are in-folded  
into the crowned knot of fire  
and the fire and the rose are one."*

From "Little Giddings", III FOUR QUARTETS by T.S. Eliot