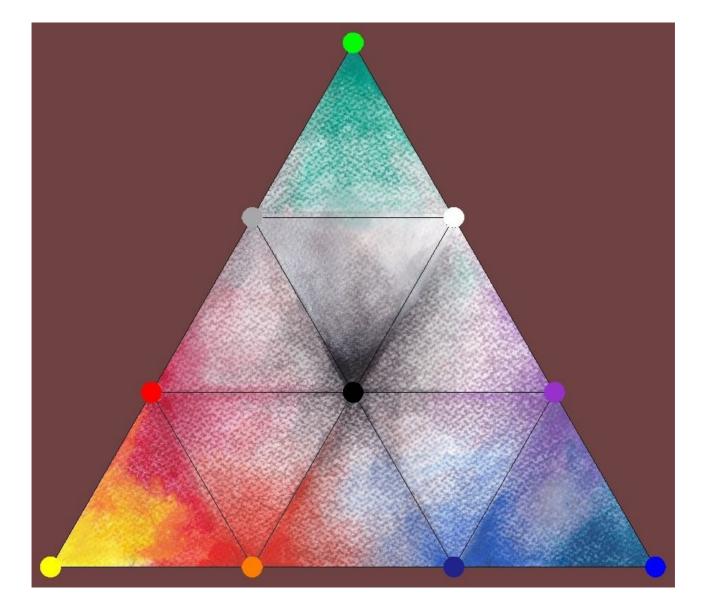
THE BOOK OF SEN BORN TWICE



THE WEB OF LIFE

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THE BOOK OF SEN – BORN TWICE

ISBN 978-0-9876221-2-9 (electronic version)

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That which is born twice realizes as the web of life and reveals what is hidden.

THE BOOK OF SEN BORN TWICE

INTRODUCTION

The 'BOOK OF SEN BORN TWICE' is a layman's agnostic ontology here presented in the completely revised 2019 edition of the first 'BOOK OF SEN' published in 2016. The word 'SEN' is made up from the capital letters of the words Something, Everything and Nothing. Ontology is defined as the theory of the nature of reality or the nature of being and agnosticism is the view that dogmatic claims, especially religious claims, such as whether god, the divine or the supernatural exist, are unknown and perhaps unknowable. Agnosticism simply suggests that a person shall not claim it knows or beliefs that which he has no objective grounds to know or believe or in other words that knowledge of the 'what is' or of 'what can be said to exist' is limited to experience. Agnosticism then is a system of following your reason to the best of your deductive capacity without laying claim that assumptions are true which cannot be proven by objective methods. Agnostic comes from the ancient Greek meaning 'without' and 'gnosis' meaning 'knowledge' and was used the first time by Thomas Henry Huxley in a speech in 1869 to describe his philosophy which rejects all claims of spiritual knowledge.

The book came together over a number of years as a somewhat intuitive and fragmented investigation of topics related to physics and metaphysics. Done so without deep grounding in these sciences no claim of scientific correctness is made. This appraisal and explanations of the reality of the '**what is**' or the world of '**somethings**' is an attempt to make sense of life amidst a world seemingly heading into disarray and lacking direction.

We have arguably arrived at a state of confusion, a sort of crossroads, that to a some extent stems from the many outdated historical values such as delusional religious dogmas, monetized economic system and anachronistic cultural values. During a relatively short period of industrialization our species has manifested an almost complete collective disregard for the well being of the web of life and as a result arrived at the threshold of unleashing a major extinction event. Our situation is partly to blame on both, religious and non-religious cultural attitudes that view humans as the pinnacle of the evolutionary ladder in turn stemming from the delusional view that we are created by god in his image to rule the earth and also by the egocentric view that we rule the earth because we simply have the power to do so. We assume humans as far more valuable than any other form of life yet we are not that different and share identical traits with them. Our attitudes and understanding of supreme superiority within the web of life somehow sanctioned our actions without ever needing to question the basis of its validity. As a result we have exploited and plundered the planets resources, cleared large tracts of land, destroyed the habitat of many life forms, put trillions of sentient animal beings into cages torturing them for life to ultimately kill and eat them, all in the name of progress and in the blind belief of our power and God given right to do so. The warning voices of a few with the ability to foresee the 'what will be' from the flow of the 'what is' have been largely ignored or

suppressed by the ruling elite which has benefited most. At present fifty percent of the worlds forests and eighty-five percent of wild animals have been destroyed by humans, a process that is ongoing with no end in sight heading to its final conclusion, total oblivion of the natural world. It is not only the wild that is being damaged but also the humans themselves. Increasingly every year millions of people are now dying of the effects of polluted air in the large cities of the world, the toxic air generated by the burning of fossil fuels particularly that in coal fired power stations and cars. As a direct consequence life expectancy in these concentrated areas of fossil fuel burning is significant lower compared to areas with a lesser degree of pollution. Human induced climate change too is forcing us to divert more and more resources to the unproductive repair bills arising from the need to mitigate against escalating violence of the weather systems that is caused by a continuous rise in temperature. This violence takes the form of droughts, devastating wild fires, flooding and more intense cyclonic storms all of which results in economic suffering. Natures treasures such as the Great Barrier Reef, the biggest living organism in the world, the wetlands of Kakadu National Park in Australia and even entire countries will be destroyed within just one or two decades. The majority of glaciers as well as the arctic and antarctic ice sheet are in meltdown and species extinction now exceeds hundred times the pace of natural background rate of extinction. Almost a billion of people will be displaced within a few decades by the predicted raise of sea levels in low lying coastal areas, yet the majority of our political masters are still in what appears to be a denial of the situation in blind pursue of the dogma of unlimited economic growth and development. This dogma is upheld by the giant corporations that own and hold the licenses to extract and burn heavily subsidized fossil fuels, the subsidy in form of costs arising from fossil fuel induced climate change and pollution funded through general tax revenue. Ironically taking such subsidies into account, energy from renewable and non polluting sources are more economic than energy from fossil sources. What are we waiting for? Why are we still stuck in the age of coal and oil? Climate change in conjunction with the deterioration of the worlds ecosystems is not a hoax as some people still believe and it is not easily manageable as many politicians and technocrats want to make us belief. The impeding disaster is predicted to accelerate through natural climate feed back loops that are being unleashed by human induced climate change. A world in turmoil will be the new reality because it arises from the undeniable truth, the 'what is' and no amount of wishful thinking or prayers will change that. Climate change and pollution are a reality that will hit us like a runaway train at hundred miles an hour. What we are hearing now is just the rumbling of the train in the distance.

I have been following the climate change debate for decades and have come to the conclusion that the discussion is not turning into effective action. No amount of argument seems move the minds of a people with vested interests, largely ignorant of the science and stuck in 'gravity of mind' formed by inadequate or distorted understanding. No amount of protest, violent and non-violent, seems to make a difference because rather it activates the protective mechanisms of the established order hanging on to their collective material short term gains at any cost. Nevertheless, eventually the 'what is' will force change whether the climate change deniers amongst the ruling order like it or

not. Change will come from painful recognition of the 'what is to be' out of the 'what is now' and this recognition will be forced through suffering. Pain and hardship will teach us to recognize truth, the 'what is', that is a climate spiraling out of control. Action arises out of conviction of belief. If we are stuck in the belief that the problem does not exist, is not as bad as we are told or can be managed through future technology then nothing much will happen. Only the conviction that the problem is painfully real and threatening our very existence only then will we have the impetus to act. What is the meaning of life in relation to such an existential threat? To answer this question requires us to have a clearer understanding of what is existence and what is life and what are we meant to do with it, the very questions the book tries to answer. It does it by consideration of what we do know as distinguished from what we cannot know.

The search for understanding of the 'what is' led me across the ancient Greek symbol of the **'Tetractys'**. According to its inventor, the famous Greek philosopher and mathematician Pythagoras, the Tetractys embodies the numerical intelligence of the universe, a triangular arrangement of ten dots. I took the Phytagorean geometry of the Tetractys into a different direction by attaching numbers and colors to the ten nodes then encode them together with the ten chapters of the book of SEN in order to establish a system of ontology (refer to illustration 1 on page 15). The conclusions arising from a consideration of this ontology progress towards the need for a path of a more ethical base of caring for the well being of the web of life, a system of thought that is to be based on objective appreciation of the 'true nature of reality', the 'what is'.

Each chapter of the book follows a like sequence, starting with a clear definition of the term, an explanation of how the term integrates into the geometry of the Tetractys, general considerations and completes with a practical application related to the topic.

1. THE EVERYTHING

The book of SEN as the philosophical study of the nature of existence discusses topics such as:

-what is -what is a something -what is a nothing -what is existence

This first chapter deals with the concept of existence as the 'everything' or the 'what is' as the knowable world.

Definition of the everything:

The everything is the totality of somethings that can be said to exist placed against the nothing or non-existance.

The 'everything' as the sum of all 'somethings' in existence is embedded within the infinite and eternal background of the 'nothing'. The totality of all somethings encompasses the known and knowable world for a human within the sensing scope of the human mind. In contrast the conceptually infinite and eternal 'nothing' is unknowable. Since the nothing is unknowable, the 'everything' in totality is also unknowable. When we consider the known parts of the 'everything' we can only talk about the knowable of the 'everything', that is the 'somethings'

Integration of the everything into the Tetractys

What is the Tetractys? The Tetractys is a specific triangular arrangement of ten dots that according to its inventor Phytagoras (560 – 490 BC) embodies the numerical intelligence of the universe. The base line of an equilateral triangle contains four dots (earth, fire, air and water), the second line three dots (trinity), the third line two dots (duality) and the fourth line as the apex has one dot (unity). Pythagoras also used the Tetractys to construct a system of musical harmony teaching that postulates every living body down to the smallest unit of matter is vibrating and so emitting a sound. The study of sound can be reduced and understood by number and in this way number and their relationships and meanings are key to the understanding of the universe. Although not prescribing to this teaching I found the geometry of the Tetractys useful in an entirely different way (illustration 1 at page 16), that is as a mental construct to accommodate meaningful linkages of ideas exposed in the book of SEN. Here the Tetractys rotates around its central node the number zero and color black representing the 'nothing' just as in physics the universe rotates about its

central black hole. Nodes and shapes within the Tetractys connect in a meaningful way with their adjoining elements. The Tetractys can also be visualized in its three dimensional version (illustration 2 at page 17) as a **octahedron** (natural diamond gemstone shape) that is made up by two identical square pyramids all with equilateral triangles (each triangle representing the Tetractys) joined at a square base.

The entirety of the Tetractys represents the 'everything'. The nodes on its perimeter contain all numbers of the Tetractys with the exception of number zero. The sum of these perimeter numbers at each side add up to 20. The number 20 is significant as representation of the number of amino acids in th DNA of all living somethings. Out of 700 known amino acids only twenty are used in the lifeforms DNA code. Each chapter of the book of SEN relates to a specific triangle of the Tetractys, the position, numbers and colors which give interpretative and symbolic meaning.

The color wheel of the book of SEN Tetractys incorporates Sir Isaac Newton's seven colors of the visible spectrum of light in addition to the three colors of the nothing; white, black and grey. There is a widely known theory in yoga and new age thinking that the seven chakras or 'wheels of life' somehow relate to the seven colors of the visible light spectrum. What is less commonly known is that traditional yoga also talks about three additional and secret hidden chakras which brings the number of known major chakras to ten, the sacred number of Phytagoras.

In color theory black is the quality of a material that absorbs all of the visible light spectrum and therefore out of the ten colors in the book of SEN black is not really considered a color in that sense, rather as the manifestation of a materials reflection as the absence of all color and is fittingly assigned to the notion of death and nothingness as the very center point within the Tetractys. Modern science now talks about dark energy and black holes as the force that continues to create and expand the universe but admits that it has no idea of what it is. Contrasting with black, white materials have the ability to reflect all of the visible light spectrum.

Discussion of the everything:

As will be explained in chapter two. all 'somethings' are defined to move in space and time while being subject to change. In contrast the 'nothing' is immobile and static if it can be thought of as existing at all. The 'everything' also changes as it encompasses the qualities of all individual somethings which themselves are constantly changing. The known universe in itself is expanding and moving within space constituting a change of position thus the entirety of the knowable part of the 'everything' is in a constant flux of change.

All somethings die and/or dissolve into other somethings. According to a theory in physics the sum of matter and energy of all somethings in a contained system remains equal as the entities that form somethings merely transmute from one state to the other. There is only one nothing. Although there

are infinite manifestations of somethings, there is only one everything. Within the structure of the Tetractys the 'nothing' and 'something' together form the shape of an hourglass. As a metaphor we could consider that the life of 'somethings' drains into the 'nothing' at point zero when they die and when the hourglass is turned upside down life drains from the 'nothing' into the 'something' at the same point. The death of the 'nothing' thus creates a new 'something', a new life and vice versa.

Consciousness arises from the nervous systems of somethings. The 'nothing' by definition has no consciousness. The 'everything' has the consciousness of the totality of all 'somethings'. 'Somethings' can take the form of conscious animated aggregations of atoms, but only very few living organisms are said to have self-consciousness. The 'everything' can be considered as the sum of knowing of the web of life because it contains the totality of all conscious and self-conscious somethings in known existence. Only the 'nothing' and 'everything' could be considered as immortal. A 'something' is subject to death through constant change or transformation. As it changes it dies and morphs into another something(s). A something can know itself through its nervous system. The 'everything' cannot know itself fully because it cannot know the 'nothing', the latter which cannot know itself since it has no nervous system capable of sensory perception. The more our nervous systems collides with the manifestations of other somethings the more we know, but our nervous system will never collide with the 'nothing'. For a something there is the certainty of change and death. While many people and the animal world fear death, death as the stoppage of a something's perception of the 'what is', could also be considered as the greatest gift of life. When we die all suffering stops because we can only suffer through perception as a 'something' but when we reach the eternal stillness of nothingness, our nervous strata and thus consciousness of suffering has permanently vanished.

A human as a 'something' is a killing machine throughout his life time. We kill plants, animals and other living things to nourish our bodies in order to keep alive. Assimilation of other somethings means death to the other something thus assimilation is killing or causing death. This holds true also for non living somethings. If a water molecule splits into oxygen and hydrogen by a chemical process, this particular water molecule as a 'something' has vanished and entered the nothing. At the same time two new somethings, that is atoms or molecules of oxygen and hydrogen have been born out of nothingness. We consider that the label or identification that consciousness attaches to entities is also a something as independent from the entity. The oxygen molecule exists as an entity within the 'what is' but it may or may not also exist as a different 'something' within the memory of a conscious being that is capable of sensory perception.

Anything that occupies a defined space is a something and exists. To exist means being able to change and to move in time and space. As we move in time and space as conscious somethings our nervous system collides with other somethings even if it is just the perception of the collision of a something with a 'light photon something' emanated from one of the stars of the universe. We can only register and become what we experience and experience is the collision of a something with

another something, resulting in an imprint of the experience within nervous strata. The nature of our experience depends on the other something we collide with. We always and constantly experience unless we are not conscious. Most of our experience is subconscious, it is experience but it doesn't show up on the screen of self-consciousness. Only a something can be mentally pictured because it occupies space and time and is energy. Close your eyes and mentally picture the infinite. Let me know if you succeed. Close your eyes and mentally picture the nothing. Let me know if you succeed. We cannot know what we don't experience.

The 'what is' of a 'something' can be verified by sensory perception and direct experience. For example if there is a tree in front of you and you can see, touch and smell it than that tree is factual, it exists and forms a part of the 'what is' somewhere placed in the everything. If you imagine a tree in your mind then this is also a 'something' (an entity in space and time) because it exists in the form of mental impressions (imprint) in the brain or nervous system. It can therefore be said that the imagined tree is also part of the 'what is' and thus part of the everything. The imagined tree will disappear or change and also enter the nothing when the brain dies or if the impression is being wiped from memory.

The understanding that we as a 'something' are a separate entity independent from other 'somethings' is conceptual only. In reality we are indeed the everything at every time of our existence. We have come from the everything (at birth a tiny fertilized egg) and we return to the everything as a handful of dust. Our trillions of cells in the human body are individual entities or somethings themselves and so are the trillions of organisms that occupy our body (bacteria for example) and these are also a mostly cooperative part of you just as the 'you' is a cooperative part of the human race and as part of the human race, you are also part of the animal world and ultimately just a tiny part of the everything. The whole of the everything can be considered as a giant 'something' on a scale which is infinite in both directions from smaller than the tiny atom to the universe and beyond. Each of your individual cells has its own consciousness just as you have. The tree in front of you is just a tiny cell of the body of the living biosphere and so are you. **While we think we are independent we are really just the labeled self imagined tiny part of something else.**

The **Gaia** theory proposes that organisms interact with their organic surroundings **as earth** to form a **self regulating complex system** that helps to maintain and perpetuate the conditions for life on the planet. The theory suggest that organisms co-evolve with their environment. The originality of the Gaia hypothesis relies on the assessment that such a balance is actively pursued with the goal of keeping the optimal conditions for life through cybernetic feedback systems unconsciously operated by biota. The mythical Gaia was the primal Greek goddess personifying the earth the Greek version of 'mother nature' (from ge – earth and aia =grandmother). To the contrary **Gaia is not considered as an organism** but an **emergent property of interaction among organisms**. It has been suggested that global biological feedback mechanisms could evolve by natural selection, stating that organisms that improve their environment for their survival do better than those that damage their environment. Science remains skeptical about the concept although it makes common sense. Humans have now become a more prominent part of Gaia and in theory are capable of improving the environment for all living organisms? However, our history shows that we act more like a malignant cancer that has the potential to succeed to wipe all life from planet earth. Whenever humans appeared on the scene there was and is exploitation, habitat destruction through so called development, displacement of wildlife and a sharp acceleration of the background extinction rate. More and more we are perhaps unintentionally but nevertheless actively steering the web of life towards total annihilation by setting off natural processes and self perpetuating climate feed back loops that threaten to run out of control. If we fail to set the brakes in time, we will succeed to eliminate ourselves together with all other life and where does that leave the Gaia theory?

And what about god?

Despite our science based society, many people persist to immerse themselves with the idea of a benevolent '**creator being**' called 'God', to the point where the science of evolution and in fact most sciences are being denied credibility. When being asked for concrete scientific evidence the 'faith people' are at a complete loss simply because there is no such evidence. The book of SEN discusses the relevance of the concept of God in relation to the something, the nothing and the everything. The consideration of this issue throughout the text has ultimately led to the conclusion that God is logically unknowable that is **both the existence and non existence of god** cannot be asserted trough reason. Religion based on an unknowable God is irrational and delusional. Since delusional worship of the unknowable is considered as potentially harmful where it negatively affects the well being of other people and indeed the web of life there is a need to refute the concept in principle through providing an alternative rational viewpoint that is better equipped to nurture the well being of all of us.

God cannot be the 'everything' because it can neither be the 'nothing' nor the 'something(s)' and since both constitute the everything, God cannot logically be the 'everything'. God exists only in the minds of people as an imprint on nervous strata, it dies when the nervous strata in these people ceases to exist. Religions have had their purpose in as they established social order and given hope to individuals less confident in thinking for themselves. However there is a need for an **ethical direction** that allows us to change our current pathway in the face of existential threat of extinction through climate change and pollution.

Practical application of the everything (Mantra of the everything)

Many if not all religious cultures incorporate the practice of some form of daily prayer or mantra into the life of their followers thus constantly re-affirming and reinforcing their dogmatic credos within the faithful until their subjects have absorbed the underlying belief system to the innermost core of their minds. It is a perversive form of mind control and I, like most other people in my culture had been subjected to it. It took an equal effort to neutralize this mostly irrational substrate of thought through daily repetition and meditation on my own 'mantra of truth' or what could also be called the 'mantra of the everything'. The practice of this mantra has slowly evolved and its effect is akin to the method of back burning to fight a wildfire:

Nothing matters because everything that is just is, everything that was has been and everything that will be just will be. Who we are is who we were, through the eternal dance of cause and effect, Life devours the life of world to the end and when nothing is left there is silence and eternal peace, earth a dead rock in an universe that never cared, bar a few resonating hearts.

These few lines contain the essence of truth, in this case my version of truth. Truth is the 'what is' and it may not be what you think it is. The moment you think you merely interpret the truth of the 'what is' and so likely distort it or omit part. When you embrace and accept the 'what is' directly without thought and making assumptions, only then do you really get close to truth albeit only within the limitations of sensory perception. There is no free will because everything that happens is determined by the natural law of cause and effect by a myriad of processes, a play that mostly unfolds outside of consciousness. Here is the analogy of an iceberg floating in water. Only the tip is exposed while most of its bulk is immersed in water. Our consciousness that becomes aware of thoughts is like the tiny tip of the iceberg that deep down is supported by unconscious processes over which our ego has no control. Nothing matters means that the 'what is' just is, regardless of what you may think of it. Thinking is merely a chance reflection of a past snapshot of the 'what is' and thus has no influence over it. For example if you sit in front of a table with a red apple no amount of thinking will make it turn into a green apple or make it disappear. Even if you are able of self hypnosis and deny its existence, the red apple would still exist. Thinking is a ripple of reflection on the surface of an ocean of subconscious processes all of which in turn are individually created and shaped according to the law of cause and effect. Your reflective perception of the 'what is' does not directly matter because ultimately it does not change the 'what is'. Who we are is who we were, means that what we are is a specific DNA sequence, a program that has been evolved from the very first cell from some four billion years old ago and thereafter forever duplicated gradually modifying and changing to its current version. The program is built on a history of genetic inheritance from the humble green algae through to our ape ancestry to the human. Who we are is who we were also means that our mind is the accumulation in memory of our life time experience, the totality what determines our thoughts at any point of time in response to sensory input at any point of time. Life devours the life of world to the end means that as a programmed organism within the everything we

are designed to constantly absorb energy in form of food, water, air and light throughout our life time from the everything until there is nothing left to absorb and/or the program can no longer duplicate or continue as it reaches its used by date. The 'resonating heart' is a term I use to describe what it is that as an individual 'something' connects us to to the everything and thought to include our electromagnetic fields especially that generated by our cardiac heart, our sensory organs and our mind.

Every single person finds its own mantra of truth. It can be what others tell you through culture, that is through an established system of interpretation of the world perhaps modified through your own interpretation of the world. In some very rare exceptional individuals the mantra can be the resonance with the 'what 'is'. You may think the choice of how your mantra shapes up is ultimately up to you but that is not the case. The choice is up to the totality of your memory of a life time of individualized sensory experience or what I call 'gravity of mind'. For example if you have been brainwashed as a child to adopt religious views you no longer have a choice because your mind will tend to accept only what confirms this particular view of the world deeply anchored within you. Thats holds especially true if you are physically embedded in a culture, that is if you are living with friends and family that share a similar views. Or on the contrary you may be able to cut this cultural rubber band and eventually find the freedom to think for yourself. Does it matter? The answer is, no. The circumstances of your personal gravity of mind pushes you along a certain path. Nothing matters because everything that is just is as a mechanical result of cause and effect. There is peace of mind when you live in truth, that is you live in the 'what is'. Living in truth allows you to accept the 'what is'.

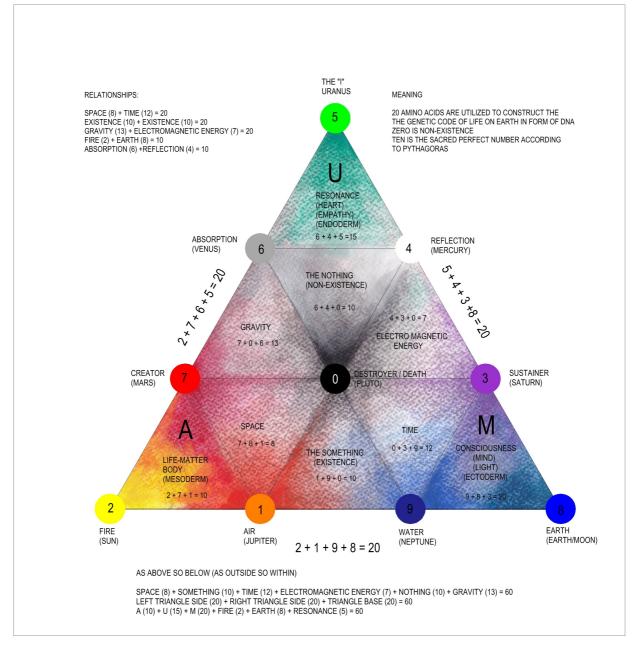


Illustration 1: THE EVERYTHING

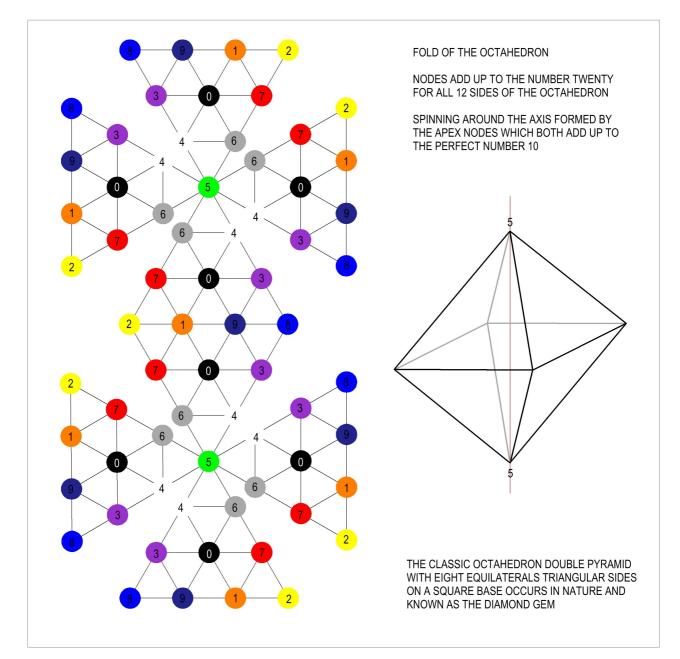


Illustration 2: TETRACTYS OCTAHEDRON

2. THE SOMETHING

Definition of the SOMETHING:

A 'something' is an entity defined by space and time and in its form of matter and energy as temporal existence is subject to change.

Integration of the something into the Tetractys

The location of the 'something' within the Tetractys is the central triangle at the bottom end bounded by the numbers 1 (orange), 9 (indigo) and zero (black) the sum of which adds up to 10. The something is adjoined by 'space' and 'time' to either side which define it as a spatial and temporal entity. Its existence is subject to change, the change which is symbolized by the number zero (black) at the triangles apex. The number zero is insubstantial and the color black absorbs all light so nothing can be perceived at that point. It symbolizes that all somethings as a living entity are constantly transformed (in a sense a something dies and is re-born in each moment of the present) and eventually as an labeled entity is permanently pulled into the nothing or non-existence. The number zero is also connected to the triangles of gravity and electromagnetic energy (including the universal forces weak force and strong force) both of which are qualities of a something that serve to manifest transition .

The 'something' as a triangle within the Tetractys can be seen as another Tetractys in itself containing another proportionally smaller 'something' and so forth on smaller and smaller resolution symbolizing infinity within the universe and that all somethings share the same structure in common, just like your trillions of cells of your body, each being a 'something' are part of 'you' as the bigger something. Every Tetractys contains the nothing, thus a 'something' as a Tetractys in itself also contains the 'nothing' and all the other elements within. The Tetractys in its geometric structure in three dimensional space as shown in illustration 2 on page 17 resembles the natural octahedral crystal habit of diamonds as they occur in nature. A diamond is a solid form of the element carbon with its atoms arranged called the diamond cubic that has the highest hardness and thermal conductivity of any natural material. It is the least compressible material and is also an excellent electrical insulator. A diamonds age can range from 1 to 3.5 billion years roughly back to the time when life on earth started. The oldest dated printed book in the world is called the 'Diamond sutra', a chinese text. In this book the title diamond doesn't refer to the diamond itself, but to a diamond blade that will cut through worldly illusion to illuminate what is real and everlasting. THE BOOK OF SEN BORN TWICE also likens the Tetractys as a blade that cuts trough delusional interpretations of the nature of reality to reveal the truth of the 'what is', that is the world of 'somethings'.

Discussion of the something:

The world of somethings is the world we know or is knowable to us, also called the 'what is'. You as a person are a 'something' as is a rock, a drop of water, an atom, a beam of light or a even a thought in your mind.

All 'somethings' in existence together form the 'knowable world' or the 'what is'. All somethings that have been perceived through sensory perception of a something form the 'known world' for this being as a 'something'. All somethings that have not been perceived by beings, form the unknown knowable world for this being. The nothing is the 'known unknown' world. The nothing as the 'unknown unknown' is beyond human comprehension and while we may speculate on the nature of the 'known unknown', it is only in a conceptual way such as through mathematical concepts or symbolic language not directly verifiable through sensory perception. The nothing cannot be experienced directly and all said about it is mere speculation. Since the nothing cannot be perceived it does not form part of the 'what is'.

Sensory perception relies on the collision between somethings. For example becoming consciously aware of a 'something' in the form of a tree in front of you, is the collision of light (a something in itself) with the tree and the collision of reflected light (another something) from the tree onto your eyes retina (another something) where the light is transformed into electrochemical energy (another something) and then further into nervous energy (another something) perhaps also into a form of thought (yet another something) conceivable by the mind (itself a something akin to a mirror). Here the 'light something' (matter/energy) was subject to a number of transformations all defined by space and time and has ultimately changed its existence into a thought something which also is defined by space (has location within one or many networked neurons in the brain) and time (has a creation point in time and exists in memory) and is subject to change (fading out in memory or cease when the brain or neurons die). From this one can see that even a single simple event of looking at an object in the world of somethings is an incredibly complex process of transformations. Now, just for a moment imagine the infinite number of processes working simultaneously in the universe. Every single particle of the universe is in constant motion and thus changing position in space. The earth rotates around itself and around the sun which itself rotates around the universe which in turn constantly expand into all directions. The principles behind the process of each and every event, that of time, space, energy, gravity, change are the same. The state of every 'something' and every event is determined by the principles, the fundamental laws of the universe. This is the world we know or the 'what is'. Although we are capable to perceive the world of somethings when our sensory organs collide with other somethings at any point in time, it is only so within the framework of limitations of our sensory organs, our location in space as well as the limited extent and functioning of consciousness. For example we only see what our eyesight allows us to see at any moment in time and even then only a tiny amount of this incoming light information is interpreted and categorized by the mind. We are only capable of perceiving the **past** of a something because all this information processing requires time and when the information or collision turns to thought or memory the 'something' of the tree in our example. has already changed in the meantime. More of that very important line of thought in chapter 'time'.

The 'something' and the 'what is':

The 'what is' or what can be said to exist is the collection of 'somethings' outside the nervous strata of conscious beings but includes also the distinctly different totality of all the 'somethings' within. It is important to make the distinction of the 'what is within' and 'what is outside'. For example the tree in your garden is a material something belonging to the 'what is outside' and the thought of the same tree or mental image of it is also a material something but belonging to the 'what is within'. The tree as a thought form about a tree or a memory of a tree is embedded as electrochemical charges in nerve cells and as such has a material basis just as the tree itself has. Your virtual tree exists but only within the nervous strata of you as a something. The 'what is outside' exists as a completely defined totality of the external world as distinct from the internal virtual world of thought and memory of the 'what is within'. We have to consider this internal world as merely an assumption and reflective illusion of selective aspects of the external 'what is outside'. While this virtual world exists it can never truthfully represent the 'what is' and should therefore be considered as 'half truth' or 'un-truth'. We live close to the truth only when we are fully aware and present within the 'what is outside', but without thought, judgment and making assumptions yet even then it is only to the extent of our individual sensory capacity at any point in time. While our internal virtual world may be a close enough interpretation of the 'what is outside' it can never be comprehensive. A portrait painting of a person or a photo of it is not the person itself although it may very well give a realistic depiction of the person.

Is God a something?

One can furnish proof for what exists in the world of somethings through the 'what is' of collision between somethings. It is not possible to proof the non existence for a 'something' that doesn't exist. Space is infinite and time is eternal and there may be worlds upon worlds of a different kind completely unknown to us and being in existence outside the reach of our extent of perception. Naturally we cannot say that such worlds exist. A thought is a something in the human brain and exists because we can become conscious of the workings of electrical charges in neurons the totality of which is known as workings of the mind. A belief that a 'God' exists is just a belief, a thought, but is not God itself. The generally accepted classical definition of God is as an **infinite and eternal entity** and thus cannot be a 'something' because within the context of the book of SEN a 'something' is defined as being **finite and subject to change**. Therefore God cannot be a 'something' by definition. If God were a 'something' it would have to be finite and limited like all other 'somethings'. I conclude that God cannot be part of the 'what is outside'. God as a thought can exist only in the virtual world of the 'what is within', which in turn as nervous substrate is defined as a spatial and temporal entity subject to change and death and therefore God as such a mental impression is also considered an 'un-truth' because it doesn't fit the definition of God as an infinite and eternal entity in this case.

Practical application of the something (Tuning sensory perception)

Sensory perception of somethings is fundamental to survival of conscious beings such as humans. For example driving a car requires precise judgment and recognition of other cars, the road and any obstacles on and off the road. Our senses function habitually and automatically in the recognition of the 'what is' on the road but we become more consciously aware of 'somethings' when focusing our attention on them. The quality of this focusing of attention can be enhanced and improved if done deliberately and with method. I call my method the 'Tuning of sensory perception'. Like the tuning of a radio results in clearer reception so the tuning of sensory perception results in as more accurate understanding of reality or of the 'what is'. Our main sensory organ is that of sight. Many people are in the habit of merely looking at the world rather than seeing the world. Seeing the world entails the conscious recognition of nuances of texture, color and form among other things. The method to tuning the 'eye' for seeing has been practiced by countless artists for thousands of years. Pick any something (object), a pencil and a piece of paper. Look carefully at the object's form and copy an outline of it onto the paper. Continue this process for every little recognizable detail. You will see many nuances of color and texture and properties that are part of the object that you have not noticed before while merely looking. What is the color of cast shade that the object generates and so on? When practicing this method often you will notice how improved perception creeps into your daily life. For example I have been painting for a few years and now after those years of practice when I visit a swimming pool, I'm conscious of the interplay of at least four different blues present in the water and in my mind figure out what pigments I would have to use to mix these colors up. There is cerulean blue, ultramarine blue, cobalt blue and prussian blue. I also notice how light reflects in the surface of the water and how movement of the water changes the colors and tone. Merely looking at the pool one only sees water, seeing the pool means getting closer to an understanding of water.

You can apply the method of tuning perception for any of your sensory organs. Of course you may already practice this method in your daily routine. For example if you are a professional cook you are likely to have a highly developed sense of smell and taste. A musician is likely to have developed an enhanced sense of hearing. A carpenter would have a high level of tactile sense. Look at your life and decide what would be most beneficial area for you. If it is tactile sense take the object, blind fold your eyes and use your hands to feel the form and texture. The method of tuning works best if we exclude input from the other senses and solely focus on one sense allowing us to become more conscious of the workings of this sense.

3. THE NOTHING

The nothing is a difficult concept perhaps because it cannot be fully understood. We either experience something or we experience nothing but experiencing nothing is not really an experience rather it is the absence of experience.

Definition of the nothing:

The nothing is the absence of somethings as non-existence.

Integration of the nothing into the Tetractys

The nothing in the Tetractys is the only internal triangle with all three of its sides located entirely within the Tetractys and is defined by the nodes zero (black), 6 (grey) and 4 (white) the sum of which adds up to ten. White reflects all of visible light, gray evenly reflects a degree of visible light and black absorbs all light. The 'nothing' or 'non-existence' connects to 'space' and 'time' through the inverted tip of its triangle at node zero symbolic of the quality of infinity and eternity, both of which cannot be comprehended by the human mind as they have no beginning and no end. One could say space and time disappear as non-existence in the nothing at point of contact at node zero (black) of the nothing, just like a cosmic black hole sucks up all of energy through infinite compression of matter and therefore the 'nothing' is considered beyond time and space. In essence the 'nothing' as non-existence is incomprehensible as it doesn't exist and that in itself is a contradiction of terms. We can only describe the nothing as an abstract term and visualize it as the absence of everything we know from sensory perception.

Ancient India was the first to invent the concept of zero as a number, the concept further developed by the Arabs from which it was gradually introduced into medieval Europe where it supported radical changes in science and philosophy. The Sanskrit name for zero, 'sunya', meaning 'empty', became 'chifra' in Latin, the latter carrying the meaning of 'nothing', a distinctly different concept from 'empty'. Zero allows numbers to represent ideas which have no form in conflict with the more ancient and revered spiritual concept of unity that started with number one and was seen as the form of origin of creation or a symbol of God that then split into duality at the point of creation. When the zero was introduced to Europe many monastic catholic Orders resisted the adoption of the system of decimal notation with zero, claiming particularly that zero was a device of the Devil. In the book of SEN version of the Tetractys zero becomes a mental construct that negates existence and relegates it to the realm of the unknowable. There is no zero in the natural known world of somethings. Consider that a somethings finality of departure by death from the 'what is' can be explained satisfactorily through adoption of the zero as a symbol of negation as a rotation point of the constant fluctuation and alternation between the 'something' and 'nothing' in a field continuum of the 'what is'.

Just as with the something in the previous chapter, the nothing in the Tetractys can be seen as a matrix of infinite smaller and smaller Tetractys's thus conceptually matching the universe of the world of somethings. Within the Tetractys the triangle of the 'nothing' does not make contact with the triangle of 'consciousness' nor with the triangle of 'matter' in other words relegates these two items to outside of the realm of the nothing as two manifestations of a something within the field continuum of the 'what is'.

Discussion of the nothing:

Consider the 'nothing' as non-existence embedded in a background of infinite space and eternal time. Since nothing is perceivable within the 'nothing' the 'nothing' in itself cannot logically exist. Existence implies being of some sort. The nothing as not being is outside the 'what is' and is therefore considered a non item regarding the scope of human comprehension. Since we cannot comprehend the 'nothing' we are forced to resort to analogies and conceptual explanations.

Conceptually the 'nothing' is the not doing of doing. For example, lifting a glass of water is an act of doing. Not lifting the glass of water is the 'not doing' of the same action. Prior to the action of the doing, both, the action of doing and not doing exist as potential only. If the lifting of the glass of water is never happening, the not doing, the nothing of this action has come into reality, into existence. In this sense the nothing exists conceptually, it is real but we will never experience it as the 'what is'. If you follow this line of thought then you can see that 'existence' is nothingness before coming into existence. Thus nothingness is essentially the state of a potential entity of a something prior to its creation. In other words we exist in the nothing as a potential before birth and after death. Human beings as somethings constantly create acts such as lifting a glass of water in the world of somethings out of this background nothingness. The nothing is then both the potential for existence and non-existence of what has or not has been, as well as future potential for existence of what will be or what never will be. We all arise from the 'nothing' as a potential for a new something. Let us illustrate this concept with the birth of a person called Lizzie. Lizzie was born when the sperm of her father fertilized the egg of her mother. Both the sperm and the egg died in this very moment that is they became a nothing in the 'what is' and were replaced with a new something, a human embryo in the 'what is'. Before birth the new embryo only existed as a potential in the nothing which then came into existence at birth. When Lizzie ceases to live her existence as a something returns to the nothing. During her life time the potential for Lizzie to die existed in the nothing only but when she eventually ceased this potential then came into existence.

The human mind which is itself a something can only experience other somethings when its sensory perception collides with them. The nothing exists by definition only because there is no other than the infinite number of 'nothings' for an equal infinite number of potential somethings to come into

existence. A something manifests as existence of a labeled entity within the field continuum of the 'what is'. It was a 'nothing' before its birth or creation and it will be a 'nothing' after its death and dissolution. The nothing of a something before and after its lifespan is exactly the same, that is its 'non existence'.

Can God be the nothing?

The nothing has been defined as non-existence, that is nothing exists in it not even God. For God to be real it would have to exist and that is not possible in the nothing by definition. In the previous chapter we established that God cannot be a 'something' it follows that God cannot even exist as a conceptual potential for a 'something' in the 'nothing'. God cannot be the nothing.

We have established that God cannot be the 'everything', a 'something' nor a 'nothing', the concept 'God' can therefore not be considered a valid part of the knowable.

Practical application of the nothing (Meditation on the nothing)

Not being conscious is the 'nothing' of being conscious such as being in the state of sleep. The no mind of the meditating mind is close to this 'nothing' of the conscious mind and thus close to the state of sleep, the difference being that while we are within the no mind state and there are no longer any thoughts, we still retain awareness. In sleep there are neither thoughts nor awareness unless we dream which is not the same as sleep.

The word meditation comes from the Latin word 'meditari' which has a different meanings including 'to reflect on', 'to study', 'and 'to practice'. Meditation is commonly understood as a practice where a person trains the mind or induces a brain state either to realize some benefit or for the mind to simply acknowledge its content without becoming identified with that content. The type of meditation is sometimes connected with the cultural context of its practice, and usually relies on the capacity for focused attention. There is however no one precise definition of the meaning of meditation as the methods differ substantially.

Christian meditation practice for example is the method to target a specific thought, like for example a bible statement and reflect on its meaning as in relation to the love of God. This is quite different to Eastern methods of meditation which tend to aim at the attainment of trance states and meditation practice in the latter is often combined with the practice of mantra, posture and breath control all of which are designed to balance the functioning of the nervous system to withstand the impact of transcendence or 'abnormal' states of the mind. Westernized eastern methods can be different again to all of the above and often center on physical health benefits such as relaxation as well as personality transformation.

I consider most of these types of **conscious** meditation as merely a **form of thinking** because they cannot be justified as **true meditation** in line with the concept of meditation as stopping the mind or non-thinking.

The SEN method of the meditation on the 'nothing' deliberately aims to inhibit brain activity. The rationale here is that in order to get to address the nothing, we have to stop all of experience until there is none. Experience is the collision between somethings and as there are no somethings in the nothing there can be no collisions and thus no experience. The pre-conditions for successful meditation on the 'nothing' are sensory deprivation by means of:

- being in a pain free condition so there is no signaling of pain or discomfort during meditation.
- closing the eyes in a completely dark room to exclude external visual sensations
- sound proofing the meditation space or alternatively using headsets
- not exposed to irritating smells of any kind
- being comfortably seated
- head being in an upright position to avoid falling asleep
- having an empty stomach without feeling hungry
- not under the influence of reality distorting drugs or stimulants such as coffee
- being in a emotionally relaxed state of mind and body
- not entertaining preconceived ideas of what is going to happen
- no wants of anything specific to happen and no expectation of results

This method of meditation on the nothing then is this journey towards the borderline state of the 'no experience' in the knowledge that we will never fully get there or if we get there have no recall of it. To get close to the nothing is akin to approaching non-existence or death. The method relies at the suspension of sensory perception and reduction of brain metabolism, including the suspension of normal sensory perception such as sight, sound, smell, taste and in addition the total suspension of the train of thought and interpretation of thoughts.

The process in this method for me starts with visualizing the black center of the Tetractys as swallowing up the train of thought at point zero of the 'nothing'. All thoughts are acknowledged and then sucked into it, let go. Focus on the symbol is a practical way to take the train of distracting thoughts away to the black center of the Tetractys.

As breathing get shallow and slows down progressively, the internal virtual world fades out, gradually the metabolism of the brain reduces and becomes more and more inactive and relaxed. There is reduced memory or recall in this deepening state since there is little sensory perceptions or thought. Time and space are gradually suspended because the sensory perception of time and space is subdued. Breathing slows down and comes to a halt. There can be an experience of white bright light or total black or greyness in the transitional states and this could be caused by electrical

phenomena and or chemical actions and glandular activity. The color of the 'nothing' is mostly black (all of light is absorbed) or in between grey states. Brain wave pattering in these close to the 'nothing states' are probably theta or may be even delta around 4 - 6 Hz per second but this is only a guess since I have never measured them. Any experience of sensations or visions would likely be most of hallucinatory nature due to some sort of malfunctioning such as under or overactive areas of the brain, but they are not the experience of the 'nothing'. These deep state transitional meditation experiences are similar to reported near death experience and in these cases, the medical cause for any sensations is assumed to be caused by a lack of oxygen in the brain. It is conceivable that during deep meditation where breathing rate slows and even comes to a complete halt, carbon dioxide poisoning of the brain induces bright light hallucination which can be mistaken by the person meditating as spiritual experience.

In summary the SEN meditation method is the deliberate inducement of 'conscious sleep', a progressive relaxation of neural structures, slowdown of breathing and cessation of thought processes to reduce consciousness to the minimum obtainable.

The meditation on the 'nothing' is true meditation in the sense that it aims at stopping the mind. In this state the present seems not to exist, only the 'empty' present and this is experienced as a 'blank mind' with a distortion of the sense of time during this state. Any sensation such as the feeling of bliss, hallucination and so on is just what it is, thoughts about these sensations or feelings, in others words thinking, and would be based on internal consciousness of chemical states or electrical reactions within the nervous system. There can never be a true experience of the 'nothing'.

Is deep trance state hallucination?

In my opinion the many practitioners of meditation who are experiencing moksha, samadhi or nirvana states are really just fooling themselves and mistake sensations induced by abnormal chemical or electrical brain states as some kind of meaningful supernatural experience just like millions of schizophrenics mistake imagined fantasy reality as objective reality. Yes, the altered consciousness and brain states may exist in the perception of the person meditating and they may be felt as bliss, but they are just what they are, sensations and thoughts like other perhaps more intense but in general heavily distorted. In a healthy and happy human being there is no advantage to distort the perception of the 'what is' through trance states even if they experienced as pleasurable.

A hallucination is defined as a perception in the absence of external stimulus that has qualities of real perception. They are vivid and are perceived to be located in external objective space. Auditory hallucinations are very common in schizophrenia. Hallucinations can be associated with drug use, sleep deprivation, psychosis, neurological disorders and delirium. The word derives from Latin 'alucinari' meaning to wander in the mind. Visual hallucinations are perception of an external visual stimulus where none exists, or a distortion of a real stimulus. Visual hallucinations due to focal

seizures lead typically to visions of colored geometric shapes that may move across the visual field and persist up to a few minutes. Temporal lobe seizures can produce complex visual hallucinations of people, scenes, animals and more as well as distortion of visual perception. They may appear real or unreal. Distortions in visual perception during temporal lobe seizure may include size distortion and distorted perception of movement (slow motion). Hallucinations can be caused by sense deprivation (as in deep meditation) when it occurs for prolonged period of times. From research we know that approximately 10 - 39% of population had experienced at least one hallucinatory episode in the course of their life. There may be many possible different causes ranging from a disturbance of brain structure, a disturbance of neurotransmitters, an emergence of the unconscious into consciousness and psychological meaningful experiences consciousness. The similarities between some extreme application of yoga meditation techniques for reaching a state of moksha and deliberate near death experiences (NDE) are of concern. The similarities include the feeling of bliss, the tunnel visions, the vision of bright light, the feeling of conscious expansion and floating and significant sometimes traumatic and psychotic personality transformations after the experience. Meditation is generally the method of deliberately quieting brain function from sympathetic state to deep parasympathetic. We know from scientific research that as the brain shuts down and gets closer to stillness, parts of the brain may experience seizures and de-activation, which would explain hallucinatory experiences. We know that the pineal gland releases hormones prior to death which could explain the bliss state. Yogi pranayama practice is designed to condition the brain/body to tolerate extremely high levels of CO2 levels in the blood stream, which may explain why a yogi is able to come back unscathed from the samadhi states. Apnea or aponea is suspension of breathing. During apnea, there is no movement o the muscles of inhalation and the volume of the lungs remains unchanged. Apnea can be voluntarily achieved (pranayama) as breath holds, drug induced, mechanically induced (as in choking) or as a consequence of disease or trauma. For a patient of sleep apnea it can occur up to 20 - 30 times per hour, every night. Prolonged apnea leads to severe lack of oxygen in the blood circulation. Permanent brain damage can occur after as little as three minutes. Untrained humans cannot sustain voluntary breath holding for more than one or two minutes because of the rise in CO2 tension and drop in ph in the blood and as result the respiratory center in the brain is automatically stimulated which cannot be overcome voluntarily. This is why there is an automatic deep in breath after a period of spontaneous suspension of breath during deep meditation. Luckily for the person in deep meditation, this is an irrepressible reflex because without breathing oxygen levels drop dangerously low within minutes and resulting in permanent brain damage and then death. Trained persons such as world class divers and advanced Yogis can hold their breath more than 3 - 4 minutes. But why on earth would you do so unless you have to in an emergency situation? If a healthy person were to voluntarily stop breathing for a long enough time, he or she would loose consciousness and the body would then resume breathing on its own. Thus one cannot commit suicide this way. Adverse effects of meditation are surprisingly commonly reported such as depersonalization, altered reality testing and the appearance of previously repressed, highly charged memories and conflicts. Psychotic episodes are often precipitated by intensive meditation in patients with a history of schizophrenia. Intensive

meditation can cause anxiety and depression or confusion in healthy persons, although this is not yet well studied. In pranayama the technique of 'Bhastrika' is known to cause damage or even destroy the nervous system, as can very fast Kabalabhati to some extent. When an excess of energy flows through the nervous system such as induced by pranayama the nervous system is shaken and severe mental trauma can result.

Meditation on the 'nothing' on balance?

In my judgment after many years of daily meditation, I'm questioning now whether meditation has any significant benefits other than relaxation and or stress reduction, in fact I would argue that sleep is the most natural and beneficial form of "meditation" on the 'nothing'. I do however belief that regular meditation practice can be very beneficial for people with excess chronic stresses in their life in order to balance an overactive sympathetic nervous system with the parasympathetic nervous system response of meditation on the 'nothing'. On the other hand, if your life is happy and very relaxed, too much meditation may in fact stupefy the mind and damage the brain, the same way as oversleeping is not very beneficial and results in lethargy. The brain is like a muscle. Give it too much relaxation it will atrophy. The brain needs a certain level of stimulation after long bouts of meditation and there are many excellent simple and time efficient methods such as juggling balls, crosswords or other activities particularly those with a high demand on the visual processing structures or thinking capacities of the brain.

The 'nothing', defined as non-existence has either no space or infinite space. Science knows about the black holes and dark energy but has no idea of what they really are, because nothing ever comes out of it, not even light can escape the gravity of a black hole, which is million times the gravity of our sun. We know that everything that comes near a black hole gets sucked in and disappears. Likewise as human we only exist between birth and death and then dissolve into oblivion through death. We don't know what happens at or after death. Nobody ever has come back. The so called near death experiences are due to a lack of oxygen in the brain as are hallucinations such as the reported white light and tunnel experiences. Likewise reincarnation claims have all proven to be false or could simply not be verified. There is no other reality for us but the 'what is' against the conceptual background of the nothing. Whether to pursue meditation or not is up to your judgment. I recommend it but only if you feel that you need to bring more calmness into your life.

4. SPACE

Definition of space:

The contemporary definition of space:

"Space is the boundless three-dimensional extent in which objects and events have relative position and direction. Space/time is distorted by gravitational force, meaning space can be mathematically related to time and gravity."

The classical definition of space:

"In classical mechanics space is a fundamental quantity in physics and can be explored by measurement and experiment. Space is what I can measure. The current standard space interval, called meter is defined as the distance traveled by light in a vacuum during a time interval of 1 / 299.792,458 of a second."

The book of SEN definition of space:

Space is defined as the volume, shape and position of a 'something' in relation to all other somethings and part of the 'what is' in any given moment of time.

The definition differs to the others in that the classical definition applies space to objects and events while the SEN definition applies it to somethings. A something includes entities such as a thought and memories which are also defined by volume, shape and position in form of positional electrochemical charges within material nervous substrates. One could also consider thoughts as events. The contemporary definition incorporates the concept of boundless extent of space which can be bent by time and gravity according to Einstein's relativity theory. while in the book of SEN the infinity of space is considered a quality of the unknowable. We cannot measure infinite space thus no proof can be furnished for it to exist in the context of the 'what is'.

Integration of space into the Tetractys

In the Tetractys the triangle of the 'space' is adjoined by the triangles of 'matter', the 'something' and 'gravity'. It is also connected through time in point zero. This relation echo Einstein's assumption of space to be mathematically connected to time, matter and gravity in his relativity theory.

The concept of the infinity of space is beyond comprehension because only finite things can be visualized and described in terms of volume, shape and position, the three qualities of the spatial

extent of somethings. The infinity of space here is conceptually considered as a relation to the nothing. One could say that space dies in point zero in that it ceases to exist. Conceptually space, time and gravity all cease to exist by contracting into a non existence at point zero, the black hole of the Tetractys. Space as a spatial extent of 'somethings' is tangible only within the knowable world of the 'what is'.

Discussion of the space:

As is often the case with philosophers on metaphysical topics such as space there are divergent views on what space is, over whether it is itself an entity, a relationship between entities or part of a conceptual framework. In **Isaak Newton's** view, space is absolute – in the sense that it exists permanently and independently of any matter in the space. Others such as **Gottfried Leibniz**, argued instead that space is a collection of relations between objects given by their distance and direction from one another. Contradicting both, **Immanuel Kant** said that space is part of an already given framework that humans possess and use to structure all experiences. Kant rejected the view that space must be either a substance or a relation. To confuse matters even more **Einstein** found that space around gravitational fields deviates from Euclidean space. It is really astounding that some of the greatest thinkers of humanity couldn't agree on space in simple terms. The Macquarie dictionary simply puts 'space as the unlimited expanse extending into all directions in which the universe is placed'. Once again we run into the problem of comprehending the meaning of unlimited.

The book of SEN definition of space explains 'space' as an tangible relationship between somethings against its conceptual manifestation as the 'nothing'. Putting the infinity of space into the realm of the unknowable allows us to suspend the unexplainable for the time being, thus the boundless extent or unlimited expanse becomes a non-issue.

Your location matters:

Keeping aside space travelers, all human bodies are each placed at only one unique location on earth at any given moment of time. The same reality for everyone, the body is positioned in the 'what is' at any given moment of time. We cannot leave our skin. We cannot share this very spot with anyone else at the same time. The spot where you are in this very moment is yours and yours only. It is your property and **you own it**. The location is of your choice unless you are held somewhere against your will like for example locked up in a prison. If you follow on with this line of thought your life can be seen as a series of occupations of space in time of your choice. Choose your location your space well because all locations have a quality of being either beneficial, detrimental or neutral to our health and vitality and through this location we are connected at all time with the 'what is' around us. We resonate with the web of life at this location to the extent of sensory perception. It would appear to be beneficial for your well being to strive occupying

beneficial locations for as much and long as possible, places which have clean air, pleasant sounds and smells, beautiful sights and resonating vitality. Detrimental locations include big cities with toxic air, locations near smelly rubbish dumps, smelly public toilets, damp moldy areas and the like. Surround yourself with beautiful objects to enhance your living location for example with artwork, flowers and other pleasant objects. Keep your place clean. Some of the most beneficial locations on the planet have free public access and include national parks, the beaches and rivers. Make the most of it. A good choice is to live next to and in view of a beach, where one can hear the sounds of the ocean, feel the cooling breeze, breathe clean air and have long views out over the horizon. One cannot feel unhappy at a beautiful beach. It is far better to live in a tiny apartment at a great location rather than in a big house somewhere in a uninspiring location in the middle of nowhere. The influence of your living or workplace location can be very subtle but because you tend to spend a lot of time at this location it accumulates to become a significant influence on your well being. If you choose your space well you can't but help to feel well. You truly become where you are.

And what about internal virtual space?

When we close our eyes our consciousness is in internal space and what or who we are in the external world diminishes somewhat. Our virtual world is affected by our internal chemical state and is less limited by time and space compared to the outside. We can travel to a virtual beautiful beach in an instant. For the internal workings of the body, what goes on in our virtual world, our mind or model of the world is as real as what goes on in the outside world. The cells that make up your body don't know much of the difference between the inside and outside of you. If you know how, you can master your virtual world and change your body through mind control. For example if you focus your mind on a location of your body or on an action such as lifting your arm you can increase blood flow to the location of the arm. We can visualize a entire world of somethings inside ourselves. In the virtual world of somethings, everything turns into a form of sensations or thoughts although seemingly different to the more concrete objects in the outside world, but to the body they can be just as real. We are capable to create an internal location of great comfort and pleasure if we know how to control our mind and this is of great use if our external world does not conform to our liking. People unknowingly or knowingly do it all the time and retreat to their inner world if they are unhappy in the 'what is outside'. However if you live in a pleasant location then you probably find no need for this inner fantasia and as a result become more productive and also more relaxed. Day dreaming may affect the brain through its own experience and re-wire it but it doesn't get anything done on the outside.

Space and mind trickery

"The understanding of three-dimensional space in humans is thought to be learned during infancy using **unconscious inference**, and is closely related to **hand-eye coordination**. Unconscious inference is an involuntary, pre-rational and reflex-like mechanism which is part of the formation of visual impressions. For instance the perception of perspective in space is a distortion trick of the mind learned through unconscious inference." Another example is the illusion of the sunset as a motion of the sun. "Every evening, the sun is perceived as going down behind the stationary horizon, although we know that the sun is fixed and it's really the horizon that moves. Optical illusions such as this are all instances of unconscious inference. Similarly peoples perception of each other are influenced by such unintended unconscious conclusions." We only experience the spatial extent of somethings the human way. Other living things or animals such as birds may experience the world in a completely different way than we do. Birds for example have brain processing speed twice ours and their eyesight is far more developed. Relative to them we move in a world of slow motion.

Practical application of space (Yoga asana postures)

Yoga asana is an ancient exercise method to break up the physical, physiological and mental armoring or stiffening of parts of the human bodies and minds by a systematic practice of postures that stretch tissues, stimulates breathing and improves the vitality of organs. They work by changing the **space and shape** of the body to systematically break up habitually chronic tensioned areas within and so restore the flow of vital fluids and nerve impulse transmission. Tension accumulates in connective tissue and muscles until it becomes permanent. For example if you repeatedly experience fear in your life your neck muscle will tension each time and over time thicken and harden. Fear in this way is literally stored in the neck. Tense necks often result in raised shoulders and such people are easily recognizable by their 'coat hanger' body appearance. Yoga asana practice counter acts armoring tendencies and eventually leads to an experience of release. Yoga asana practice should be tailored to your specific shape and body armor and requires the personal guidance by an experienced teacher.

Generally for older persons, all inverted postures such as shoulder stand, halasana (plow) and headstand are especially beneficial because they directly reverse aging effects such as sagging organs and circulation weaknesses. Headstand and handstands can be a bit intimidating for older persons in which case you could also opt for the use of a mechanical gravity inversion unit the latter which in addition to inversion provides invaluable traction to your spine rather than compression as with headstand thereby helping to elongate and rejuvenate your spine.

I regard the dynamic practice of juggling three balls as complementary routine to postural yoga. Juggling forces the brain to improve perception of space as it has to calculate in real time the position of the balls in the air and at the same time coordinate muscle action for catching and throwing the balls. The perception of space is thus linked to spatial movement of the hands as with unconscious inference all of which will help to accentuate accurate perception of three dimensional space. Juggling has shown to slow Alzheimers, Dementia and other ailments of the brain while increasing white and grey brain matter all the while providing cardiovascular benefits and improving dexterity.

5. TIME

As with 'space' there are differing metaphysical interpretations and definitions of the term time.

Definition of time:

General definition of time:

"Time is the infinite continued progress of existence and events that occur in apparently irreversible succession from the past through the present to the future."

Definition of time in physics"

"In physics time is defined as what the clock reads, and in this meaning the second is defined by measuring the electronic transition frequency of caesium atoms. The modern atomic clock probes caesium with microwaves to determine the frequency and the second is defined as 9,192,631,770 cycles of the radiation that corresponds to the transition between two electron spin energy levels of the ground state of the 133Cs atom."

The book of SEN definition of time:

Time is the perceived flow and period by conscious, subconscious and material processes, stored as memory of the progression of flow of past events.

Integration of time into the Tetractys

Time in the Tetractys is defined by nodes zero, 3 and 9 as the triangle located between the triangle of the 'something' (existence) and the triangle of 'consciousness' symbolizing the relationship between the three. One can liken 'time' to the flow of water in a river towards the ocean with the direction of flow sustained by the law of gravity. Time evaporates at node zero into the nothing since at this node there is no direct link to the triangle of 'consciousness'. Time in consciousness or in the 'what is within' depends on sensory perception and interpretation and can markedly differ from the steady progress of measured time in the 'what is outside', the world of somethings.

Discussion of the time:

Time exists internally as the period of consciousness as a 'something'. This means your memory a 'something' in itself is your 'time'. A world devoid of somethings leaves the nothing (non-experience) and thus has no time to be experienced. It takes consciousness to experience time

internally and this experience is highly subjective (speed of metabolism, chemical excitement, external or internal focus). However time, as in the classical definition of physics is also the external movement of somethings independently measured as what the clock reads as the absolute and precise movement of change by specific somethings in space. As with space we make a distinction between internal and external of a 'something'.

Time is commonly divided into the past, present and future. There is a dilemma which the philosophers have not spent enough attention to it. The dilemma is that we are unable to perceive the 'present' because of the time delay of electric impulses in our nervous system as they travel along nervous pathways. The moment we perceive an event it has already become the past. Because of this time delay consciousness can only perceive the past and not the flow of events in real time. The perception of the present is therefore illusionary. The time delay between sensing and interpretation of events in our mind is very small almost at the speed of light. We do not notice this delay thus permitting the illusion of being in the present. Of course if a something is very far away the time delay of sensing increases with distance as for example with the perception of distant galaxies which can be time delayed by years or more. Nevertheless the present is unknowable regardless of distance although we do exist as the 'what is' in the present. **Our consciousness pretends it exists but it exists only in the past as a memory of the interpretation of the 'what was'.**

Since time itself is immaterial and is not a 'something', it can only be mathematically expressed as a defined measurable distance between events caused by changing 'somethings'. However if we consider 'time as memory' of the flow of events it becomes a 'something' that can be thought of as a materialized snapshot in that it is stored in nervous strata of the brain. Here immaterial absolute time has turned into material subjective time.

Time and philosophy:

As with the concept of space contrasting philosophical viewpoints exist. "The realist view explains that time is dimension independent of events in which events occur in sequence. The opposite view maintains that time is not an entity that flows, but it is instead part of a mental construct together with space and number, with which humans sequence and compare events. In this view time is neither an event nor a thing and thus is not itself measurable."

Gottfried Leibnitz and **Immanuel Kant** argue that time is neither an event nor a thing and thus is not itself measurable (time is relational) while **Sir Isaak Newton** subscribes to the view that time is a dimension independent of events, in which events occur in sequence and is measurable (time is absolute)

Simon Critchley on Heideggers 'Being and Time', argues; "The basic idea is that being is time.

That is, what it means for a human being to be is to exist temporally in the stretch between birth and death. Being is time and time is finite, it comes to an end with death" and according to **Martin Heidegger** "we do not exist inside time, we are time". The relationship to the past is a present awareness of having been, which allows the past to exist in the present. The relationship to the future is the state of anticipating a potential possibility and so allows also the future to exist in the present."

The SEN definition is similar to Heidegger's view in conclusion that it presents awareness as illusionary because we have no means to perceive it in real time as it occurs. In the book of SEN context 'being' is thus merely existing in the recorded past, the 'what has been' within restrictions of the virtual world of memory. Nevertheless time in itself is also absolute as the continuous sequence of of measurable events that have unfolded in the past and stored in material strata accessible to interpretation (for example radio carbon dating of objects such as fossils).

Time scales and time keeping:

A galactic year is approximately 230 million years, the duration it takes the sun (and that includes us) to orbit the center of the Milky way galaxy once.

"Ancient cultures such as Inca, Mayan, Hopi, ancient Greek, Hindu and Buddhist have a concept of cyclical time, the wheel of time, of repeating ages, while the Islamic and Judeo-Christian world view regards time as linear and directional beginning with the act of creation by god developed by theologians into the concept of the universe having a finite past with a beginning, the creation."

In the book of SEN time is conceptually considered as eternal and non cyclical with no creation beginning and no end. This is in line with the ancient Greek philosophic view which believed that the universe had an infinite past with no beginning. However we can only fully comprehend time in the context of memory and movement in space between somethings in relation to each other. Time is the accumulated period and/or record of conscious sensory perception of passing events and somethings. All of sensory perception is a collision of sort between somethings recorded in memory in ourselves as well as in the memory of the material world such as fossils and geological strata.

Our limited minds cannot comprehend the eternity of time just as we will never understand the infinity of space. Imagine traveling back in time only never to arrive. Only an infinite and eternal mind could possibly comprehend these concepts, that is to visualize the extent of eternal time and infinite space. Such a mind does not exist because there is no evidence and logic to support its existence. Even if such a mind exists it would be incomprehensible to us little temporal finite somethings.

There are many scales of time. We think of the earth we stand on as stable, but it is only because

our life span is a blip compared to the life span of the earth. Everything is changing all of the time, the whole of earth and indeed the universe is a dynamic moving organism of 'matter and energy somethings'.

Temporal measurement of time is either in the form of the calendar (more than a day) or in the form of the clock (less than a day). A lunar calendar was used as early as 6000 years ago, then in 45 BC Julius Caesar put the Roman world on the solar calendar, which was corrected when Pope Gregory XIII introduced the Gregorian calendar in 1582 which is now by far the moist commonly used calendar around the world. The idea to separate the day into smaller parts is credited to the Egyptians because sundials were based on the number 12 system due to the number of lunar cycles in the year and the number of stars used to count the passages of night. The most accurate time keeping mechanism in the ancient world was the Egyptian water clock. Chinese inventors came up with the first mechanical clock. The next improvement came with the invention of pendulum driven clocks. The most accurate time keeping time nowadays are **atomic clocks**, which are accurate to **seconds in many millions of years** and these are now used to calibrate other clocks.

Perception of time

"Psychoactive drugs can impair the judgment of time. Stimulants lead to an overestimate of time intervals while depressants can have the opposite effect. The level of activity in the brain of neuro transmitters such as dopamine and non epinephrine may be the reason for this, as they influence the firing of neurons in the brain with a higher firing rate allowing the brain to register more events within a given interval (speed up time)." Animals with different sized brains experience time differently from ours. The neurons of brains in animals with very small brains fire faster because the interconnectivity of wiring here is shorter.

Time is the flow of sensory perception of a conscious being between birth and death. In this meaning time is a relational construct of the mind to facilitate interpretation of past and future. On a personal level time only exists when you are conscious but for an observer of you time also exists when you are not conscious such as when sleeping. When we wake up we usually have no idea how much time has passed. You could argue that in the internal world of us as somethings we perceive time only as a relational construct of the 'what is' where time is no longer absolute in the sense of what the clock reads, while in the nothing time does not exist at all.

Time and awareness:

Time is a finite record of the perception of change in the world of somethings between birth and death. A selective record of past sensory perception is recorded into memory and as our record is to be viewed as a valuable commodity because it will influence our future directions. Our conscious and subconscious decision making is based on the interpretation of this record against the reality of

the 'what is'. Our life as a 'something' could be more harmonious if we could improve the quality of that record. We aim to have pleasurable experiences rather than painful ones, meaningful and satisfying experiences rather than just wasting or killing our time, experiences that fulfill our needs and that of others rather than experiences that have little purpose. **You are what you have experienced** and the memory of this will gravitate you towards a matching experience (attraction to pleasure) or away from a repeat of experience (avoidance of pain). A drug addict will likely be drawn to more drugs until he self-destroys or rehabilitates when pain sets in, an exercise fanatic will likely be gravitating to more and more exercise until he gets seriously injured and is forced to stop the activity, an obese person will overeat to the point of death until realizing the folly of overeating and a religious fanatic will seek solace in more and more prayers until he stops in disillusionment through realization that there has never been a god to answer and hear them. It is important to avoid the traps and establish a record of positive experience in the world of the 'what is' such as a painter developing an artists eye, a wildlife watcher delighting at the sight of the natural and a gardener enjoying the smell of his roses. It is helpful to stop for a moment to assess our personal record and become aware of where our personal record of time is leading us to.

Practical application of time (Recapitulation)

The method of recapitulation consists of a virtual journey back in time into the memory of your life. Sit down in a pitch dark room, close your eyes and slowly wander backwards in time, yesterday, last week, last month, last year. Mentally note down what happened to you, all the joyful experiences and also the painful negative ones. You may need many sessions to reach the end of your memory of events perhaps back to your time as a toddler. Perhaps you will discover sequences of events that repeat over and over, such as health emergencies, money issues, relation ship issues, failures and successes. This work is very individual. Perhaps you discover how events link to your current situation. Recapitulate. Then consider what you may have done differently if you have had the choice. It is not possible to change your past other than to delete the record by the process of forgetting. but can change your future. Recapitulation will help you understand your past and how it compels you to act in a certain direction. Once you understand your record you may be able to change the course if that is what you really desire.

6. ELECTROMAGNETIC ENERGY

Electromagnetic energy is one of the four universal forces that are known as 'strong force', 'weak force', 'electromagnetic energy' and 'gravity'. Gravity will be explained in the next chapter and while strong force and weak force are not discussed in detail here they are placed together with electromagnetic energy since they are thought to interact with it and are similar in nature, albeit manifesting at the atomic scale only. The 'strong force' holds most ordinary matter together to create the atomic nuclei and the 'weak force' is the mechanism of interaction between subatomic particles that is responsible for the radioactive decay of atoms. What is electromagnetic energy? An electric current gives rise to a magnetic field and a changing magnetic field induces an electric current. Both combined are commonly known as electromagnetic energy.

Classical definition of electromagnetic energy:

"The electron as the source of electromagnetic energy is a subatomic particle with a negative elementary electric charge and have a mass that is 1 / 1836 that of a proton. Like all matter, electrons have properties of both particles and waves and so can collide with another particles but can also be diffracted like light. An electron generates an electric field surrounding it. An electron moving relative to an observer generates a magnetic field. Electrons radiate or absorb energy in form of photons when accelerated. A system of one or more electrons bound to a nucleus is called an atom. If the number of electrons is different from the nucleus electric charge, such an atom is called an ion."

Although we learned a great deal of how electromagnetic energy behaves in time and space through the science of physics we are still somewhat at a loss to describe it in terms of what it actually consists of. For example a magnetic field is something that exists in space around an object that produces a force which can move a piece of metal. It follows there is an invisible entity, that exerts a force on the metal, but what this force consists of, we don't have as yet a clear understanding. Currently, the interactions of elementary particles and fields are described by the 'standard model' that accounts for the **12 known particles of matter** that **interact via the strong, weak and electromagnetic forces.** However the standard model has not sufficiently been reconciled with classical physics thus putting the application of modern physics and classical physics in differing explicit domains of applicability.

Definition of electromagnetic energy in the book of SEN context:

Electromagnetic energy is a force or force field that can be generated by 'somethings', surround 'somethings' and is capable of colliding with and penetrating other force fields and somethings.

Integration of electromagnetic energy into the Tetractys

'Electromagnetic energy' in the Tetractys is defined by nodes zero, 3 and 4 and is located between the triangle of the 'time' and the triangle of the 'nothing'. Its nodes connect to all other triangles with the exception of the triangle of matter. Time is a factor of electromagnetic energy in its manifestation as frequency that turns a static electromagnetic force into a radiating field. 'Space' here refers to wavelength of 'electromagnetic energy' and the 'something' to the electromagnetic energy's nature as a particle manifestation of 'matter'. 'Gravity' distorts electromagnetic energy and the nothing absorbs it (black hole).

Discussion of the electromagnetic energy:

The chemical bond between atoms occurs as a result of electromagnetic interactions and including strong forces and weak force, as described by the law of quantum mechanics.

"Independent electrons moving in a vacuum are termed free electrons. Electrons in metals also behave as if they were free. When free electrons move they produce a net flow of charge called an electric current, which generates a magnetic field. The velocity of electrons in a conductor is about 75% of light speed."

"According to classical theories on electromagnetic energy, forces are transmitted by fields but in quantum field theories the force fields are pictured as being made of various elementary particles called bosons, which are force carrying particles that fly back and forth between matter particles and thus transmitting the forces. The matter particles are called fermions. Electrons and quarks are examples of fermions."

"The photon, or particle of light, is an example of a boson. It is the boson that transmits the electromagnetic force. What happens is that a matter particle, such as an electron, emits a boson, or force particle, and recoils from it. The force particle then collides with another matter particle and is absorbed , changing the motion of that particle."

"A photon is an elementary particle, the quantum of all forms of electromagnetic radiation including light. It is the force carrier for electromagnetic forces."

"The photon has zero rest mass and the interaction with matter are observable at the x-ray and macroscopic levels".

In 1905 A. Einstein suggested that electromagnetic waves could only exist as wave-packets. He

called such a wave packet the light quantum. The word 'photons' derives from the Greek word for light 'phos'

Photons are emitted in many natural processes. **During molecular atomic or nuclear transition to a lower energy level, photons of various energy will be emitted**, ranging from radio waves to gamma rays.

According to Einstein, as an electron approaches the speed of light, from an observers point of view its relativistic mass increases thereby making it more and more difficult to accelerate.

Electric and magnetic forces behave like gravity, with the important difference, that low electric charges or two magnets of the same kind repel each other while unlike charges attract. Electric or magnetic forces are far stronger than gravity, however we tend not to notice them in our bodies because a macroscopic body contains near equal numbers of positive or negative charges that generally cancel each other out.

Electric and magnetic forces are related: a moving electrical charge causes a force on magnets and a moving magnet cause a force on electrical charges. An electric field extends outwards from electrically charged objects. Both electric and magnetic fields are static. When the factor of time is brought in through change of the intensity of the field, an electromagnetic field results. The fluctuations in the field radiate outwards from the transmitter as waves of energy but there is no clear understanding of how that happens. Each energy wave consists of an electric field and a magnetic field at right angles to each other and both at right angles to the direction the wave is traveling. The number of waves formed in one second is the **frequency (time)** and the distance the energy travels (at the speed of light) during one oscillation is **wavelength (space)**. Other waves such as microwaves, radio waves, infrared light and x-rays differ from the visible light in their wavelength.

The following paragraph is an extract from the book The Body Electric by Robert O. Becker and Gary Seldan:

"Radio waves have wavelengths of a meter or more, while visible light has a wavelength of a few ten millionths of a meter, and x-rays a wavelength shorter than a hundred millionths of a meter. The shortest rays are gamma rays a tenth of a billionth of a millimeter long. Along with x-rays, gamma rays and the shortest Ultra-violet wavelengths are termed ionizing radiation, because their high photon energy can knock electrons away from atoms, creating highly reactive ions where they don't belong and as a consequence are thus harmful to living organisms. The lower frequencies beginning with longer UV wavelengths are non ionizing. The most non ionizing wavelengths are **ELF** waves at 10 Hz and 18600 miles wavelengths. Except for **light and infrared heat**, we can't perceive any **electromagnetic frequencies (EMF)** without instruments. Today's world is awash with all kinds of

EMF and we can no longer get away from it. The human species has changed its electromagnetic background more any other aspect of the environment. The **density of radio waves** around us is now 100 – 200 million times the natural level reaching us from the sun. Electromagnetic contamination is unprecedented and we have very little knowledge on how this will affect us and other life-forms especially considering the possible long-term effects."

"Our sun radiates all wavelengths, but its radiation is most intense in the wavelengths that are visible to us. Electromagnetic waves travel at a speed of about 300000 km/second. Electromagnetic forces are responsible for all of chemistry and biology." The main source of light is the sun and it provides the energy that green plants use to create sugars, which release energy used by living things.

Light is electromagnetic radiation within a certain portion of the electromagnetic spectrum, also referred to as visible light and usually defined as having wavelength in the range of 400 to 700 nanometer between the infrared and ultraviolet wavelengths. The visible light range manifests in the familiar rainbow atmospheric effect.

The primary properties of visible light are intensity, frequency and polarization while its speed in vacuum is roughly 300000 m/s.

In physics the term light sometimes refers to electromagnetic radiation of any wavelength in this sense includes gamma rays, x-rays, microwaves and radio waves.

All light is emitted and absorbed in tiny "packets" called photons and exhibit properties of both waves and particles. When light in its wider sense interacts with single atoms and molecules its behavior depends on the amount of quantum it carries. Visible light consist of photons that are at the lower end of energies in the capability to cause electronic excitation in molecules.

Electromagnetic energy influence on humans: (from the book The Body Electric by Robert O. Becker and Gary Seldan) :

"A lightning discharge consists primarily of a flow of electrons. The electric potential needed by lightning may be generated by a tribo electric effect (rubbing of the body) On the global scale more than 5000 lightning strikes per minute constantly refresh the earths almost unlimited supply of free electrons. A simple lighting storm can contain more energy than 10 atomic bombs."

"The earth's surfaces and ionosphere form an electrodynamic resonating cavity that produces micro pulsation in the magnetic field at extremely low frequencies mostly of about **10 Hz (10 cycles per second)**. The potential interaction among this electromagnetic phenomena and life are almost infinitively complex. All growth and cell repair, which depends on regulated cell division, are

synchronized with the earths pulsating electromagnetic field. Research found that the circadian rhythm in humans get disturbed and de-synchronized when the subjects are isolated from the earths field (in a room shielded from any electromagnetic fields). Then when an artificially induced electric field (0.025 volts per centimeter) pulsating at **10 hz** was introduced the subjects restored normal patterns to most of the biological measurements. This frequency in the micro pulsations of the earths magnetic field is recognized as the prime timer of biocycles. It has been shown that very small magnetic fields influence the pineal gland , which in turn produces melatonin and serotin, two neuro hormones that, among many other functions, directly control all of the biocycles. Research has demonstrated that applying a magnetic field of half a gauss or less, will increase or decrease production of melatonin and serotin, depending on the direction of orientation of the magnet (either adding or subtracting from the earths field)."

"Interesting is also the fact that shining a light on the head somehow modifies the glands output even though its located deep in the head and we don't know how it can react directly through light. Some animals use sensory perception of the magnetic field for spatial orientation. We know now that even in humans there exist magnetic deposits close to the pineal and pituitary glands in the sinuses of the ethmoid bone, the sponge bone in the center of the head behind the nose and between the eyes. It is theoretical the seat of our magnetic dowsing ability and possibly responsible for the **transmission of bio cycle timing cues from the earths field micro pulsations to the pineal gland**. A sensitive detector in the brain if it had nerve connections to the visual cortex might perceive the magnetic field."

The Earth's electric field is mainly a **continuous direct current (DC)** producing field. Throughout history, life on the planet has attuned our biology to this subtle field. By comparison, home wiring systems in Australia use **50-cycle per second alternating current (AC)** which is foreign to our biology. This, and other forms of man-made environmental electromagnetic fields (EMFs) are being researched as factors in a variety of stress-related responses. Many people are clearly sensitive to EMFs. Studies show an "association," but not cause and effect, between living near power lines (or prolonged exposure to strong EMFs at work) and higher rates of health problems, such as childhood leukemia, brain tumors, certain cancers, birth defects and miscarriages.

Grounding and electromagnetic energy in the human body:

The human heart, brain and nervous system are electrical subsystems operating within our bioelectrical bodies. We understand that the earths surface has a negative charge and when we connect to it, the earth restores the electrical stability of our body, which improves the self-regulation and healing processes within.

Earthing or grounding is a practice of being in **direct physical contact with the ground** (such as being barefoot) or with a device connected to electrical ground the connection **which allows free**

negative charged electrons from conductive earth or water to enter the body and ionize the blood.

Through their own direct electromagnetic current field all living organism are plugged into the electromagnetic field of the earth, which in turn varies in response to the sun and moon. It affects the pineal glands, production of melatonin and seratonin as well as acetylcholine levels in the brain stem. Each of our bodies cells is like a battery which run on a specific millivoltage and frequency. Disease in general is thought to be caused when cells have too little voltage and running at too low a frequency. Being in tune with the earths energy restores and maintains the natural balance and electromagnetic charge of cells.

Being grounded or connected to earth allows us to experience the electromagnetic energy field of the 'everything' in the form of inflow from a connected ocean of free electrons and this experience will always be beneficial, whether it is as a mild relaxation response, reduction of inflammatory conditions or in the form of a more dramatic ionization of nervous tissue effects. The electrons equalize the electric potential of a barefoot body to ground and proceed to enter the body where the influx of negative electrons manifests as beneficial effects such as equalizing free radicals, thinning of the blood, stimulation of parasympathetic nervous system responses and reducing inflammation.

Humans like all other animated life forms are **sensitive to the electromagnetic field phenomena on earth** and this connection is expressed through many ancient myths.

Electromagnetic energies and the Rainbow Serpent:

The snake, serpent and dragon are some of the oldest symbols of mankind, found together with fertility goddesses in some of the worlds earliest sculptures. Because it lives in the ground, the snake is an emblem of the nurturing earth mother. In psychoanalytic terms a snake with its dual above/underground nature can be a sign of an emerging unconsciousness leading to new growth and maturity or a shift in gravity of mind. Many ancients attributed healing power to the snake, the belief shown as the caduceus, the snake entwined staff which to this day has been adopted by the medical profession. The Christian imagery however perverted this ancient symbolism by emphasizing a dark side, casting the serpent, the evil tempter of the garden of eden as a spiritual threat. In contrast Indian yogis revere the serpent as a spiritual guide and know it also as kundalini (Sanskrit for kund = to burn, kunda = to coil or spiral), a concentrated field of energy vital to life. In this meaning kundalini is the energy which moves and animates all creatures. She enters each and every creature and thing. The new cannot grow without the removal of the old, in the same way the Australian Aboriginal version talks about the Rainbow Serpent as swallowing the old and regurgitating the new. The 'rainbow serpent' is an Australian Aboriginal term used to describe a common deity, often a creator god in their mythology. There are similarities between the scientific concept of electromagnetic energies related to earth energy fields, the Hindu concept of kundalini

and the concepts of emanation and actions of the Australian aboriginal rainbow serpent. Consider these myths as perhaps an ancient intuitive way to describe the effects of the universal creative impact of the earths electromagnetic energies on our bodies.

When the rainbow is seen in the sky it was said to be the rainbow serpent moving from one waterhole to another. We know that rainbows are an optical effect often associated with rain clouds and lighting storms the latter which are known to recharge the pool of electrons in the earths conductive surface as well as negative ions in the air.

The rainbow serpent is viewed as a giver of life through its association with water. We know that water increases the conductivity of soils and so facilitates the flow of free electrons and ions in the ground. Aboriginals, just like EMF sensitive persons and most animals sensitive to ground conductivity naturally may tend to feel the difference between being grounded (feeling more relaxed) and not being grounded (feeling tense) although they would probably not know why.

The rainbow serpent is understood by Australian aboriginals to be of immense proportions, to inhabit deep permanent waterholes and to be in control of life's most precious resource, water. We know that dry soil is an electric insulator and water a conductor of electricity. The interconnected pool of electrons in moist soil and water holes could be interpreted as a body of immense proportions. In some aboriginal cultures it is considered the ultimate creator of everything in the universe just as the western scientific understanding of electromagnetic forces to permeate the entire universe as different forms of light and energy and that they are responsible for all chemical reactions in living organisms.

Kundalini is an ancient Hindu concept of a special kind of prana (shakti or power) apparently normally latent and stored at the base chakra. The prana concept could be likened to bio-electricity fields within the human body. Kundalini is said to be able to awaken and travel to the top of the head via a special subtle channel in the spine on the way clearing blockages in all chakras and ultimately leading to unification with its positive equivalent in the brain where it creates a condition of bliss. The kundalini experience could be explained medically as the simultaneous hyper activation of both the sympathetic and parasympathetic nervous system through ionization. Yoga, the Hindu practice of self cultivation, has as its ultimate goal the deliberate awakening of kundalini and experience of enlightenment via a system of physical and mental practices. The experience is said to result in dramatic personality change, dissolution of chronically tight tissue and a subsequent physical and mental re-building on all levels. It is speculated that in certain circumstances, such as with strong grounding, the nervous tissue in the spine could possibly be strongly stimulated by **electromagnetic field ionization** involving nitric oxide a gaseous nerve transmitter present in spinal tissue.

The Australian aboriginal myth of the rainbow serpent almost always includes concepts of

swallowing and regurgitation and is in effect very similar to description of the Hindu kundalini experience of being overwhelmed by kundalini, resulting in traumatic breakdown and rebuilding. The aboriginal experience grounding experience could be initiated by ritual and dance (barefoot stomping the earth) at special sacred sites near water bodies with high conductivity, where the rainbow serpent energy was believed to be strongest and/or to reside. Both the Hindu kundalini and Australian aboriginal rainbow serpent concepts use snake or serpents as the symbolic personification of the creative force. The yogis of old insisted that all yoga practice to occur on either animal skin (tiger) or on grass mats both of which are conductive to the flow of free electrons from the ground. In contrast modern yogis practice tend to practice on rubber mats which are insulators and so prevent grounding of the bio electric body and therefore may be negating the purpose and benefits of yoga.

Practical application of electromagnetic energy (grounding)

"Standard rubber/plastic or composite soles **do not conduct the earths electric energy**. For **earthing**, unless you walk barefoot you need leather or hide soles, the shoes of the past. The foot perspires and the moisture conducts the energy from the earth through the leather and upside into the body."

"Since **1960** most people in the world wear shoes with insulation, rubber or plastic soles and so separating themselves from the ground potential. Also we no longer sleep on the ground as in historic times. During recent decades, chronic illness, immune disorders and inflammatory diseases have increased dramatically and while it was thought that this is due to environmental factors only more recent research indicates it could also be due to our disconnection from grounded earth."

Grounding or earthing is the practice of connecting a bare area of your body with earth or a conductor (such as a piece of wire) connected to earth. It is the same as walking barefoot on the bare earth, grass or any other conductive surface. Earth must not be completely dry in order to be conductive. Concrete slabs can be somewhat conductive. The easiest way to ground is to be barefoot on the ground and other simple ways include being in the water of natural water bodies or a concrete swimming pool (not plastic) or using earthing products such as blankets, mats or wristbands which in turn are connected to the earthing wire as in domestic electrical systems.

"Earthing can protect from some human-made electromagnetic fields (EMF) especially from lowfrequency EMF's, particularly of 100.000 Hz or less, which includes EMS from alternate current (AC) and most household appliances. **AC voltage in your body** goes up when you get closer to appliances, light fixtures and wiring and is a measure of the AC electrical field in your body. You can easily measure induced AC voltage of your body with a standard hand held multimeter. While electromagnetic fields have no electrons in themselves and thus have no electrical current, they can make currents where electrons exist, that is in a conductive medium such as your body, which contains a large number of charged ions called electrolytes, that occur within your blood and around your cells. Those electrons will wiggle within your body as induced by the EMF and as a result body voltage goes up. This induction can only occur in an ungrounded body and when you are grounded electrons can't wiggle and body voltage in an earthed person is near or at zero Volt. I have found my voltage anywhere in between 0.5 and 3 Volt within my home at ground floor when not grounded and even as high as 10 V when standing near power lines or higher up in multistory buildings. When touching ground through a wire connected to the grounding pin in domestic wiring system, the induced voltage will instantly drop close to zero and the so called 'umbrella effect' will shield the entire body from AC induction. Nobel Prize winner Richard Feyesan said that when the body's potential is the same as the earth's electric potential (and thus grounded), it becomes an extension of the earths gigantic electric system....and thus becomes the working agent, that cancels, reduces, or pushes away other environmental electric fields from the body (umbrella effect)."

Pets are known to be naturally attracted to grounded sheets and mats inside a house and sensitive persons can feel the difference between being grounded and not grounded.

Grounding, the process of physically connecting to earth is known to improve levels of cortisol, a hormone secreted by the adrenals which helps us sleep better resulting in reduced morning fatigue. Studies also show that earthing increases the charge on red blood cells to reduce blood viscosity which normalizes cortisol levels and improves sleep.

"Grounding brings in mobile electrons and negative ions from the earth into your body and will neutralize excessive free radicals levels present during chronic inflammatory conditions. Earthing has a positive effect on the electrical activity of the brain, muscles, autonomic nervous system and blood circulation when under the influence of tense and stressful conditions. Free radicals or reactive oxygen species (ROS) are essential to life and attack bacteria or other pathogens. They also break down injured cells. The benign ROS are delivered by white blood cells directly to a site of inflammation. They are not readily neutralized by electrons from the earth because they are delivered to a specific location at very high concentrations and this activity is focused on damaged cells and pathogens. In an ungrounded body free radicals leaking from a site of injury will damage surrounding tissues, which coagulate into an 'inflammatory barricade" which when chronic can leak toxins into the system."

"Earthing significantly reduces the pain, soreness and recovery time for delayed onset muscle soreness that sets in 24-48 hours after intense physical activity. In the study grounded subjects showed substantial lower white blood cell counts and marked lower pain levels."

"Earthing brings negatively charged free electrons from the earth into your body and to the surface of your blood cell, and there improves the so called zeta potential, the negative surface charge that repels blood cells and keeps them separate and prevent blood knotting by the average factor of 2.7

times after just two hours of earthing. The link between blood viscosity and cardiovascular disease is well established. Regular moderate exercise, a diet low with no trans fat and sugar and no smoking will all reduce blood viscosity and so support circulation as will earthing."

The parasympathetic nervous system is the relaxed mode of our autonomic nervous system, which regulates heartbeat, breathing, digestion by unconscious bodily processes. Instant and clear change in muscular tension was found in subjects as soon as they started earthing, indication of a switch to parasympathetic mode. One of the most striking earthing benefits is the rapid calming influence within the autonomic nervous system that regulates functions like heart and respiration rates, digestion, perspiration and urination.

My practice of grounding:

For the past ten years I have been grounding myself for a great part of my time, at night sleeping on an earthed mat and during the day occasionally wearing an earthed wristband when sitting on a desk for any length of time. I also use a conductive carbon yoga mat connected to the ground wire in the domestic electrical system. When sitting outside in the garden my bare feet rest on the ground. The benefits of this practice include significantly improved sleep and an improved function of my immune system evident from a total absence of disease and infection over this ten year period. Other benefits include improved bladder function, improved relaxation during meditation and a general feeling of well being.

If you change only one thing in your life as a result of reading the book of SEN start grounding or earthing yourself. Even if you feel you are perfectly healthy now, you would be better off earthed. Earthing is not known to do any harm in fact it only has positive effects. In contrast the effects of not being grounded and living with the invisible EMF fields although subtle and not always recognized can have grave potential long term health consequences. Measure the effect of EMF in your living and workspace on your body with a multimeter and be convinced.

7. GRAVITY

Gravity is a natural force that brings all 'somethings' toward one another including stars, planets, galaxies and even light and sub-atomic particles. On earth gravity gives weight to physical objects. Although it has an almost infinite range of influence it is by far the weakest of the four fundamental interactions of nature (gravity, strong force, weak force and electromagnetic energy) and so has very little influence at the atomic and sub atomic level. In contrast, on the macro scale it is responsible for a range of phenomena that include the formation of galaxies, the movement of planets and star, the orbit of the moon around the earth and tides.

Classical definitions of gravity:

The two following classical definitions of gravity demonstrates that it is possible to have views from different observation points or areas of applicability and both being accepted as scientifically correct descriptions of truth.

In one view, gravity is accurately explained by the general theory of relativity (Albert Einstein in 1915) which describes gravity not as a force but as a consequence of the curvature of spacetime caused by the uneven distribution of mass/energy and resulting in gravitational time dilation where time lapses more slowly in lower (stronger) gravitational potential.

In the other view, gravity is described by Newtons law of universal gravitation, which postulates that gravity causes a force where two bodies of mass are directly drawn to each other, where the attractive force is proportional to the product of their masses and inversely proportional to the square of distance between them.

In both definitions, gravity brings all things with energy toward one another, including stars, planets, galaxies and even light and subatomic particles. Gravity is also responsible for creating spheres of hydrogen where hydrogen fuses under pressure to form stars. Gravity has a theoretical infinite range, although its effects become increasingly weaker on farther objects. Gravity is the dominant interaction at the scale of planetary systems and is the cause of formation, shape and orbit of astronomical bodies.

Stephen Hawking's take on gravity:

"Gravity shapes space and time. **Spontaneous creation** is the reason there is something rather than nothing, why the universe exists and why we exist. On the scale of the entire universe the positive

energy of matter is balanced by the negative gravitational energy, the sum of total energy in the universe is zero. Time behaves like space. Matter changes the geometry of space/time into space/time curvature."

Explanations of gravity through the science of physics are quite difficult to grasp by the average person including myself. Gravity as with electromagnetic energy is a field that exerts a force between somethings but I understand that we still do not know precisely what this forcefield is made of.

Definition of gravity in the book of SEN context:

In the book of SEN I use the term gravity in a dual sense not limited to the field of physics. I liken gravity of mind to the attraction our beliefs and memory exerts on determining our actions and behavior and have termed this the 'gravity of mind' as distinct from 'gravity of matter'.

'Gravity of matter' is the force that attracts two somethings to each other. Gravity as the 'gravity of mind' is understood as the inertia and resistance of virtual mind structure which causes tension between the something we are now and that which as a something in the 'what is' is trying to manifest through the gravity of its structure'.

The mind is firmly anchored by memory and beliefs within its structure of neural connectivity. The totality of memory and deep seated belief exerts seeks perception towards affirmative manifestation in the 'what is'.

In order to avoid confusion between the two meanings of gravity, I will refer to 'gravity of mind' in the context of consciousness and simply to gravity in the context of physics,

Integration of gravity into the Tetractys

The triangle of Gravity/gravity of mind is bordered by the triangles of 'space' and the 'nothing' defined by nodes 0, 7 and 6. There is a close link between gravity and space as is in Newtons law of gravitation where gravity inversely diminishes with the square of distance or space between somethings. Gravity is also connected to all other triangles of the Tetractys through its nodes except to the triangle of consciousness. Here as a metaphor, 'gravity of mind' is understood as unconscious mind matter substance in form of a like mass of like connected neural substrates while 'consciousness' is the mirror reflection of the field pull of this mass of neural substrates. When you look at yourself in a mirror what you see is not you (mind matter substance) but a reflection of you. Your consciousness is akin to the reflection of you in the mirror. The amount of neural substrates connected to a certain belief or memory determines the force field that this belief exerts as 'gravity of mind' towards matching action in the 'what is'. For example if you had many pleasurable

experiences of eating chocolate cake in your past, the sheer amount of memory will make the sight of chocolate cake in the 'what is' irresistibly attractive to you.

Discussion of 'gravity' and 'gravity of mind'

In the book of SEN gravity has a dual meaning, firstly, gravity as one of the universal forces in physics and secondly as a definition of 'gravity of mind', the pull exerted on events in our lives.

'Gravity of mind' also plays tricks with how we perceive physical gravity. We always think the earth as under us while in reality there is no such thing as upside or downside. From where you are now just image a double of your body be located on the other side of the planet. Would the double still be standing on earth or wouldn't you see it hang upside down? When we stand we think our weight is weighing us down while in fact it is the mass of the earth that pulls us down. On the other side of the planet where we hang upside down it is also the earth that exerts the pull to prevent us from falling off the planet.

Our gravity of mind influences perception of what is true. An equally valid but different view of truth could also be perceived as being true if you were having different beliefs and memory. There are many conflicts of gravity of mind in life such as in opposing political parties or religious faiths. Both opposing sides think they are right, they are, but only in a sense that they are consistent with their own policies and previous actions and the gravity of memory of their historic actions, their particular viewing point. Is a glass half full or half empty? Both statements are true depending on the interpretation of the observer.

Here is another example. Is caging an animal for food production morally acceptable? It depends on the individual 'gravity of mind' of the human animal and also on the animal as observer. The farmer may think it is good business, the consumer may think it is necessary and pleasurable for him to fill his gut with the tasty carcass of the non human animal, while the animal disagrees and is suffering in unimaginable ways. The typical egg laying hen is caged in for its entire life on a footprint area of an A4 size paper sheet, fed nothing but the same bland manufactured food in the company of thousands other screaming noisy and near crazy hysterical hens, that collectively will never see the outside world, all of which after one year will meet their destiny, the meat mincer. Imagine for a moment that you are that hen. In the hens view depriving it of its freedom and genetic purpose as a bird (a sentient being capable of the miracle of flight), robbing its purpose for a lifelong torture and pain is surely unacceptable, wouldn't you think so? If you are a human with the power of empathy you would suffer together with the hen and be disgusted at the sight of the tortured animal. On the contrary if you are a human who loves his eggs for breakfast and chicken drumsticks for lunch, your gravity of mind would guide you perfectly to subconsciously avoid seeing the concealed animal cruelty behind the closed doors of the poultry farm and so safely ignore the truth of the 'what is'. This example illustrates viewpoints with opposing interpretations of 'what' is based on what each

person beliefs to be true on the weight of their accumulated experiences. One side experiences the truth of the 'what is' (cruelty and suffering) the other sees the nothing of the same 'what is' by looking away from it.

Although all our actions are subject to our gravity of mind, we all do have the power to reshape our gravity of mind, at least in theory. The key lies to programming the wiring of our mind which science has shown possible. We now know that the brain has plasticity, that is it can change itself even on a concrete physical level through "**thinking**" at any point of time. **We literally become what we think.** We can neutralize an unwanted gravity of mind if we deliberately adopt a suitable opposing view with conviction while at the same time cease reinforcing old memory structures. More of that later.

The problem of distortions:

All of us are distorted in some way. Distortions in our minds deny us a clearer perception of the 'what is' and can bend the realization of our true purpose and destiny. Distortions in our mind are the irrational beliefs we harbor. Just as our spine can curve abnormally due to gravity of planet earth and cause a more general permanent distortion of the body, our personality too can become delusional and abnormally bent due to the gravity of irrational beliefs.

We are reliant on a clear perception of the 'what is' in order for our decision making and actions to be coming out of truth and not out of delusion or un-truth. However, nobody is perfect, in fact perfection could be considered a distortion in itself. A healthy rational mind has a little distortion and one can quite happily live with it and that is fine and socially acceptable. Distortions become a problem when they threaten your own life or that of others including other lifeforms and/or seriously undermine health and happiness in ourselves or others. The most common distortions in human life are obesity, alcoholism, addiction to tobacco and other stimulants/relaxants, addiction to drugs (mind-altering substances), reliance on medicinal drugs that cause side effects, personality disorders (includes stealing, vandalism, depression, greed), blocked ability to love (which leads to cruelty, violence and/or indifference to life), adoption of extreme religious beliefs (leading to fanaticism, intolerance and violence), life style diseases of all kind (such as cardiovascular problems arising from meat consumption or lack of grounding) and even addiction to excessive exercise or extreme forms of ambition. The lists goes on. Many people have a few distortions of this kind and most people would probably admit that they would lead a happier life if they just could get rid of them and in fact may have tried to do so repeatedly without success. What is preventing them to adjust those distortions successfully, is nothing other than the gravity of mind, that is the combined power of our individual and personal total memory and beliefs wired into our brains. There are no simple ways out nor are there any magic pills and no amount of money can buy a procedure or gadget to rid of these kind of habitual chronic distortions easily. However there is a way out and the key to it lies in yourself.

Strong political viewpoints, deep religious convictions, ingrained addictive habits and unrealistic beliefs relating to self-worth are the main gravitational fields that can hold us in bondage towards a distorted vision of ourselves thus stifling our minds to creative thinking. We can free us from these gravitational fields by neutralizing them through adoption of opposite convictions.

The **practice of practice of anti gravity** that follows is a method for re-wiring of the brain to achieve lasting change from distortion to the desired state. For example if the distortion is obesity, the desired state would be a slim, attractive and fit body and the **way to it is through re-wiring of the brain.**

Consider that all humans have brains with roughly the same number of neuron nerve cells (100 billion) and the only difference that separates a creative genius such as Einstein to an average person is the wiring of those neurons. What we know from brain research is that the brain has **plasticity** and can be substantially re-wired at any stage of life even into old age. Through re-wiring, it is deemed possible for everyone with a healthy brain to increase his or her intelligence through the effect of deliberate training by **directive thought processes**.

Practical application of gravity / anti-gravity

One of the most common distortions in humans of our times is that of obesity. The following will outline the anti-gravity principle using obesity as an example. Obesity, especially in the industrial world is now wide spread and fighting it has become a multi billion dollar industry of magic pills and cures. Yet, despite the effort, it's rise to perhaps the number one health problem is unchecked. And yet it could effectively be re-solved by obese persons through re-wiring their own brains. Obesity is not by birth despite that in some case genetics may play a minor role. Obesity is rather a skill acquired over a relatively long period as early as childhood up to very late in life. One learns to become fat successfully by training oneself to chronically overeat especially with the wrong type of foods at the same time conditioning ones body to cope with it. The repetitive action of overeating particularly when combined with a sedentary lifestyle (lack of movement) inevitably leads to an accumulation of fat stores. Six meals a day add up to 35000 meals over 10 years and even just overeating by 2 grams of fat at each meal would add 70 kg of blubber to your body. Obesity like any other consequences of human behavioral distortions can creep up on you to the point where it becomes difficult to remedy it. The repeated action of overeating wires deep into your memory and in most cases reinforces matching belief systems (possibly acquired in childhood early on from parents and teachers, friends, siblings and so on) that say it is acceptable to be chubby and then later that it is acceptable to be obese. Obesity as a form of cruelty to your body and a kind of slow motion suicide it is certainly not. Once acute and chronic health problems arise, such as cardiovascular implications and events, bio-mechanical issues, loss of attraction to others, relationship problems and a plethora of other hindrances associated with obesity, the desire and

need arises through the pain of suffering to remedy the situation. After years of denial of the problem, the first attempt usually is the easy way out, in form of a search and grab for the magic pill and when that fails medical solutions such as surgery or even the adoption of sudden excessive exercise regimes combined with extreme fasting regimes replacing one system of violence to the body with another. When all fails, resignation and depression set in. These attempts to reverse obesity through direct action usually fail because they do not address the cause that the problem is anchored in your **gravity of mind**.

When you hold your attention on one thought over 15 seconds, in full consciousness, you lift that thought from short-term memory storage to longer-term memory storage. The thoughts you think affect your beliefs, and your beliefs affect your actions in your life. Each action of your life enters the memory storage in your brain, and if you repeat that same action often enough, it will turn into unconscious habit. When attempting to consciously rewire your brain you must have conscious intention and the intensity of that intention will then determine the strength of the rewiring effect. The effect is enhanced through frequent repetition which in time will establish a new direction of gravity of mind, a change that is manifested as physical change in the brain in its growth of new connections between neurons. It is not necessary for you to have faith in the process as long as you really want it to happen, the willed desire of change is the overriding factor for the brain and is more important than the random background thoughts of doubts of success. You become your desire.

The practice of 'anti gravity' weakens an unwanted 'obesity gravity of mind' in two ways, firstly by stopping the repeat of wiring for obesity and secondly by wiring-in a more appropriate behavior. In the case of obesity the re-wiring starts by the **not doing of overeating in other words the** nothing of eating. The nothing of eating is not to over eat in other words to eat a little less without going into an outright fast or starvation. By skipping a meal or reducing the caloric content of the meal we deny our memory of sensory perception of over eating and thus avoid refreshing and reinforcing this memory of overeating of the past. In time the memory of overeating in the brain will fade out through the natural brain/mind process of forgetting. So in a nutshell the practice of the nothing of obesity is the forgetting of obesity. This process will take about a year. You will have to sustain controlling your diet for at least a year. A practical trick to achieve this diet control is to stop eating while you are still hungry. However it is not just stopping overeating from a caloric point of view. You really need to sit down and think about all the habits and actions that have contributed to getting fat or obese and that could differ from person to person. It could be a fondness of chunk food or other nutritionally useless processed foods. We know from research that foods particularly processed food with a certain sugar to fat ratio induce overeating (by releasing the feel good hormones in the brain) and so become the biggest causal factor of obesity. So really you need to look at what you eat, and if that is processed foods with the high combined sugar/fat content then you need to practice the nothing of eating them, that is to cut them out from your diet completely.

If you are overweight/obese and have decided to make radical changes to your diet, you should keep it simple and use fiber rich and natural foods only, by cutting out all sugar and cheap cooking oils. Instead use a little bit of natural honey and liberal virgin cold pressed coconut oil/olive oil or similar. Make sure the combination of foods is balanced and contains protein, starch, vitamins and good fats in order to maintain healthy body functions and sufficient energy. We are natural omnivores and mainly vegetarian, just like our relatives the gorilla (97 % vegan) and chimpanzees with little or no adaptation to regular meat eating, the meat eating habit which leads to a plethora of problems such as cardiovascular disease to mention but one. You will feel better physically and morally the very moment you stop consuming animals and animal derived products including all of dairy products. However, if you can't live without animal derived foods, at least try to reduce them, and keep in mind it is your clogged arteries and you are the only one that can change yourself. If you take regular trips to your neighborhood takeaway shop you need to practice the nothing of going there. Take a note on a piece of paper all those actions that contribute to being obese and take heed, all of the memory of those past actions need to be taken out of your brain through the process of forgetting. And forgetting is accomplished only by not refreshing and not revitalizing the memory through sensory perception of new repeat events.

The trap of dopamine:

Meat like sugar, chocolate, and cheese, has an opiate effect in the brain, which in turn triggers dopamine release. Researchers have shown that when people are given a drug that blocks opiate effects in the brain, they are no longer interested in such foods. When you are stressed out, emotionally upset, lonely or tired then you are unlikely to look for healthful foods that do not provide the dopamine hit and as a result you are seduced to turn back to 'dopamine foods'. Those are the times where you have to turn to exercise in order to get 'dopamine substitution' from the body's natural endorphins that are released during exercise. If you are lonely and feel the need for dopamine foods you can also fight back by seeking out comfort through friendships and intimacy or other forms of social engagement that trigger a similar effect to dopamine. You may consider to look after a pet such as a little dog that you have to get for a run every morning. A loving pet will reduce your need for comfort foods because it provides intimacy and a distraction from craving and to top it off it will also give you a great incentive to get moving in a the best possible way.

Once you have analyzed the actions that contributed to your becoming obese, write it down on a list titled the practice of the nothing and carry this list wherever you go. I recommend to have 10 items on this list because too many things could overwhelm the execution of your practice of the nothing by making it too complex and too little may not be effective enough.

The **practices of the nothing** will probably generate some level of discomfort and unease because you may get hungry and/or miss those foods you have become addicted too. This is an almost

inevitable reaction of your physical body which has adapted to your past dietary regimen and now suffers more or less severe withdrawal symptoms from what it is addicted to. The second part of the **practice of anti-gravity** then is designed to deal exactly with this problem.

The **practice of anti-gravity** takes power off the belief systems that uphold obesity. It does so through neutralizing established gravity of mind with a new opposing belief system which I call **anti-gravity**. All of our actions are in some way or other based on what we consciously or subconsciously belief is the right thing to do. The sum of all these beliefs related to accepting obesity is what constitutes the gravity of mind towards obesity. **The task of the practice of anti-gravity is then to identify what those 'obesity' beliefs are by listening to yourself whenever these beliefs arise and then immediately replace them with the complete opposite anti-gravity belief.**

For example you skip a meal and you are now hungry and your internal dialog goes something like "I feel really bad because I'm hungry, its hurting me". The underlying belief here may be that "eating makes me feel good and not eating is causing pain and/or harm to myself". It's an assumption, that may or may not be right or wrong, but it will influence your decision making to favor eating rather than not eating. This belief should now be neutralized immediately the very moment it arises through adoption of the complete opposite view with something like "I feel really good because I'm hungry because when I'm really hungry I'm on my way to become more healthy". You have to make this statement with conviction (with your willed emotion) out load to yourself and then relax. It's like a kind of self hypnosis and you will probably feel instantly better. You are neutralizing the bad feeling of fasting or being hungry with the positive feeling of becoming healthier and so strengthen your will power at the same time. Every time a negative feeling, thought or emotion comes up into your consciousness instantly neutralize it, consciously and without argument, by adopting the exact opposite. This is a way of efficiently re-wiring your brain. The brain instantly rewires some thousand connections whenever you adopt a singe belief in full consciousness and with conviction and then again every time you repeat this new belief. It is a simple automatic process. Her is another example. Say you decided to support your new dietary regime with an exercise program and you have planned a session of walking. You don't feel good like doing it right now and your internal dialog goes like "I'm just so tired and have no energy because I have not eaten and exercise would make me sick now" The underlying assumption of this belief may be "I can only exercise when I'm filled up with food that gives me energy" This is of course is somewhat absurd, as we know that a person exercises more efficiently with an empty stomach. So the anti-gravity belief in this case could be "Right now, my stomach is empty and because I'm lighter I can run like a gazelle and burn my blubber away". It sometimes only takes a little nudge to get momentum for an action and you will find such anti-gravity belief statements spoken to yourself with conviction is that nudge. You will also find that many times the beliefs and thoughts that crop up when you feel negative are similar and thus require that same response. Keep working at it and write them down on a list called anti-gravity

just like you do with the list of the nothing. Eventually the anti-gravity statements will become instant responses and so become more and more effective. In this way anti-gravity becomes habitual, an effective tool of coping effortlessly with adversity. The method of anti-gravity, when entrenched, make life a breeze and not just for fighting a specific issue such as obesity. Over time, probably in less than a month, your outlook on life will change, and this would be further reinforced once the first successes roll in as a result of your changed habits, in the obesity case it could be loosing the first few kilos of blubber.

You can use the practice of anti-gravity for any issue in your life whether its dealing with overcoming personal behavioral anomalies in your life or any desires you may want to realize. Its like saying 'no' to something that is annoying you and 'yes' to something you badly want.

The fact is, and we must not ever forget it, that our own brain is potentially equally good as any other brain, it all comes down to the wiring of the 100 billion neurons we each have, the wiring which has scientifically shown to be a life long ongoing plastic process, that is, the brain can change itself at any time in your life. It's up to you and you have the power to become your desire.

The wiring of memory and belief is what creates gravity of mind and gravity of mind in turn determines and guides your action and action.

When you think or do something repeatedly, your brain actually rebuilds itself by growing new connections between nerve cells with the input we give it. All of your sensory perception adds connections automatically because your brain doesn't know whether whether your sensory perception is right or wrong. The brain stores it and with every repeat of the same sensory input the connections are wired in and then acted upon. Each repeated statement you feed to your brain either creates new connections between nerve cells or reinforces existing connections. Over time, the connections become more numerous and more established. The new connections hold your new beliefs stronger and stronger to establish gravity of mind for those beliefs and eventually have replaced the old beliefs.

Neuropsychologist Rick Hansen writes: "All mental activity - sights, sounds, thoughts and feelings, conscious and unconscious processes – is based on underlying neural activity. Day after day your mind is building your brain. ...Each one of us has the power to change his or her brain for the better what Jeffrey Schwartz has called 'self-directed neuroplasticity' ... "if you don't make up this power yourself, other forces will shape your brain for you, including pressures at work and home, technology and media, pushy people, the lingering effects of painful past experiences and mother nature herself."

It is the quantity and quality of neuron connections, not the number of neurons that determine

our mental potential and mental performance. Every year the adult brain can loose up to 7 in a 1000 of its neurons, but this can be made up by learning which increases the **density of connections** in the remaining neurons, while **repetition** increases the myelin insulation around the axons of surviving neurons which in turn increases **recall of memories and speed of thinking**. The neuron loss can increase markedly if you drink or do drugs as can a lack of exercise, grief, low mood or pessimism, raised blood pressure, stress and poor diet.

8. LIFE

The triangles of **life**, **consciousness and resonance** are located at the perimeter of the internal hexagon shape of the Tetractys and together form a triad. **Life** has the meaning of the manifestation of **matter** as **animated energy in form of DNA** and is represented by warm colors (red, yellow or orange nodes). **Consciousness** as a function of mind is symbolized by the cool colors (blue, violet, indigo nodes). **Resonance** synonymous with **motion of energy (e-motion)** and is symbolized by the color green.

Classical definition of life:

The current definition is that life or a living organism maintains homeostasis (1), is composed of cells (2), undergoes metabolism (3), can grow (4), adapts to its environment (5), responds to stimuli (6) and reproduces (7)

Life is a characteristic distinguishing physical entity having biological processes such as signaling and self-sustaining processes, sensual perception and metabolism. Forms of life include plants, animals, fungi and bacteria but not viruses.

The mechanism by which life began on earth is still unknown but we theorise on earth it arose 3.8 - 4.1 billion years ago,.

Definition of life in the book of SEN context:

Life is the animated metabolizing and replicating matter of sensory somethings.

Integration of life into the Tetractys

Life is bounded by the numbers 1, 2, and 7 and the side facing the interior of the Tetractys is aligned with the triangle of space both connected to gravity in point 2. There is a strong functional relationship between matter, space and gravity through the atomic structure of protons, neutrons and electrons all with a matter component.

Life in a new 'human something' arises from mitosis, the formation of body cells. We start life as a **single cell organism** in the mothers womb out of the fertilized egg. **In this first single cell every gene on every chromosome is active and available.** Then the cells divide and multiply and form a triad of three rudimentary tissue layers (1) the **endoderm** (develops into glands and viscera), (2) the **mesoderm** (develops into muscles, bones and the circulatory system) and (3) the **ectoderm** (develops into the skin, sense organs and nervous system). In the tectractys the triad is functionally

expressed as **endoderm** by the top triangle **resonance**/emotion, the **mesoderm** as the bottom left triangle by **life matter** and the **ectoderm** as the bottom right triangle by **consciousness/mind**. Some of the genes are then turned off at the stage where the cells differentiate into mature tissues with only one specific set of genes staying switched on in each cell. Symbolically at the birth we come out of point zero and divide into the three corners of the Tetractys. Death or dissolution then is the reverse process. Death is the permanent termination of all vital functions of life processes in an organism or cell. After death, the remains of an organism re-enter the biochemical cycles manifest within the everything and are assimilated into other somethings.

Deoxyribonucleic acid (DNA) is the molecule that carries the genetic instructions used in the growth development, functioning and reproduction of **all known living organism** and many viruses. DNA stores biological information in a double – stranded matter structure. Biological information is replicated as the two strands are separated. DNA is built of amino acids with the key elements being carbon (C), hydrogen (H), oxygen (O), nitrogen (N) and a side strain that can contain other elements. Amazingly, of the 500 naturally occurring amino acids only 20 appear in the genetic code of DNA and are directly encoded by triplet codons. The number twenty features prominently in the Tetractys where the s**um of node numbers of the sides** of the equilateral Tetractys all add up to the number 20 as they also do on all twelve sides of the octahedron the three dimensional diamond manifestation of the tetractys. The structure of the DNA in its coding of the four bases of Adenine, Thymine, Guanine and Cytosine is represented as the four nodes of the bottom line of the Tetractys also symbolic of the classical Pythagorean four elements fire, air, water and earth.

Discussion of life

It is estimated there are one trillion species of life present on earth with only one thousandth of one percent described. 'Home sapiens', the modern humans are only **one** out of the trillion species.

The origin of life is not fully known to science, although there exist many theories with only few clear cut facts to support them. **It is generally agreed that we evolved by common descent from a single simple life form about 3900 million years ago.** All existing forms of life are built out of cells. There is no geological record from 3.6 billion years ago. Originally the earths atmosphere had almost no free oxygen. It gradually changed to what it is today, over a very long time and this process began with **cyano bacteria (blue green algae)**, the first organisms to make free oxygen by photosynthesis. Most organisms today rely on oxygen for their metabolism.

"Homo sapiens (wise man) evolved to anatomically modern humans solely in Africa between 200.000 and 100.000 years ago, with members of one branch leaving Africa by 60.000 years ago and over time replacing their earlier human populations such as Neanderthals and Homo erectus. Our relatives among the hominidae family include chimpanzees, bonobos and gorillas. Earliest

cloths of human ancestors (homo erectus) occurred approximately 500.000 years ago, the earliest use of fire 1.6 million years ago and the earliest use of stone tools by human like apes about 3 million years ago. But it was only just recently about 10.000 years ago where the population of homo sapiens exploded. The world population at the time agriculture emerged about 10.000 BCE was between 1 and 15 million. We grew from 1 billion in 1800 to 7 billion in 2012 in just over 200 years with the last 100 years of a fourfold increase in the population due to hygiene, medical advances, lower mortality rates and increase in agricultural productivity. According to the UN, world population is expected to peak at around 10 billion in 2100. As of August 2016 the world population of humans is an estimated 7.4 billion. At the great famine of 1315-1317 and the black death in 1350 population was 370 million. The median age of humans today is 30.1 years. The total number of humans ever lived is estimated at **107 billion**. Global average life expectancy is 70.5 years as of 2012 (73 for females and 68 for males). The population of the 10 most populous countries is as follows: China 1.38 billion, India 1.33 billion, USA 324 million, Indonesia 261 million, Brazil 206 million, Pakistan 194 million, Nigeria 188 million, Bangladesh 161 million, Russia 146 million and Mexico 129 million. There were about 300.000 aboriginals in Australia when the first European settlers arrived."

"The Toba volcanic super eruption occurred about 75.000 years ago at lake Toba in Indonesia. The theory holds that this event caused a global volcanic winter of 6 - 10 years and the possibility of the human population bottleneck. Toba's erupted mass was enormous and deposited an ash layer of 150 mm over the whole of south Asia. Genetic evidence suggests that **todays humans are descended from a very small population of between 1.000 and 10.000 breeding pairs** that existed near Angola about 70.000 years ago."

It is a scientific fact that the **origin of the human life form evolved from ape like ancestors** and traveling further back our ancestry reaching into the beginning of life as a blue green algae. However despite our best factual knowledge of our ancestry as derived from the analysis of DNA, there are still an estimated three billion of humans that refuse to accept or are simply ignorant of the facts of the process of evolution and rather adhere to the delusional belief of a religious faith based creation myth that postulates that the human was created by god.

Termination of life matter within a something:

Apoptosis (Greek for falling off) is the pre-programmed cell death in multicellular organisms. In the average human adult between 50 to 70 billion cells die **each day** due to apoptosis. In a child between age 8 and 14, approximately 20 to 30 billion cells die each day. A cell initiates intracellular apoptotic behavior by signaling in response to a stress, which then may lead to cell suicide.

Continuance of life through mating:

Our mating instinct coupled with survival instinct and the development of consciousness are the most fundamental motivational forces of a human through most of its life span. These are hardwired into our biophysical makeup and largely controlled by hormonal processes and deep instinctual processes and together with increased food production and improved hygienic living conditions have led to the apparent dominance of our species.

Human sexuality is the capacity of humans to have erotic experiences and responses. The hypothalamus is the most important part of the brain for sexual functioning. The hypothalamus has a relationship with the pituitary gland, the latter secreting hormones the are produced in the hypothalamus and itself. The hormones are oxytocin, cytosine, prolactin, follicle-stimulate hormone. Of these oxytocin is released in both sexes during sexual intercourse when an orgasm is reached and is critical to the thoughts and behaviors required to maintain close relationships.

For most non-human mammals, mating and copulation occur at the point of estrus (the most fertile period of time in the female reproductive cycle). However bonobos, dolphins and chimpanzees like humans are known to engage in sexual intercourse regardless of whether or not the female is in estrus, and also to engage in sex acts with same sex partners. Like in humans this behavior seems to strengthen social bonds and is primarily for pleasure. Note, that this fact seems to suggest that homo sexuality, which is strongly condemned by many faiths as sinful behavior, really is part of our evolution as a social creature and thus natural. Love is a variety of different feelings, states and attitudes and refers to an emotion of strong attraction mainly between opposite sexes, personal attachment and as a virtue of kindness and compassion, the unselfish concern for the good of others.

Studies in neuroscience have shown that for people in love of something, the brain releases a set of chemicals, such as neurotransmitter hormones, dopamine, nor epinephrine and serotin, the same compounds released by amphetamine and stimulates the brains pleasure center. Research has also indicated that this stage lasts from one and a half to three years. Lust and attraction are the first two temporary stages of interpersonal love and they are replaced by the third and long term stage as attachment, the latter being a kind of bonding through commitments such as marriage, children and shared interest. The long term bonding stage has been linked to higher levels of the chemicals oxytocin and vasopressin to a greater degree than short term relationships have.

Sex and religious belief systems:

The **Roman Catholic church** states that sexuality must only occur in the context of marriage between a man and a woman and must not be divorced from the possibility of conception. All forms of sex outside this dogma are considered sinful, such as the use of contraceptives, masturbation and homosexual acts.

In Islam, sexual desire is considered to be a natural urge that should not be suppressed, although the

concept of free sex is not accepted by emphasizing marriage between man and woman with homosexuality strictly forbidden.

Hinduism emphasizes that sex is only appropriate between husband and wife but sexual pleasure is an important duty of marriage.

Sigmund Freud argues that all human beings are capable of becoming either heterosexual or homosexual, neither orientation was assumed to be innate.

Havelock Ellis said homosexuality was inborn and therefore not immoral, not a disease and that many homosexuals made significant contributions to society.

We should consider that people have the right to decide over their own bodies and sexuality and also decide on the number of children they have and when they have them. Sexual activities in general have shown to have health benefits such as improved sense of smell, stress and blood pressure reduction, increased immunity and decreased risk of prostrate cancer. It increases the level of oxytocin, which helps people bond and build trust. Since sex is a deeply ingrained instinctual function, **any kind of suppression** or hampering with its function would very likely create some kind of personality distortion. Bringing new life into the world by having your own offspring is the natural way of evolving and developing your personality from egocentric focus towards empathy and caring. Seeing your children grow up can be extremely rewarding (generating a sense of purpose for your life) and a great source of joy, thereby smoothing out the perils of aging and certain mortality.

On the contrary, the decision of not having offspring is also to be encouraged at this point of time in as it would help to reduce the currently unsustainable world wide population growth. We must find ways to reduce our insatiable appetite for exploiting the worlds natural resources, which has led to serious climate change, deterioration of environmental living conditions and a hundred fold increase in species extinction compared to the natural rate. Putting a lid on population growth would be one of the very few avenues available.

Breathing and metabolism

Breathing is essential for human life. At the beginning of life it began with the photosynthesis of blue green algae and since then has evolved to the oxygen consumption mechanisms in us humans and many other animals. Breathing properly is fundamental to life and to living healthy. Sadly many humans have acquired distorted breathing habits such as **shallow chest breathing** and **over breathing** which makes it difficult to maintain health in life. Proper and efficient breathing vitalizes a human something by providing sufficient oxygen to numerous chemical process within the human body.

Practical application of breathing to increase vitality of life

The science of yoga has evolved the practice of pranayama or breath control and many of its teachers claim that pranayama is capable of extending life span. I have been practicing a daily pranayama routine for about fifteen years and although I do not claim to have any qualification to speak on the topic here are a few points of consideration.

Precaution and dangers of breath control:

From childhood I clearly remember the choking game we played as kids on occasion, an act that intentionally cuts off oxygen to the brain with the goal of inducing temporary loss of consciousness and euphoria. The 'fainting game' leads to the experience of an altered state of consciousness, the experience of gray-out and is an approximation of near death experience and a brief sense of euphoria as a rushing sensation. This effect is similar to what happens to your physiology in deep meditation, moksha, nirvana, samadhi states with the difference that the extreme conditioning of a yogi or meditation master to tolerate carbondioxide poisoning of the brain extends and intensifies the rushing high experience. The mechanism of the choking game are (a) strangulation by providing hands or arm pressure on the internal carotid artery in the neck (it is extremely dangerous and can lead to fatal head trauma) and (b) hyperventilation through forced breathing until distress is felt, followed by a breath hold and subsequent blackout of the brain with dreaming or hallucinations. It is estimated that 10 - 20 % of youth have at least once practiced the choking game. Any activity that deprives the brain of oxygen has the potential to cause moderate to severe brain cell death leading to permanent loss of neurological function, even lifelong mental disability or death. We simply didn't know what we were doing then and I have a feeling a lot of people do neither when they practice breath control or pranayama exercises. The biggest myth amongst many modern yoga teachers and exercise experts such as athletic coaches and personal trainers is that deep breathing is doing you good by getting more oxygen into your body. In fact the exact opposite is true. Deep breathing often takes the form of over breathing or hyperventilation and can be harmful in the long term as it leads to oxygen starvation and bad breathing habits. The ancient yogis never wrote about deep breathing, they only wrote breathing needs to be restrained (breathing less) and the pauses between in and out breath to be extended (breath suspension).

Oxygen is the most important health factor in the human body. **Pranayama practice done the proper way produces a mild stress** so that the **body adapts to new conditions** and functions better as a result. **More breathing doesn't result in more oxygen because only normal slow breathing leads to ideal oxygenation of arterial blood 98-99 %.** Note that hyperventilation reduces brain oxygenation by about 40 %. Hyperventilation induced by deep breathing practices also leads to spontaneous and asynchronous firing of cortical neurons leading to distortions in how we perceive reality. What then is the best method of breathing? One would argue that breathing is regulated unconsciously for most of the time as a very natural automatic process and shouldn't be interfered with at all. However many people have acquired unnatural breathing habits such as chest breathing (over breathing) and this then often creates the underlying cause for some health problems they may have developed. **Chest breathing** is **over breathing** and leads to **reduced oxygenation of the blood** just like **hyperinflation**. The habit of chest breathing is usually acquired through lack of physical activity, postural problems and restrictive clothing.

The best way of breathing is **abdominal breathing** and this can become a consciously acquired habit through breathing exercise training regimes.

My breathing regime is basically centered around the practice of **abdominal breathing** and systematic **breath holds** for both holding in or holding out breaths. I also incorporate breath control in swimming practice, breathing only every five or seven arm strokes and allow my breathing to normalize after every two laps. The goal here is to provide a mild stress in order to condition the efficiency of your lungs.

Breath holding exercises must be very conservative, only going into mild to medium oxygen hunger at any one time. I do not breathe in or out to full lung capacity because we know from research this practice could physically damage the little Alveoli and fine capillary network in the lungs by over pressuring. Even so at sub maximal capacity, when holding breaths in (1:4:2 pattern alternate nostril breathing, 1 part in-breath, 4 parts hold breath in, and 2 parts out-breath), I like to limit my routine to a maximum of 1 minute 30 seconds per breath cycle adding up to 10 breaths over a 15 minute period. When holding breaths out (1:2:6 pattern, 1 part in-breath, 2 parts outbreath and 6 parts hold breath out), the routine for me is 45 seconds per breath cycle at the most which adds up to 20 breaths over a 15 minute period. Never go beyond medium oxygen hunger which I define as requiring three deep breaths for recovery immediately after the breath hold, after which breathing should have returned to normal indicating sufficient ventilation and clearance of carbondioxide. Breath cycles with holding breaths out are shorter compared to holding breaths in because carbondioxide accumulates much faster this way. Three other exercises in my routine are slow (60 bellows per minute) Khabalabati or bellow breathing, the humming breath (in yoga called brahmara or bee breath) and AUM mantra on the out breath without any breath holding. It has shown that the vibration of humming generates nitric oxide (a nerve transmitter) accumulation in the nose which then transports to lungs and blood on the following in breath. For the first few years my breathing practice tended to feel a bit of a chore but I now I enjoy it every day first thing in the morning in conjunction with half an hour of inverted yoga postures. It is best done on empty stomach producing a nice balance of energy to set the tone for the rest of the day.

Any routine needs to be tailored to the capabilities of the individual. The capacity to breathe varies

greatly between individuals and it is impossible to recommend a detailed practice to anyone without some assessment of the individual. Many individuals would be unable to do it consistently and may find this kind of practice very boring. You really need to develop a habit first, then the habit will sustain itself before it becomes enjoyable and leading to a significant increase of vitality of life.

The capacity to breathe also depends on many other factors such as your breathing habits, age, lung capacity,environmental conditions (temperature, humidity, air pollution, health status, medical conditions if any and your desire and capacity to maintain a discipline. A high degree of fitness is not necessarily a sign for a high capacity to breathe. To sum up, the purpose of a daily breathing routine is to develop a habit of **abdominal breathing** and to improve **lung efficiency**.

9. CONSCIOUSNESS

The classical definition of consciousness:

Consciousness is the state or quality of awareness, or, of being aware of an external object or something within oneself.

It is a continuum of states, ranging from full alertness and comprehension, through disorientation, delirium, loss of meaningful communication and finally loss of movement in response to stimuli.

The English word 'consciousness' derived from the Latin word 'conscious' (con-'together' and scio 'to know') but the Latin word did not have the same meaning as our word as it meant 'knowing with', in other words 'having common knowledge with another'. The English version has the figurative meaning of knowing with oneself or knowing that one knows.

Definition of consciousness in the book of SEN context:

Consciousness is awareness through sensory perception of the outside and inside of a something.

A distinction is to be made between consciousness in somethings capable of sensory perception and inanimate somethings. In inanimate somethings there is little or no sensory perception although they also experience. For example a rock heats up and changes volume as a reaction to collision with infrared electromagnetic radiation. One could argue the rock is experiencing infrared heat in the wider sense of 'experience' as undergoing a process. Since the rock has no nervous strata there is no consciousness or awareness of such an experience. Human skin exposed to infrared radiation also heats up just like the rock, but in addition through sensory perception may become aware of when, how and why the heating is happening and whether it feels painful or pleasurable. Wherever there is consciousness there is also experience even if it is ultimately reduced to just a change of electro-chemical charges within nervous strata that we become aware of it. When we are asleep we are not aware of the changes within and outside of us thus we are not conscious.

Integration of consciousness into the Tetractys

The triangle of consciousness in the Tetractys is bounded by numbers 8,9 and 3 at the lower right corner and its side joins the triangle of 'time'. Think of consciousness arising as a reflection of the change of somethings in time and transforming upward into electromagnetic energy manifestations withing nervous strata.

Discussion of consciousness

There is little agreement amongst philosophers on the question how mental experiences arise from a physical basis. Some consider it is wrong to assume a distinction between mind and body.

In the book of SEN a thought is considered a 'something' just like a neuron nerve cell is a 'something' or an electron or an atom or anything that can be known through sensory perception of the 'what is', the secular world. The Tetractys as a mental construct knows only one realm of being or reality of temporal existence of which 'matter', 'resonance' and 'consciousness' and all the other elements of the Tetractys are all but aspects under consideration.

Consciousness of sentient beings:

The Cambridge declaration on consciousness signed by eminent scientists in the presence of Stephen Hawking states: 'Convergent evidence indicates that non-human animals[..] including all mammals and birds , and other creatures,[...] have the necessary neural substrates of consciousness, and the capacity to exhibit intentional behaviors.'

It means animals are conscious, have emotions and feel pain, it means that an animals life has as much value as a human animal life from an independent neutral moralistic viewpoint.

The Gordon Gallop mirror test for self-awareness shows that humans (older than 18 months), other great apes, bottle nose dolphins, killer whales, pigeons, magpies and elephants have all been observed to pass the test. We are all alike self-aware creatures to all but different degrees.

If one were to say humans are more intelligent or more clever than the other animals then one would also have to ask the question 'intelligence for what'. For example humans cannot fly by themselves that is they lack the intelligence to fly the way birds do. Indeed compared to most other animals we are very clumsy and slow. Our strength is the development of the frontal cortex promoted by the invention and development of tools. One criteria often used to assess intelligence is the ratio between brain size and body weight. On that measure humans are not very highly placed about at the same level as rats while the same ratio in birds is as much as three times as high compared to humans depending on species.

Consciousness and the brain:

There are some brain states in which consciousness seem to be absent including dreamless sleep, coma and death as well as anesthesia. In the context of the book of SEN those states are referred to as being in the nothing. Science also knows of a variety of distortions of consciousness, such as altered states produced by drugs or brain damage, sleep and dreaming.

In neuroscience a great deal of effort has gone into investigations how the perceived world of conscious awareness is constructed inside the brain and it is thought to involve two primary mechanisms (1) hierarchical processing of sensory inputs and (2) memory. Signals arising from sensory organs are transmitted to the brain and then processed by extracting multiple types of raw information from the raw input. For example in the visual system, sensory signals from the eye are transmitted to the thalamus and then to the primary visual cortex, inside the cerebral cortex, they are sent to areas that extract features such as three dimensional structure, shape, color and motion. Memory then comes into play by comparing the selected input to previous experience and by integrating the input into your personal virtual model of the world.

Consciousness is always and essentially consciousness of a 'something', whether this something is a thing, a person, an image of objects, a thought or so on. In addition to always be consciousness of a something, consciousness can be conscious of itself, self-consciousness.

Consciousness and brain wave activity:

Electroencephalograms (EEG) show that the brain has electromagnetic fields currents in the head and the frequency of those brainwaves has been crudely correlated with states of consciousness. Delta waves are 0.5 to 3 cycles per second associated with deep sleep (in the book of SEN context as being close to the nothing, the black state), Theta waves are 4 - 8 cycles per second associated with trance (being close to the nothing in the gray state or white state), drowsiness or light sleep, Alpha waves are 8 - 14 cycles per second and associated with relaxed wakefulness or 'thinking type meditation', Beta waves are 14 - 35 cycles per second associated with all the modulations of everyday consciousness. There is still no consensus where the EEG voltages come from. The voltage measured between the head and other parts of the body becomes more negative during physical activity and declines in sleep and recovers to positive under anesthesia. It is thought that Alpha waves as neural oscillations in the frequency range of 7.5 - 12.5 Hz, arise from synchronized and coherent (in phase) electrical activity of thalamic pacemaker cells in humans. They are detected by EEG and MEG and predominately originate from the occipital lobe during wakeful relaxation with closed eyes.

Self awareness as self concept:

In psychology, one's self concept is defined as a collection of beliefs about oneself (for example I am a fast swimmer), that includes elements such as school performance, social roles, sexuality and racial identity. Self concept differs from self esteem (I feel good about being a fast swimmer). The self concept includes past, present and future selves where future selves represent beliefs of what they might or could like to become or what they are afraid of becoming. Every one strives to reach an ideal self. Healthy people actively move away from roles created by other's expectations and

instead look within themselves for validation. Neurotic people have self concepts that do not match their experiences. They are afraid to accept their own experiences as valid, so they distort them either to protect themselves or to win approval from others. Selfishness is the condition of putting one's own interests before those of others.

Consider a healthy self concept as being a concept agreeable with the 'what is'. Here the self concept is anchored in truth of the 'what is' or what can be said to exist, while false concepts are either anchored in distorted interpretations of the 'what is' or gravitating towards irrational wishful thinking.

Consciousness and religious beliefs:

Religions throughout history influenced minds through fabricated elaborate belief systems on the nature of human consciousness in conjunction with constructs of the world of the supernatural, such as god, afterlife and soul. These doctrines have often dominated the history of human civilization and were rarely questioned until the arrival of scientific method of reasoning, which discussed the theoretical basis of many religious doctrines and in almost all cases proofing them as irrational and invalid. Despite the age of enlightenment through scientific thought religious institutions have somehow survived and some are even reviving during times of crisis when humankind tends to get anxious and frightened. Often anxiety in the secular is created by the fear of our mortality in the face of the unknowable coupled with an absence of a plausible purpose of life, the latter which then religions are opportunistically offering often in form God worship and consequent promised reward of a wonderful afterlife or reincarnation.

Definition of religion:

Religion is a cultural system of behaviors and practices, world views, sacred texts, holy places, ethics and societal organization that relate humanity to an order of existence. The word religion is mainly a construct of the modern western world and in the old texts and other parts of the world religions is understood as the 'law'.

In many religions, philosophical and mythological traditions, the soul is the incorporeal and immortal essence of a human being a kind of super consciousness or "soul" anima (Latin for animal).

Buddhism:

"Buddhism teaches that all things are in constant flux: all is changing and no permanent state exists by itself. Thus a human being has no permanent self or soul. I or me is not a fixed thing, they are simply convenient terms to reference an ever changing entity. In Buddhist view, conscious mental states simply arise and perish with no 'thinker' behind them. However, when the body dies, Buddhists believe the incorporeal mental processes continue and are reborn in a new reincarnated body (note: there is no explanation of exactly how this transfer can possibly happen). Buddhism is the worlds 4th largest religion with over 500 million followers or 7 % of world population."

Christianity:

"According to common Christian eschatology, when people die, their souls will be judged by God and determined to go to heaven or hell (and suffer eternal damnation). There are no clear theories on the origin of individual souls in Christianity, The definition of god in classical theism is characterized as a god as the metaphysically ultimate being (the first, timeless, absolutely simple, and sovereign being, who is devoid of any anthropomorphic qualities)" Christians belief that violation of their doctrine of commandments (a set of simplistic how to live instructions) are grave sins and may get you to hell at your judgment day.

Hinduism:

"Hinduism is a religion or a way of life and is considered the oldest religion of the world and referred to as the eternal law beyond human origin."

"The three major schools of Hindu philosophy agree in the existence of jiva (soul), the individual self as related to Brahman (self/god). The Jiva transmigrates through cycles of birth and death because of its ignorance of its true nature, The spiritual path consist of self-realization a process in which one acquires the knowledge of the self and then returns to the source which is Brahman(god).

Islam:

"Islam is the religion articulated by the Quran, a text to be considered by its adherents to be the verbatim word of god (Allah). It is the worlds second largest religion and the fastest growing major religion in the world with over 1.7 billion followers or 23 % of world population. Islam upholds that god is one and is incomparable and that the purpose of existence is to worship god. Moslems belief the creation of everything in the universe was brought into being by gods sheer command "be and so it is" and the purpose of existence is to worship god."

"Islam teaches that the soul is immortal and eternal and that what a person does is recorded and will be judged at the final court of God. They will either go to heaven or hell depending on whether or not they did well in the test that was given to them by Allah (god)."

"Muslims also belief in angels as messengers of light with wings and in total obedience to god and that the verses of the quran were revealed to Muhammad by god through the archangel Gabriel on many occasions. Muslims also belief that on the day of Resurrection, all of mankind will be judged on their good and bad deeds and either consigned to paradise or hell." It seems if you disbelief in Allah, you'll likely go to hell, unless you repent and god in this case may forgive you.

Judaism:

"Kabbalah is an esoteric method and school of thought originating in Judaism. It is a set of esoteric teachings to explain the relationship between 'infinity' and the mortal 'finite' universe (gods creation) There are two aspect to god, (a)god in essence, absolutely transcendent, unknowable, limitless (comparable of the 'nothing' in the book of SEN) and (b) god in manifestation, the revealed persona of god through which he creates and sustains and relates to mankind (the equivalent of the 'world of somethings' in the book of SEN) The sephirot are the 10 emanations (the equivalent of the 10 chapters and tectractys of the book of SEN) and attributes to god in which he continually sustains the universe in existence (the equivalent of the everything in the book of SEN)."

On the surface there appears to be some similarities between the Judaic Kabbalah and the book of SEN, the big difference being there is no concept of God in the book of SEN since God cannot be the nothing by definition nor the something or the everything.

Taoism:

"According to Taoism, every person has two types of soul called hun and po, which are respectively Yang and Yin. Taoism beliefs in 10 souls (again the sacred ten), sanhunqipo "three hun and seven po" The po is linked to the dead body and the grave, whereas the hun is linked to the ancestral tablet."

Atheism:

"In the broadest sense, atheism is the absence of belief in the existence of deities. In a narrow sense atheism is a position, that **there are no deities**. The word atheism first was first used during the French Revolution and advocates the supremacy of human reason. Atheists hold that the burden of proof of the existence of god, lies with the theists to provide a rationale for their claim."

"Atheistic existentialism refers to the exclusion of any transcendental, metaphorical or religious beliefs and confronts death anxiety without appealing to a hope of somehow being saved by a god, and without any appeal to alternate forms of supernatural salvation such as reincarnation."

Agnosticism:

"Agnosticism, is not a religion but is belief system that is related to religion in that it has the view

that truth values of certain claims – especially metaphysical and religious claims, such as whether god, the divine, or the supernatural exist – are unknown and perhaps unknowable. It is a view that human reason is incapable of providing sufficient rational grounds to justify either the belief that God exists or the belief that God does not exist.

Thus agnosticism is the essence of science. It simply means that man shall not say he knows or beliefs if he has no scientific ground for it. Do not pretend that conclusions are certain which are not demonstrated or demonstrable."

The agnostic view stance above is similar to the book of SEN argument that the God concept is not reasonable because it is outside the range of definitions of the something, everything and nothing that make up our known and unknowable world.

"Agnostics typically say I cannot know whether a deity exists or not and neither can you, but maybe one day, there is evidence, we can find something out. We can be as honest as we are ignorant, if we are, when asked what is beyond the horizon of the known, we must say that we do not know. This of course implies that all of religion is based on dishonesty. A 2010 survey found that agnostics made up 9.6 % of the worlds population. According to the 2011 ABS 22 % of Australians have no religion."

"A 2010 survey found that agnostics make up about 10 % of the world population. USA 14 %
Germany 25 % France 32 %
16 % of the world population have no religious affiliation
22 % of Australians have no religion
65 % of Japanese are atheists
81 % of Vietnamese are agnostics"

Humanism:

"Humanism is a democratic and ethical life stance, which affirms that human beings have the right and responsibility to give meaning and shape to their own life. It stands for the building of a more humane society through an ethic base on human and other natural values in the spirit of reason and free inquiry through human capabilities. It doesn't require a belief in god and it does not accept supernatural views of reality.

Skepticism:

"Skepticism is the questioning attitude or doubt towards putative knowledge or belief. Scientific skepticism discards beliefs to things outside perceivable observation and thus outside the realm of systematic, empirical testability."

Miscellaneous views of the great thinkers on religion and arguments against religion:

Philosopher Ludwig Feuerbach and psychoanalyst **Sigmund Freud** have argued that God and other religious beliefs are human inventions, created to fulfill various psychological and emotional wants and needs. This is also the view of many Buddhists.

According to **Mikhail Bakunin** the idea of god implies the abdication of human reason and justice, it is the most decisive negation of human liberty and necessarily end in the enslavement of mankind.

Sociologist **Phil Zuckerman** says atheists are less nationalistic, prejudiced, anti-Semitic, racist, dogmatic, ethnocentric, close minded and authoritarian and in the US states with the highest percentage of atheist, the murder rate is lower than average. In the most religious states the murder rate is higher than average.

The 19th century German political theorist and Sociologist **Karl Marx** called religion "the sigh of the oppressed creative, the heart of a heartless world, and the soul of soulless conditions. It is the opium of the people"

Lenin said that every religious idea and every idea of god is unutterable vileness of the most dangerous kind.

Critias (Greek) viewed religion as human invention to frighten people into following moral order.

Arab scholar **Al-Maarri** (973-1058) thought that humans were of two sorts; those with brains, but no religion and those with religion but no brains.

Nietzsche wrote 'a god who is all-knowing and all-powerful and who does not even make sure his creatures understand his intentions – could that be a god of goodness?'

Karl Marx and Friedrich Engels argued that the belief in god and religion are social functions, used by those in power to oppress the working class. Marx argued that the ruling class invented and supported religion because it was in their interest to instill in the masses the religious conviction that their current suffering will lead to eventual happiness. Therefore they will not attempt to understand and overcome the real source of their suffering. Marx viewed the Christian doctrine of original sin as being deeply anti-social in character.

Richard Dawkins argues that religious belief often involves delusional behavior.

Sam Harris links religion to illness

Vilayanur S Ramachandran says its possible that many religious leaders had temporal lobe seizures and this predisposed them to having visions and mystical experiences. It has been demonstrated that religious experiences along with near death experiences and ghost sightings can be artificially induced by stimulation of the temporal lobes of the brain with magnetic fields. Recent brain imaging of devotes engaging in prayer precisely identified specific spots in the brain that are activated. Serotenergic activity in the brain generates a sense of cosmic unity and religious ecstasy and can be stimulated with drugs (psilocybin from magic mushrooms) and certain physical rituals. There is scientific evidence to suggest that temporal lobe epilepsy may be linked to a variety of spiritual or other experiences such as spiritual possession, originating from altered electrical activity in the brain.

Stephen Hawking states that it is reasonable to ask who or what created the universe, but if the answer is God, the question has merely deflected to that who created God.

Other inconsistencies inherent to religion:

"The argument from **inconsistent revelations** asserts that it is unlikely that God exists because different religions have produced equally different conflicting and mutually exclusive revelations, but in the end there can only be one truth. In the face of it the judgment ought to be suspended and reversed until evidence arises. "

"The **problem of hell** is the idea that eternal damnation for actions committed in a finite existence contradicts gods omni benevolence and also his omnipresence"

"The **problem of evil** refers to the question of how to reconcile the existence of evil with an omni benevolent, omniscient and omnipotent god. Any attempt to justify the presence of evil with the presence of God does so at the cost of nullifying morality. If evil is necessary to secure greater good as is argued by the theodicies then it appears we human have no duty to prevent it. Even worse, any action can be rationalized as if one succeeds in performing it and it must be for the greater good."

Religious **reliance on divine authority** has led to authoritarianism and dogmatism demonstrated by acts such as the crusades, inquisitions, witch trials and terrorist attacks.

Link between pathology and religious experiences:

In neuroscience the evidence from brain imaging indicates that all processes of the mind have physical correlates in brain function and a lot of research is underway to establish the causal links, Quantum physicists have concluded that the soul concept has no basis from quantum physics and

there is no evidence whatsoever of spirit particles or spirit forces that interact with regular atoms. No attempts of parapsychologists to establish by scientific experiment, whether a soul separate from the brain exists, have succeeded.

The term spiritual energy, chi, prana, life force and vital energy is used in various esoteric forms of spirituality and alternative medicine such as Acupuncture, Reiki, Shiatsu etc and in concept closely linked to the concepts of soul. To date there is absolutely no scientific evidence for the existence of such energies. All we know to exist is electromagnetic and gravitational energy at the human scale and that chi, prana, life force and so forth are only other words for forms or manifestations of electromagnetic energies.

"Epileptic patients have described epileptic seizures which parallel the symptoms of kundalini experiences and Kundalini awakening and may be viewed as an acute psychotic episode by psychiatrics, as the biological changes of increased P300 amplitudes that occur with certain yogi practices may lead to acute psychosis. Correlates between mystical experiences and neurological activity have been established pointing to the **temporal lobe** as the main focus for those experiences but also to the parietal lobe. The temporal lobe generates the feelings of I and is involved in the change of personality that may result from experiences."

"We know now that **epilepsy and religion** may be linked and some religious figures may have had **temporal lobe epilepsy**. The pathology of this type of brain damage is however only one of many possible causal mechanism for mystical experience. The feeling of certainty during mystical experience may be caused by a dysfunction of the anterior insula, a part of the brain which is involved with self reflection. Scanning of brain flow patterns revealed a sharply reduced activity in the orientation area in the top rear section of the brain, reflecting blockage of inflow of sensory information and this results in the perceived lack of physical boundaries."

"Near death experience (NDA) encompass sensations such as detachment from body, feeling of levitation, total serenity, security, warmth, the experience of absolute dissolution, the presence of a light, and a tunnel experience of entering darkness. Neuroscience considers near death experiences to be a hallucinatory state cause by physiological and psychological factors."

Lakhmir Chawla argued the NDE experiences are caused by a surge of electrical activity as the brains runs out of oxygen before death. More recent research in 2010 puts NDE down to a **high level of carbon dioxide in the blood** altering the chemical balance of the brain and tricking it into seeing things. NDE subjects all have increased activity in the left temporal lobe which when stimulated is known to induce hallucination, out of body experiences and memory flashbacks.

"Parapsychology, the field of study concerned with the investigation of psychic phenomena has been unable to provide convincing evidence for the existence of any psychic phenomena after more than a century of research. The soul concept, life force concept and the reincarnation belief are all based on belief and assumptions that are inconsistent with modern science. **The overwhelming scientific consensus is that there is insufficient evidence to support the existence of such phenomena as these would all violate well established laws of physics.** Human brains like all of matter is made of quarks and leptons, the subatomic particles which interact through the four known universal forces which are the strong and weak force, electromagnetic force and gravitational force. Scientists concluded there is no possible physical mechanism for psycho-kinesis and it is in complete contradiction to established science, and any claim for such a psychic force is absurd."

Consciousness and religion in context of the book of SEN:

The fear of the unknown and knowledge of certain death creates an existential threat to our ego that makes us vulnerable to readily accept the promise of afterlife or the idea that we have somehow a soul that is able to survive and end up in hell or heaven or alternatively re-incarnate into a new life. The **founders of religions invented the story of god and afterlife**, by playing on this deeply ingrained fear of individual oblivion and perhaps as a way to control human minds for material or social gains. Their stories promise immortality of some sort and their collection of delusional explanations are quite comical if not insane to a skeptical thinking mind.

The knowledge from direct verifiable experience of the world of somethings as embedded in the 'what is' is sufficient to explain everything we need to know about reality and to live a purposefully life. It is not necessary to introduce the supernatural (God). Absence of evidence is evidence of absence when evidence is needed. Absence or non-existence is defined as the 'nothing' which we know is beyond comprehension because we simply will never capture the extent of the 'eternal' and 'infinite' within our minds other than through abstract mathematical conceptualization.

I have never ever experienced any psychic or spiritual phenomena from within myself or in others. The claims of existence of such phenomena are highly unlikely and together with all untested religious beliefs should be put into the basket of delusional fantasies, deliberate fabrications, fraudulent claims and the **incomprehensible unknown, the 'nothing'**.

Our religions, political systems and cultural approaches some established for over 2000 years or longer have failed to get us out of our current predicament, the threat of extinction through climate change and pollution. Einstein once said something or similar. 'we are stuck because we cannot solve a problem with the tools that got us into a problem in the first place'. The book SEN points toward the need for **fundamental change** of attitude towards a deeper commitment to our duty to nurture the web of life simply because we are the web of life. This change will come because it must in order for life to persevere. The change will probably show up in the resonance of the emphatic heart of an increasing number of people leading us from the prevailing concern to one self as a separate something or group of somethings to one for a something as a part of the everything.

The change will perhaps come through the evolution of self-realization as spontaneous and/or manmade mutation as through genetic engineering.

Consciousness is the talent of life forms to focus awareness on change in the world of somethings in order to enhance their ability to survive. We don't need religion to explain the unknowable. What we need is to become better aware of sensory perception and apply human reasoning and deductive powers to ethical behavior for the good of the web of life which we resonate with and are dependent on. We have been created by the web of life and we return to it. Indeed each one of us **is** the web of life and it is reasonable to think that **all of our effort should be directed towards the health of the web of life**, our origin and part of who we are within the 'what is'.

Practical application of consciousness (forgetting)

The process of brain re-wiring has been outlined in the chapter 'gravity' as the method of antigravity. The practice of 'forgetting' also has been touched on there as a complementary method to further the 'nothing of obesity' by taking out faulty and delusional belief systems. While you may have a democratic freedom to persist with adhering to such beliefs, the freedom extends only to the extent that your beliefs do not turn into actions that interfere with the freedom and health of others. For example the assumption that climate change is a hoax may support your belief to allow you to keep polluting the air by the excessive and unnecessary burning of fossil fuels. Consider that every ton of carbon you burn hastens climate change and increases air pollution for everyone on the planet. The ten richest percent of world population now create 50 % of the carbon footprint while the world poorest ten percent of population create 1 % of the human made carbon footprint. We all breathe the same air and we now know that millions are dying from air pollution in many large cities of the world especially in Asia. Clearly there is a case to curtail the democratic right to pollute because of the harm it does. Another example is the election of persons with known strong religious faith to public office. There is no justification to empower persons with delusional views such as that all sinners and deniers of god must be punished to roast in hell. Such and related views compromise the reality of the 'what is' and often increase the probability of abuse of power as for example happened with the scourge of pedophilia by catholic priesthood, Jihad terrorism and the changing our freedoms through the introduction of new restrictive pieces of legislation curtailing press freedom the latter that makes it easier for authorities to control our lives under the pretend pretext of national security.

We all get brainwashed in our childhood through our culture whether we like it or not. After all we are what we were made to be by others throughout our childhood. If you are lucky enough to see glimpses of the truth of the 'what is' despite impairment by a fog irrational beliefs then you are in a position to rid yourself of mind garbage. I'm not suggesting to take up my beliefs or that of others. The decision of what to weed out and what to plant in your mind garden is entirely up to you. You alone have to figure it out, not your parents, your friends, your teachers, priests, political leaders or

anybody else. Consider what you are reading here as written by the web of life for the web of life as a helping aid to provide you with mind changing tools at the premise that **all of truth** rests in the 'what is'.

The process to get rid of erroneous beliefs is through the natural process of forgetting. Forgetting happens when the empowerment of beliefs into memory stops. The empowerment ceases precisely when you recognize a belief as faulty and thus weaken it within your memory until it dies. To recognize the belief as faulty requires you to willingly look into the evidence that denies its validity. When enough evidence has accumulated you will experience disillusionment. This stage manifests as a very deep feeling of disappointment turning gradually into a new found inner conviction to let go, get on with life and accept the 'what is'.

The faulty belief becomes then like a civilization that has collapsed because something simply was fatally wrong with it. The collapse is painful but offers the opportunity to rebuild or be reborn. Take NAZI Germany for example. It collapsed because something was terribly wrong with, then after the war they rebuilt and today the new Germany has seemingly transformed into a more ethically advanced country. Losing the war created the disillusionment that allowed them to simply replace the erroneous belief of the belief of a superiority of race with a more benign system of democracy and a sense of duty to heal and repair.

Another example is our behavior regarding the causes of climate change. The faulty belief here is an assumption of unlimited economic growth and population expansion fueled by the God given right to unrestricted exploitation of natural resources. However the consequences of the reality of a changing climate or the 'what is' now challenges this faulty assumption. We find we can no longer wiggle our way out of the problems arising from economic growth and now face an escalation of climate change that will turn into the threat of a major extinction event. In my view in order to survive we need to drastically replace the faulty belief of limitless economic expansion with a philosophy of economic shrinkage, population reduction and climate restoration. Our purpose is to nurture the web of life rather than to exploit it. Of course if we manage to destroy the web of life it will be the new reality,it will be the new 'what is' and in this case the truth will be that as an animal species we had a fatal flaw and thus deserved extinction.

10. RESONANCE

Simply put resonance is the state or quality of **resounding** or **re-echoing** vibrations. At the level of animated self conscious beings, resonance is also considered as **empathy** as a form of resounding between two sentient somethings.

Classical definition of empathy:

Empathy is the capacity to understand or feel what another being (human or non-human animal) is experiencing from within the other beings frame of reference, such as the capacity to place oneself into another's position.

The word empathy is derived from the ancient Greek 'empatheia' meaning physical affection or passion and pathos 'passion or suffering'. Empathy as the ability to share another somethings emotions is distinct from compassion (emotions we feel when others are in need) and sympathy (feeling of understanding for someone in need) and also pity (feeling that another is in trouble and needs help).

Definition of resonance in the book of SEN context:

Resonance is oneness with the 'what is' to the extent of sensory perception and manifesting as experiencing the state of being of another something(s) integral to the web of life.

Integration of resonance into the Tetractys

Resonance is the apex of the Tetractys bounded by numbers 4, 6 and 5 and arises from the nothing below and is being linked through gravity and electromagnetic energy at its lower nodes. Resonance as empathy is also seen as a kind of emotional and intuitive knowing that cannot readily be explained. In its wider meaning as resonance between material somethings it refers to a vibrational connection through a material medium such as light, air, earth or water. At the human to human level consider the possibility of the medium to be the bio-electromagnetic field of the heart resounding with the field of another.

Discussion of resonance and empathy:

Empathy or resonance is not love or compassion as those are functions that can also be actions of the ego and/or mind in response to the feeling of empathy and resonance. For example our belief system may dictate an act of compassion because we may think we accumulate good karma for our own benefit (egotistical motivation). Empathy can move a person to be more altruistic (a behavior

that is aimed at benefiting another being). The ability to feel oneself as another person is probably innate and may be achieved unconsciously yet it can be trained and achieved by a focused attitude of caring for the web of life through the resonance of beliefs and desires with the bodily perception of beliefs or desires of other.

Science argues that the human capacity to recognize the bodily feelings of another is not imagined but is related to ones **imitative** capacities through the so called **mirror neurons** in the brain and manifests as an inborn skill to associate with the body expressions one perceives in another with the proprioceptive feelings and producing those corresponding movements or expressions oneself.

Females are naturally more empathic than males as woman are better at recognizing facial effects, expression processing and emotions in general, while man are better at recognizing anger, aggression and threatening cues. Throughout prehistory females nurtured and were the primary caretakers of children, so this might have led to a more evolved neurological adaptation for woman to be more aware and responsive to non-verbal expressions.

Empathy's influence extends to emotions, it correlates with an increased positive state and likeness to aid others. Measures of empathy show that mirror neurons are activated during **arousal of sympathetic responses** and prolonged activation shows increases in the probability to help others. The fundamental behavior of empathy is generally first displayed in children aged two and even some rudiments at year one. Sometimes toddlers will comfort others or show concern for them at as early as age two. **It was found that in order to develop these traits, it is essential to expose the child to face-to-face interactions and opportunities.** Children between the ages of 7 and 12 years appear to be naturally inclined to feel empathy for others in pain. Moral motivation stems from a basis of empathic response.

Empathy is an **evolutionary development** and found in other species such as dolphins saving humans from drowning or shark attacks. Bonnobo chimpanzees are the most empathetic of all the primates but even rodents have shown empathy for cage mates in pain.

Egoism/egotism and empathy:

Egoism/egotism negates or overrides our natural inborn power of empathy by changing the emphasis of sensory perception through empathy by resonance to the internal egotistical perception of a tendency to maintain and embrace favorable views of oneself and as being disconnected to the web of life. As such it features an inflated opinion of ones personal features and importance in relation to everybody else. Egotism is derived from the Greek and later Latin 'ego' meaning 'self' or 'I', and 'ism' is used to denote a system or belief. Closely related to an egocentric love for ones imagined self or to narcissism, egotists have a strong tendency to talk about themselves in a self promoting fashion and they may well be arrogant and boastful with a grandiose sense of their own

importance.

During growing up (wiring of the brain) normal development allows a gradual reduction of egotism to a more realistic view of ones own importance – a lessening of the egotistical tendencies. The ego is still there, but its taking a more limited place among all the other egos. If the adjustment is less adequate it may develop into defensive egotism which serves to compensate the underlying concept of self and never allowing a sense of humility amongst others. We know that it is normal for an infant to have an inflated sense of egotism. Defense mechanisms of the ego are: denial, displacement, fantasy, compensation, projection, rationalization, regression, repression and sublimation and they are activated when our desires conflict with the truth of 'what is'.

The sensitivity of heart space and empathy:

Consider that the heart and then the nervous system are the first things to form in an human embryo. By 10 weeks the heart is completely developed. **The electromagnetic force (EMF) of the heart can be measured up to five meters from the body and has found to be sensitive and responsive to the vibratory condition of the environment.** The field expands with the experience of strong emotions often coupled with significant personality changes or loss of relations (any loss of a something we have attached to such as the death of a companion pet or your wallet for some), a field expansion capable of breaking long time blockages and emotional encrustations (withholding of love). Those field expansions can lead to very strong parasympathetic reactions and are usually felt as a weakness to the point where you strongly look for ways to ground yourself. For example we feel the need to sit down when brought the news of the death of a loved one. During heart expansion events the blood pressure falls as blood vessels and heart dilate.

Consider the term 'heart space' in a conceptual way to describe the subjective location from where our emotions and empathy seem to emanate. It may have a physical basis such as the electromagnetic sensitivities of the physical heart and nervous system around the heart, thymus gland and heart.

When 'heart space' is open the flow of empathy by resonance can get to work. Empathy may very well be the emotional heart's or 'heart space' inborn ability to connect with the world through the resounding of emotional vibrations. This open feeling of expansion in your heart area (what a yogi would call the heart chakra or 'anahata chakra') is associated with balance, calmness and serenity and with the ability or power to make decisions in disregard of gravity of mind (it may override our belief systems in our brain centered mind). In 'heart space' one makes decisions (follow ones heart) based on seemingly higher faculties ignoring the unfulfilled emotions and desires of lower nature (our ego) and these decisions are commonly associated with love and compassion, charity to others and healing. This kind of power seems to be centered in the heart but why we cannot explain as yet. The ancient Egyptians had a long tradition to claim the heart to be the center of the human mind and

soul.

Since the brain is a holographic copy of the body any sensation felt in the heart may actually occur in the brain. It doesn't really matter because what you physically feel and where you perceive it to be felt is indeed your truth or the 'what is'.

If heart space is under-active or blocked one may feel of lacking something and being frustrated, one may feel unloved or unappreciated, and this will resonate outwards and perceived as confirming those beliefs in the persons around you. You may find it difficult to open up to others and may have a resistance to let anyone come close, by keeping distanced particularly from those that want to get close to you..

The location of heart space is closely linked with the thymus within the endocrine system. The thymus is a specialized primary lymphoid organ of the immune system, to mature T cells, that are critical to fight foreign invaders such as cancers. Malfunction of the immune system can lead to hypersensitivity or allergy, auto immune disease or immunodeficiency. The word 'thymus' comes from the Greek 'thumos' meaning anger or heart, soul, desire, life possibly because of its location in the chest, near where emotions are subjectively felt.

A strong balanced 'heart space' enables one to live freely and openly from a place of compassion while a blocked 'heart space' manifests as a lack of love and compassion. The causes are usually early childhood experiences of one or more of the following: shaming, authoritarianism, domination of will, physical abuse, fear of punishment, age inappropriate experiences and inherited shame from parents. Somewhere along the line, there has been a disruption in attitude and understanding of love when you were very little. After growing up in your teenage years and adulthood you then may be gaining your love in the hopes of gaining recognition to boost the damaged self esteem. You may consequently turn into a possessive and mistrustful person who lacks much compassion. Over time such experiences will be fossilized into a gravity of mind, a reason making it difficult to change position later in life. If the heart space is completely blocked you become literally 'heartless' and quite 'icy' in how you receive yourself and others and this would turn into bitterness and spite in the late years of life.

A good way to heal or open a blocked or under active heart space is to follow a vegan diet and have contact and interaction with wildlife in nature or with pets at home. Pets have an uncanny ability for emotional rehabilitation of humans when they love you unconditionally. You may not let any other human get close to you because of a perceived treat to your distorted perception of self esteem but a pet animal cuts right through your virtual defensive wall. A well treated pets natural emotional vibrations of happiness and natural ways of behaving will balance out any of your own negativity and soften your distortions. The mechanism for that may have to do with the resonance or resounding between the electromagnetic fields of the pet and its owner. Even if the pet is unwell

say because of sickness it will stimulate your sense of compassion and empathy though in another way. Within a few months of caring for your pet, your personality will change and you will find a new and more positivist outlook on life. You will suddenly realize that caring is all that counts in life, caring for your yourself, for your family, for your friends, for all animals, for your country and for planet earth. The **act of caring opens heart space** and only an open heart can experience true happiness and fulfillment through resonance with the web of life. There are many other sources of pleasures in life but none create more satisfaction than the ones that are shared.

Embarking on a vegan diet is a journey that will also change your attitude towards all living things in a very fundamental yet subtle way simply because the vegetarian diet always has been the most natural way for the human species. The notion that eating meat was an essential step in human evolution is simply not true, scientifically. The fact is, that we only began eating meat recently historically, but our basic biochemical functionality is based on plant based foods and has developed over millions of years. Early humans had diets very much like our closest relatives, the other great apes, largely a plant based diet with some meat eating beginning by scavenging, eating leftovers that carnivores had left behind. It was only when the human species migrated to cooler locations and subsequently during the periods of ice ages with plant based food becoming scarce or not available at all, only then humans had to increasingly resort to scavenging and later to hunting. However our bodies have never fully adapted to it, which explains a high incidence of heart disease, cancer, diabetes and other meat eating problems. We don't have the short intestines of carnivores, nor sharp claws or physical attributes to chase animals. Thousands of years ago after we became hunter-gatherers we may have needed a bit of meat during cold winters, but we don't need it now. Many nutritional and anthropological scientists categorically say that humans are natural herbivores. Yogis too adhere to a strict vegetarian or vegan diet and often live to respectable age with fitness of mind and body retained into their nineties and even over hundred years of age in some instances. The oldest known human in the world, an Okinawan peasant, lived reportedly to 116 on a life long diet of sweet potato, pumpkin and vegetable. Not eating meat also means setting the moral foundation to a peaceful attitude to life in your subconscious and conscious belief systems. Over time it will physically change your gravity of mind towards an enhanced appreciation of plant based food and also towards a more ethical treatment of the animal world. When the heart opens fully it becomes a expression of universal compassion, which is our true self. When emotional energy flows freely through your heart space one feels incredible compassion for all living creatures, instantly recognizing their amazing beauty. As a result one will be kind, caring, understanding and joyful and be at ease with oneself. Becoming vegan and caring for animals does something to your heart space in a very deep way, the change is subtle at a conscious level but changes accumulate over time and probably have a physical basis in the brain.

Resonance and attachment:

Experience of suffering can come from attachment to other somethings be it to a thing or living

being. Attachment is the habitual addiction to the ongoing recurrence of pleasurable feelings that come with our relationships to the other something(s) and over time can be deepened through our gravity of mind and cultural expectations. For example in the case of attachment to land or place it is addiction to that what is familiar, safe and supports us with food and so on. We can develop attachment to objects and activities that resonate strongly within us, other humans, pets, friends, wealth, habits but also to entire environments such as the place where we grew up. When we cannot repeat the pleasurable experiences we crave, such when this attachment is forcibly broken (for example experiencing a loss of a loved one), the nervous system experiences emptiness and emotional pain. Since all somethings are subject to change, attachments are bound to be broken sooner or later and as a result we suffer more or less depending on how strong the attachments were. Attachment is a manifestation of gravity of mind and when attachment is broken gravity of mind will continue to operate in mechanical fashion and no amount of rationalization will stop this process until over time the process of forgetting lessens the withdrawal pain.

Everything we do has the potential to create attachment therefore consider carefully what you allow yourself to become attached to for example what you eat, where you live, what you do, who you relate to and what you think. Often emotional suffering arises out of excessive attachment but that doesn't mean we should avoid it entirely. Our choice of attachments makes up a good part of our personality and much of our happiness is generated by it. For example we resonate to the sight and sounds of a loved one, the resonance creates the feel good experience driven by the release of certain hormones all of which reinforces our attachment. The attachment is not to the loved one rather it is to the feel good experience of the hormones.

The resonance of the 'SENGO'

The 'SENGO' as a novel term is considered as the synergy of ego, mind and a resonant empathic human heart, a path of self-realization that ultimately nudges us towards unselfish, altruistic love for all sentient beings (SENtient). Sentience is generally defined as the capacity to feel, perceive or experience subjectively and is distinguished from the ability to reason (think).

The SENGO is understood as a future evolutionary development for balancing the power of the ego. While the ego is rooted in body and instinct, the 'SENGO' is considered as a resolve of internal conflict that arise.

Ego and consciousness reconcile in heart space, the space where we appear to perceive through resonance and while both the capacities of ego and mind are retained, they are softened and restrained by conceptions of the heart. Empathic resonance is our ability to tune into the present condition of another living being as well as into innate matter, experiencing its state by association. We do this by getting close emotionally and physically and by observing without preconceived assumptions. Through resonance we are able to understand consciousness in all somethings, which

together forms the web of life. Humans are the apparent most self-conscious form of all of life on earth and it is through our comprehension of the relatedness of all of life that we realize our responsibility to nurture it. Through human reason we come to the realization that killing life ultimately means killing ourselves. When the host, the web of life dies, we also die. Humans have the capacity to nurture all of life through a clear and precise understanding of the 'what is' and our ability to feel life through resonance is the motivation to help us with this task. Resonance as a form of intuition is the most direct way to perceive the 'what is' or what can be said to exist is in contrast to thinking as a process of making assumptions based on our internal world of the 'what was'. While the 'what was' is often heavily distorted by irrational beliefs and wishful thinking the truth itself always manifests in the 'what is'.

Practical application of resonance (establishing the SENGO)

We almost always instinctively first relate to a person from our heart space, the instant perception of the vibrational state of a person and its emotional status. Really what is happening is what is going on in our brain with our mirror neurons but this perception is felt in 'heart space' in most people. The power of resonance forms our first impression of the person. The ability to form an accurate impression improves with deliberate focus and awareness of the moment. When you're with someone else, your own neurons can mimic the behaviors, moods, and attitudes of the other person, literally putting your own wiring "in sync" with theirs. That is also why we become so like the people we spend our time with. Because of the way your brain will unconsciously duplicate neural activity of the person you're with, anyone you spend your time with can imprint your brain with their programs. And neither of you will know it is happening. The opinions, ideas, and beliefs you hear from the people around you, are all programs. When you hear those opinions, ideas, and beliefs repeated frequently, you can be sure your brain is busy wiring their thoughts into your head. Therefore is it wise to be cautious of what kind of communication you allow yourself to be exposed to through persons you deal with and how you deal with them. Understand that all of sensory perception will re-wire your brain for good or better. That is not to say that we should close ourselves to the ugly aspects of life. For example a person with the heart of 'SENGO' suffers when he or she sees suffering but with an understanding of what goes on, the truth of the 'what is'. If such a person sees the suffering and pain of an injured animal for example, he or she accepts its suffering in his own heart and can feel what goes on and if it is in his or her power to change he or she will. A person without resonance may not even look at the injured animal and so walk away as a consequence because he registered nothing. Whether the animal gets help or not may not matter but the person walking away will not have developed his personal power of resonance or empathy, while the person trying to help the animal will further increase the power of resonance and empathy and learn how to heal the animal. Such a person will establish the gravity of mind towards the path of nurturing the web of life.

The 'SENGO' gives us an immediate idea of the 'what is', whether its a person, an animal or a

situation. If your power of empathy is weak because of a blockage in heart space or a deficiency in your development then you rely on your assumptions by thinking only. In this case you may be easily deceived by your internal world of memory of the 'what was for you'. It is to your advantage that you have a complete and accurate picture of the 'what is' through direct resonance because you are then more likely to have positive outcomes for both you and the 'what is' because your action would be based on truth with direct synchronization.

If you ask anyone about the purpose of life you can get all kinds of answers some non-nonsensical such as the purpose of life is to worship some god in the sky, some self evident such as the purpose of life is to live and some plain stupid so not to be mentioned here. You might not get a clear answer at all.

Purpose implies intention, a plan for a something or a creator creating something for a specific purpose. Science does not know of a creator of life and therefore we don't know what the intention and thus the purpose is for life. We as the human species are likely the chance result of natural laws applied to matter/energy through evolution. It is beyond human comprehension where matter and energy came from because we simply cannot comprehend the concepts of eternity and infinity with our limited brains. Evolution in our current understanding has no other purpose than for the fittest to survive. The larger cerebral cortex of the human is not necessarily the pinnacle of evolution, we can't fly, we can't swim underwater for any length of time, we are only fit for a very narrow range of conditions and are quite clumsy and restricted compared to other life forms. Many living creatures are much better adapted for most of our planets more hostile locations. **The members of the web of life are equally important because we don't know where evolution of life is supposed to end up!** We share the planet to mutual benefit because everything relies on something else and no life can exist in isolation. Humans multiplied and got away with our short comings by taking away habitat and resources from other life using ingenuity but this is now coming to an end as our basis for existence is evidently critically undermined.

In order to share the Earth in synergy with other species, humans must find a way to **curb our population, our scope of consumption, and man driven encroachment of technology on the natural world.** We can only do this to the extent that we nurture the life of the natural world and include all living things in it. The notion of human superiority is irrational and arbitrary from a neutral objective viewpoint. To affect a positive change on a planetary scale towards synergy with the web of life we have first to change our gravity of mind away from exploitation and domination towards the empowerment of 'love for nature' in every individual. It is increasingly becoming clear that right now we are fatally injuring the web of life on the path to extinction. Not only do we have the need to mitigate and adapt for self preservation of the human race but also a **duty to restore the planet as the host for the web of life**.

Life seemingly has no mission or purpose, it just is the 'what it', the outcome of the natural law of

cause and effect and therefore the right action is to act in accordance with the law. The law is self evident and self regulating, you learn by making mistakes and then correct your actions. The wrong actions will force you to self correct sooner or later because if you resist you will suffer as long as you carry on with wrong action. In India they call this the law of 'Karma'. It applies to individuals as it applies to companies and indeed the human race on the whole. We are now on a path to extinction on a business as usual trajectory, not only our own extinction but the extinction of most of life on planet earth.

We know that putting fellow animals in cages is wrong, we know burning up fossil fuels is wrong, we know clearing land until nothing of the natural is left is wrong, we know discriminating others on grounds of color or some other trait is wrong and as long as we know we will have to bear the consequences of wrong action and not before long the natural law of cause and effect will forcibly correct us one way or the other.

When we live from our heart space, we always and automatically act in accordance with natural law, because the SENGO in heartspace is the balanced effort of ego, love for the web of life and mind directly connected to the 'what is'. We are happiest when we attempt to fulfill our duties in a balanced way, even if we fail, we have done so in the knowledge of having it given our best of our ability.

The principal goals in the coming years is to invent and enact ideas to help make our way of life a more balanced effort of ego, resonance and mind in individuals, a more deliberate considered effort to reduce the collective ecological foot print to a minimum so as not to unduly impinge on other living things and also to the repair the damage already done.

The question of 'what is the purpose of life' is answered quite simply, life has no purpose other than what we make it according to the natural law of cause and effect. We are but a tiny part of the web of life. The purpose of us as a something is really the purpose of us as integral part of the 'what is'. For us as somethings for all practical purposes, life on planet earth is being the web of life, life on planet earth is us.

OUR PURPOSE IS TO NURTURE THE WEB OF LIFE BECAUSE THE WEB IS ME, IS YOU AND IS ALL OF OUR LITTLE FRIENDS SITTING IN THE ONE BOAT THAT CONTINUES THE JOURNEY OF THE EVOLUTION OF LIFE.

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