Title: Omni, A Mathematics Model of Our Spiritual Reality Author: Kushal Prateek Goel

Abstract:

The experimental sciences declare that if it can't be weighed or measured, then it isn't scientific.

But where does that leave spirituality? Spiritualists declare a truth to this existence that is before and beyond any measurable phenomena.

What to do? Do we pass off spirituality as nonsense because it proclaims a truth that cannot be observed under a microscope or verified through a telescope? Or are we forced into a stalemate: all things spiritual can never be scientific and vice versa?

This book presents a different possibility. It presents the following positions:

- 1. There is a truth to this existence that is before and beyond material phenomena.
- Mathematics is the only science that can possibly model that truth because Mathematics is the only science that does not require observable phenomena for its success. (The fact of 1 + 1 = 2 is based on constancy of definition for those symbols, not on 1 apple plus 1 apple equaling 2 apples.)
- 3. We can use simple Mathematics to classify aspects of this existence that are "spiritual", that is, before and beyond material phenomenality.
- 4. First, we explore the mathematical properties of 0, 1 and Infinity and their application to this reality:
 - We use 0 and its math properties to model consciousness or the ultimate ground of Being.
 - We use 1 and its math properties to model the body, the identity, the Universe, and anything else that can be grasped by the hand, eye or mind.
 - We use Infinity and its math properties to model the synapse and sentience.
 - We use Infinity to model why we experience a subjective-objective split in this reality.
- 5. 0, 1 and Infinity (including arithmetic operations and the square root) are posited as the necessary and sufficient basis for all numerical values and all geometries. We posit these three are the fundamental generators of our reality too.
- Not only are these 3 values foundational in Mathematics, they are spoken of by spiritualists across spiritual traditions. Take one example from Christianity: the Father (0), the Son (1) and the Holy Spirit (∞). These concepts exist in virtually all spiritual traditions and are discussed at length.
- 7. We call this math-based spiritual model of existence "Omni" and give it a symbol for convenience and organizational purposes only. The name and symbol are utterly unimportant to the positions of the book.
- 8. We can use only the values 0, 1 and Infinity and the universal phenomenon of the cycle to mathematically derive a 4th value: Phi, or the Golden Ratio.
- 9. We show how the fractal of the Golden Ratio is a model that yields at least 5 unique properties of our existence, properties that are spoken of in many spiritual traditions.
- 10. Having explored these, we look at some applications of the findings, for example a re-organization of spiritual practices that have been outlined in various spiritual traditions, or for example, the organization of spiritual community.



Omi

A Mathematics Model Of Our Spiritual Reality

Kushal Prateek Goel

Omni, A Mathematics Model of Our Spiritual Reality

by Kushal Prateek Goel

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Mathematics presents Understanding Understanding inspires Confidence Confidence encourages Practice Practice invites Transformation Transformation bids Celebration of Life Divine For all my teachers

Preface

Surveying the landscape of human invention, take a moment to marvel at some of the feats that science and technology have delivered to us in the last couple centuries. Things we can do today would be regarded as pure magic to humans just 10 generations ago.

We can make planes fly and land at a precise location hundreds or even thousands of miles away with rare incident daily; we can harness the energy of the sun, wind, water, and Earth; we can communicate with and see each other in real time from anywhere on the planet; we can carry entire libraries on devices no larger or heavier than a single book; we can correct our eyesight using lasers; we can map the interior of the brain without cutting into it; we can accelerate subatomic particles very nearly at the speed of light; we can precisely measure time down to unimaginably tiny increments; we can peer into the depths of the universe. All this and so very much more is available to us today as part of our daily lives. If you could travel back to the early 1800s and told someone this would all be true in just two centuries, they might simply laugh incredulously. Yet here we are today with this as our daily reality.

What makes these marvels possible, and what lies underneath and behind the engineering prowess that allows for these feats to occur regularly, is a model of universal laws that is described by Mathematics. Have you ever wondered *why* we are able to accurately model our Universe and the way it works using this symbolic language? How is it that we find ourselves in a Universe that we can model so reliably and with such incredible precision using the science of Mathematics? Clearly, there is something about the design of our reality that is inherently mathematical. Mathematics isn't just something humans invented and wished were true; it is a science we discovered which accurately describes the existence in which we find ourselves. It has given us magical abilities. Further, there is no reason our existence should yield to Mathematics. That it does is truly marvelous and awe-inspiring.

The question naturally arises, what might we be able to do two short centuries from now that today we would consider impossible, pure magic? How might humanity look? What if wars and prisons were no longer? What if all mental illness was gone? What if every human being felt happy and healthy for the majority of their long lives without ever touching a pill? What if every human had all their needs met in abundance without inflicting damage to the environment? What if the Earth environment was some version of a Garden of Eden where all species might revel and enjoy? What if humanity had daily new reasons to celebrate existence on planet Earth and wherever else we might find ourselves? Are these possibilities laughably impossible? Or is it all quite possible once we have a better, even more useful model of existence?

The magic of the last century occurred through advancements in our understanding of the objective universe in which we live. But much of the magic spoken of above would require a deeper knowledge of man's inner life and how we might transform it. It requires a better model.

The sciences that currently deal with human transformation such as psychology are presently on shaky theoretical footing. Though every psychologist is familiar with the fact that the original definition of "psychology" means "study of the spirit", there is presently little or no acknowledgement of spirit and no comprehensive theory of man as an existential unit. In modern psychology, there are more theories of man and his inner workings, than there are divisions of Christianity. This is not meant as an attack on psychology (or Christianity), rather it is meant to highlight that psychology is in a precarious position with respect to a unified model of man's inner world. We have no codified understanding of the laws of consciousness and how we might use those laws to reliably improve man's conscious states. A materialist model of man that seeks transformation solely by altering our DNA, for example, has not presented a viable avenue of making the above magic possible because far too much of our behavior doesn't appear to be fixed by DNA. DNA seems more akin to a list of ingredients than it is to any specific recipe for man. Altering the arrangement of the ingredients doesn't guarantee a better cake. And yet we also know that real transformation of man is possible in psychology without directly manipulating biology or chemistry—so there must be *something* already working there. The question is, can that something be modeled mathematically?

There is a model of existence that has been present for thousands of years, across traditions, which points directly to the inner transformation of man—but it is buried beneath odd, mystical or religious language to which many can no longer relate, especially scientists. I believe that same model of existence—a spiritual model—can be clarified using Mathematics.

You might be uncomfortable with the idea of having to engage with Mathematics in this book. Let me attempt to settle any discomfort by saying that the Mathematics discussed in this book is simple. It is based in an understanding of just a few important symbols. We will first review the symbols 0, 1 and ∞ (Infinity). If you already feel relatively comfortable with your understanding of these, or at least not entirely uncomfortable, then rest assured, the Mathematics presented here is very much in your intellectual reach. From there, we go one minor step deeper into a discussion of another number mathematicians call the "Divine Proportion" or "Golden Ratio". If you are not familiar with it, it will be introduced and discussed with simplicity and with many examples so that you can see and feel what it is.

The reason we are discussing such symbols and numbers is because numbers are names. Just like we use the letter "I" to denote oneself, we could also use the number "1" to denote oneself or for example a *universe* (from the Latin "turned into one"). Here 1 becomes more than an inert number but a living concept of identity, unity, wholeness, first-ness, etc. So, we will be doing this sort of naming and describing for 0, 1, Infinity and the Divine Proportion. We will also be looking at the relationships between these symbols. If you feel anxious about Mathematics, try not to worry. All these symbols will be introduced and discussed with simplicity and only to the extent that they apply to what we are discussing: a spiritual model of existence. When certain concepts go into higher level math, they will be set in brackets [like this]. Feel free to skip or ignore those sections; they are very few and very

short anyway. Ultimately the reason for using Mathematics is because it may be the only scientific language capable of clarifying a spiritual reality. And if a spiritual model is ultimately a better model for *this* reality than the current materialist models, it gives us a truer account of existence and more possibilities for humanity. It may open new paths to attend to mankind's inner transformation. It could build toward a quantum leap of marvel.

Of course, every model of existence has its limitations. None can express the totality of truth, because total truth evades encapsulation. Whatever could encapsulate the total truth would itself have to be more fundamental than the total truth in order to encapsulate it. Therefore, we can immediately reject the possibility that the total truth can ever be encapsulated. As the Chinese philosopher Lao Tzu eloquently put it, "the Tao that can be spoken, is not the eternal Tao!" (*Tao Te Ching*, 1:1) One of the beauties of Mathematics is that rather than attempting to encapsulate reality, it runs alongside it. This is a good way of thinking about the model of existence presented in this book. It runs alongside reality.

To be sure, this book hardly presents a "science of spirituality". A true science and its useful application require the minds and hearts and wills of so many people. Hopefully, it encourages further Mathematics-based inquiry into spirituality. That said, what is given here is meant to open your mind to the possibility of dimensions of existence beyond what is available to the senses and what the experimental sciences have presented to us as possible. As with any field of study or new model of existence, be sure to consider your own truth and, in the words of Shakespeare, "Above all, to thine own self be true." (*Hamlet* I:III:78)

What is presented here is a spiritual basis of existence and an understanding which hopefully encourages you to locate a teacher and practice. With understanding and practice, see for yourself whether non-graspable dimensions of Being are true, and whether reliable transformation of your own inner nature is possible.

This is Omni, A Mathematics Model of Our Spiritual Reality.

KPG, Sep. 2020

Introduction

When I was 11 years old my mother indirectly introduced me to the subject of spirituality. Having just come back to our home in Upstate NY from one of her summer trips to India, she brought with her many books on the subject. One set that immediately caught my eager young attention was an 8-volume compilation, "The Complete Works of Swami Vivekananda" primarily on the subject of yoga. If you aren't familiar with Swami Vivekananda, I can tell you briefly that he, more than any other guru or teacher, is responsible for introducing yoga to the West when in 1893 he delivered a talk to the World's Parliament of Religions in Chicago on Hatha Yoga and Hinduism. I would read this collection late into the night, every night for months. To get a sense of the books and their content, here is a quote from Volume I:

"The Christian asks you to believe in his religion, to believe in Christ and to believe in him as the incarnation of God, to believe in a God, a soul, and in a better state of that soul. If I ask him for a reason, he says he believes in them. But if you go to the fountainhead of Christianity, you will find that it is based upon experience. Christ said he saw God, the disciples said they felt God; and so forth. Similarly, in Buddhism, it is Buddha's experience. He experienced certain truths, saw them, came in contact with them, and preached them to the world. So with the Hindus. In their books the writers, who are called Rishis, or sages, declare they experienced certain truths, and these they preach. Thus it is clear that all the religions of the world have been built on one universal and adamantine foundation of all our knowledge—direct experience...The teachers of the science of Yoga, therefore declare that religion is not only based upon the experience of ancient times, but that no man can be religious until he has had the same perception himself. Yoga is a science which teaches us how to get these perceptions." (*The Complete Works of Swami Vivekananda* Vol I:126-7)

If you practice yoga and are wondering what Vivekananda is talking about here or trying to figure out how stretching and breathing routines lead you to spiritual truth, your confusion is well-noted. Hopefully, as you continue reading this book, the higher aims of yoga and its spiritual practices will be made clear herein. To be sure, this is not a book on yoga. It presents greater understanding of the theology and practice of many spiritual traditions.

Setting aside for the moment a discussion of yoga and its purpose to give you a direct perception of spiritual reality, you might wonder why an 11-year old boy would be interested in such books. Truthfully, it was a fascination that chose me rather than the other way around. I was discovering something new about my own personality and curiosity in that moment. I didn't know it at that time, but those books awoke in me an insatiable curiosity that set me on a lifelong path to understand the grand mystery of existence. I imagine you too likely have asked yourself at some point or another in life, "What's the purpose of my life?" or "How is it that I am here?" or "What happens when I die?". For me, the questions of existence kept me awake at night. The miracle and mystery simply did not leave me alone. This set of Vivekananda's work burned in me a desire to know the truth about existence and what the purpose of life is and whether there was a reality that wasn't available to my immediate senses. Prior to coming across his books, I was only ever interested in reading detective stories. "Encyclopedia Brown", by Donald J. Sobol, was my favorite young detective character and I would insist on solving the short mysteries from the clues given, before reading the solution. I was pretty good at it too. But the mystery of existence and whether there was a spiritual truth underlying it was, to say the least, on a completely different level than Encyclopedia Brown. This was a mystery that took me the next 33 years to begin to express clarity on.

In childhood, the only clues I had of a reality that existed beyond an easy explanation were from my own experience. From a young age I knew I had the ability to see the future. On occasion, I would see in my nighttime dreams, events that would play out a day or two later in my waking life. The visions were never anything terribly interesting like winning lottery numbers, mostly they were brief and boring, but unmistakably precise. When the vision transpired in my waking life, that the event was the exact image of a dream I had a night or two earlier was too real for me to deny. A couple experiences of dream-meetingreality remain in my memory even to this day. Those experiences, coupled with Vivekananda's convictions, presented to me the possibility of an understanding that transcended what we knew about existence then, and remain inexplicable now. They inspired and propelled the bulk of my entire life's journey. This included travel to 47 countries, learning from teachers and masters on every continent (charlatans too!), and countless hours in meditation and contemplation—many other practices too. In my travels, I discovered that I was not alone. I routinely came across people from all walks of life who had experiences that defied the known physical laws.

Of course, these occurrences have no experimental controls on them and so can be easily dismissed by the rational mind. But a simple online search for "life-after-death experiences", for example, now presents a volume of personal accounts too large and too similar to just shrug off as ridiculous. Something about our existence is not limited to these three spatial dimensions and single time dimension. We could seek to fit these independent, personal observations into the current "object-centered" scientific assumptions about our existence, even reject them entirely, or we could begin to question whether the current materialist model is the best model of existence. When it comes to man's inner world, must we continue to look only to object-oriented Biology and Chemistry to explain man's inner workings?

Over time, I began to have more experiences of the reality talked about in the spiritual books of my youth and by the masters I learned from as an adult. These include experiences such as no longer perceiving myself as a unit consciousness located in space and time but rather consciousness expanded and merged with the fabric of existence itself. Any sense of "I" had completely dissolved and what remained was something miraculous. Words fail the experience of the subject-object schism dissolving first into fractal patterns, then a miraculous

light, and then completely into an infinite sea of bliss and love. This was not a permanent state but when the sense of "I" returned, a permanent awe and greater ease remained; the heart was open and available too. There were visible differences in my physiology as well. I have had these types of experiences on more than one occasion. Most of them, as you can imagine, words can only render a poor approximation. But as certain attestations that have been repeated and communicated down the ages were directly experienced by me, I began to feel a conviction there was something much grander about existence than what our current scientific models can encapsulate. These aren't experiences that I alone have had. They are shared and communicated similarly by many people, across cultural and spiritual traditions across time. It begs the question, is the brain alone responsible for these kinds of experiences, or are we merely chugging along with a poor materialist model of existence, one that no longer well-describes all of existence, especially with respect to consciousness?

On my 40th Birthday, I decided to do an all-day meditation at the final resting place of one of my spiritual teachers (Swami Satchitananda's ashram at Yogaville, outside of Charlottesville, Virginia). Near to the closing time of the tomb, I had a surprising and powerful vision and initiation from the master. The vision I had made no sense to me at the time and likely won't to you either without a lot of backstory, so I withhold from sharing it now. But what I will share is that immediately after that vision and initiation, I began to receive in my morning meditation what I can only describe as a Mathematics of Spirit.

As a child, Mathematics was a language that came easily. It was not a language that required a lot of heavy mental effort on my part, but rather it spoke to me intuitively. Though I only studied through Advanced Calculus in college (for which I received an A+ if you're curious), it remained inside me as a language to which I felt intuitively connected. I can say clearly though that it was not my mind that was engaging the understanding presented in this book, but rather it is an understanding that was arriving much like a car radio might pick up a radio station when properly tuned. It was a passive receiving more than any "figuring out".

To be honest, I found this receiving somewhat annoying at first since it prevented me from meditating in the way I was accustomed. But over the last 4 years, I came to see that I was receiving a framework for understanding my own spiritual practice. It began to align many ideas from the many teachers I learned from while travelling the world. It felt to me a truer model of existence, or at least consciousness, and presented me with more clarity for the experiences that I had. I don't honestly know if it will do the same for anyone else; I hope it will, but that is somewhat beside the point of writing. One thing that became clear to me on the spiritual path is that certain things call to us, and in this way, aspects of our lives are lived through us, rather than by us. Pursuing and communicating the understanding became for me, in the words of a wise friend, "a choiceless choice". We of course always have the choice not to listen, but I found out, time and again, that not listening to that inner guidance led to misfortune in life. Not surprisingly, the primary deathbed regret of the dying is not having the courage to live life in accordance with one's inner guidance. Despite the potential ridicule or attack presenting such a model might earn me personally, presenting it here is my choiceless choice.

Along with theologies from many spiritual traditions, I learned the scientific method a method which mostly condescends to theology as intellectually deficient. In one sense, I agree. A unique feature of the sciences is that they are mostly democratic, meaning that anyone can contribute their ideas, inventions and theories and thereby understanding can struggle and evolve. Religions, by contrast, begin from the ultimate truth and therefore there is no reason anyone would or should question or add to them. There is no room for a Christian to refute or add to the teachings of the Christ, nor the Muslim to refute or add to the teachings of Mohammed, nor the Buddhist to refute or add to the teachings of the Buddha. In fact, followers of these religions add to the teachings all the time, but they are considered as "lesser than" additions. This to me is a weakness of religion because it makes truth a rarity, something that only a few anointed ones can ever behold. If we cannot all arrive to the truth, then it seems a very weak truth to me-weaker even than the fact of the mobile phone. Additionally, when religious teachings are not focused solely on what is universal and eternal. the teachings necessarily splinter, schism and break. Seeing how much schism there is within spiritual traditions, there is simply no consensus on truth even within any one faith. That might be only a benign annoyance if the consequences of those differences didn't include militancy about beliefs and exclusion or death for non-believers. Another strength of the scientific method is that it demands repeatable evidence for any theory. This allows anyone to participate and verify. Religion, especially Western religion, generally allows only two options: believe or leave. Given the amount of time modern man spends on attending to spiritual reality, it seems many people decided to leave.

In these respects, it seems to me that the scientific method carries a more powerful approach to knowledge than theology. However, the strengths of the scientific method aside, the scientific philosophies of existence—such as objectivism, positivism, materialism and mechanism—make no room for Spirit. Because the scientific method relies on objective evidence in any demonstration of fact, if we rely on the scientific method alone to examine the scope of our existence, we are unwittingly accepting that all dimensions of our existence can be weighed, measured, grasped—or else "non-scientific". But if Spirit is true and yet non-graspable, then the scientific method and the philosophies it rests upon grossly limit mankind's understanding of existence. Worse still, these scientific philosophies may have inadvertently swayed vast numbers of people toward living a secular, materialistic or mechanical existence. This should come with little argument—this is directly the theoretical and philosophical framework on which the objective sciences proceed. And that too is not benign. Secular existence leaves many humans feeling empty, depressed, anxious and wanting something more, not because they wished it so but because many have a faith or intuition that there *is* more to our existence than meets the eye.

Just as many feel uninvited to refute religion, many feel incapable of refuting scientific philosophy. Curiously, many scientists and almost all mathematicians still believe in

something more than what their senses or lab equipment or formulas can show them. They too have *faith*, in an unimaginable order that pervades existence. They get up each day and work hard and faithfully to discover some corner of it. Perhaps these scientists see a division between science and religion that should never be crossed. Science talks about one reality, religion talks about another, and never the twain shall meet.

So, if a "science of spirit" could be attended to, I suspect more people would be drawn to it. Perhaps more scientists would begin to work with it, rather than dismiss it or exclude it as a different reality. Since the traditional objective sciences such as Physics, Chemistry and Biology all require evidence that can be seen, weighed or measured, there is only one traditional science left that could accept a spiritual reality: Mathematics. This is because Mathematics does not require objective evidence. It requires only constancy of definition. "One plus one equals two" is based on consistent definitions for all five words used in that equation. No objective evidence is *required* for its mathematical truth. Mathematics is, in this sense, a circular science; it seeks only to prove its initial definitions. Therefore, Mathematics alone is presently in the unique position among the traditional sciences to model a spiritual reality because it is not looking for an object to verify what is not an object, that is, Spirit. Personally speaking, I believe if a spiritual reality cannot be modeled mathematically, then it is likely false. My faith in Mathematics is nearly equal to my faith in spiritual reality.

On one hand, the application of Mathematics to spirituality lifts spirituality out of the vague mysticism, clunky religiosity, tacky showmanship, irrational militancy and even outright lies that too often attend the subject. On the other hand, expressing a Mathematics of spirituality makes spirituality seem like a school subject or academic endeavor, which it is not. Spirituality is the subject of living itself. Nevertheless, I believe if we can begin to codify the concepts contained in our spiritual reality using Mathematics, it may help to communicate that reality to a wider audience who feel estranged from spirituality or who have come to think spirituality as pure nonsense. Further, if a spiritual reality is truly the very nature of *this* reality, Mathematics might assist us far more than I can presently comprehend. It might lead to pure magic.

To be sure, I care not for anything false. My childhood fascination and one that has continued to this day is with the truth. I have enough personal evidence that a spiritual reality is true, and I believe Mathematics can model it. Though Mathematics cannot impart a direct experience of spiritual reality (any more than James Maxwell's principles of electricity can give you the direct experience of electric shock), it yet assists understanding. That understanding could help inspire us to practice those practices which have been passed down for thousands of years across spiritual traditions in order to have a direct experience of that reality. It could help design newer, even more effective practices too.

I have a second more personal requirement for spiritual reality: the experience of that reality, should it be possible, should be useful. It should have a profound effect on our lives. It should give us a deep sense of joy and relaxation about life. It should offer purpose and meaning to life. It could offer real healing. A direct experience of spiritual reality is the type of basic revelation that has the power to affect everything we feel, think, say and do. It has

the power to change all humanity and our daily lived life. It may inspire us to celebrate existence. It is with this inspiration at heart that this book is written.

Spiritual encouragement is my great intention in writing and presenting this book, not merely to write a book pointing to spiritual reality. A clever theory that isn't practically useful is something no one really needs. On the practical side, this book by itself does not present much for you. Here are words and ideas, and these alone do not present any great experience of truth. That said, you may recognize some truth in it and that alone has merit. Interestingly, truth is something that I always recognized rather than invented, which meant to me that the truth must have already existed within me, patiently awaiting my re-cognition. Truth is already here and now within you, awaiting your revelation, uncovering, discovery.

To that end, what this book presents is a model of existence that can already begin to help orient you to spiritual practice. The same model of existence gives a natural and logical arrangement of spiritual practices that have been pointed to in some form or another across spiritual traditions the world over. A general understanding of the aims of spiritual practice is given here and a template for spiritual practice too, but it is truly the work of a second book to explain the application in detail. The spiritual understanding presented in Omni is presented for practical application in *Soma, A New (Ancient) Model of Body and Healing* (unpublished). While Omni is a book of faith and reason, Soma is oriented toward practice.

Returning finally to yoga and its design to give you a direct experience of spiritual reality, as scholarship on yoga has exploded in the last decade, many scholars of yoga will tell you that yoga has been ever evolving for the last 3500 years (at minimum), as what defines "yoga" is different at different times. Of course, scholars need to justify their positions and they do this by highlighting nuance. While this nuance has some intellectual value to it, to deny that the bulk of yogic observation and practice centered around the topic of spiritual realization, is in a word, obtuse. By communicating so much nuance, the scholar obfuscates the central thread. Still the central thread of yoga remains: spiritual realization. That said, as my own experimentation went far beyond the many branches of yoga, I advocate for a wholistic approach, using wisdom from many traditions. Further, many of the practices of yoga already existed in other spiritual traditions or have been adopted and modified in new cultural settings because of their efficacy and usefulness to humans regardless of spiritual background.

An incomplete list of practices that I have experienced, learned or experimented with on my own spiritual path follows:

Hatha Yoga, Laya Yoga, Mantra Yoga, Kundalini Yoga, Nyasa Yoga, Bhakti Yoga, Karma Yoga, countless varieties of meditation, concentration and contemplation practices, prayer, fasting, Christian baptism, Christian communion, Bible study groups, reading scripture from every major spiritual tradition, men's groups, sweat lodge, fire ceremonies, drum circles, shamanic drum journeys, mountain pilgrimages to sacred sites, extended silent meditation retreats in North and Central America, Europe, and Asia, faith healing, reiki, qigong, Taoist

energy practices, Taoist and Tantric sexual energy cultivation practices, sacred sexuality practices, extended periods of celibacy, ritual cleansing in holy rivers, Tibetan sound healing, gong baths, ecstatic singing including choir, hinário and kirtan, ecstatic dance, bodywork from Japanese, Thai, Indian, and European traditions, trauma release therapies, entheogenic plant medicines of various types under the guidance of long-time shamans from Brazilian, Peruvian and Mexican traditions, shadow work, deathwork, breathwork including numerous yogic breathing techniques, holotropic breathing and tummo breathing, rebirthing, receiving blessings from the Dalai Lama and the Karmapa Lama, receiving initiation from masters of various spiritual traditions, countless small seminars, workshops, retreats...and of course the greatest spiritual practice of all: living life itself.

Therefore, the basic understanding of practice presented here and explicated in Soma is necessarily more encompassing than yoga. Because yoga was and remains an integral part of my spiritual journey, its theory is included and often referenced in the model. I will also provide a specific example of how the great variety of yogic practices align to the general template of spiritual practices presented here. The template is arranged in a way that both Mathematics and my intuitive understanding supports, even if somewhat arbitrary. In the end, no one path fits all. Certainly, there are many more practices and many teachers who can guide your journey onward. Use what serves you, leave the rest. The template for practice presented here is merely meant as a guide, and nothing more than an introduction at that.

The same basic model of existence can be used to organize community toward the many purposes of man. Community is a powerful aid in one's spiritual journey and perhaps those who wish to engage in community might desire an understanding around which to organize. The spiritual organs of man are also presented here for anyone to use and adapt.

It is my sincere wish that humanity develops a science of spirit for the healing and transformation of man. And with that transformation, let's celebrate!

Om lokah samasta sukhino bhavantu

Om, may all beings be happy.

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The Ouroboros

Like the fabled Ouroboros, the snake who eats its own tail, we begin at the ending and proceed to show how we got there.

We use Mathematics to organize a set of spiritual practice categories, given across spiritual traditions, for the higher realization and celebration of the essences of Life.

This is introduced in Principle VIII but is more properly the subject of a second book.

Using Mathematics, we present the following 5 properties of existence:

- 1. The whole of existence is a self-developing, self-similar entity—a fractal. All is One.
- 2. Each facet of existence bears a unique relationship to the Absolute. All is One-of-a-Kind.
- 3. The whole of existence is pervaded by a grand harmony and balance.
- 4. The whole of existence is pervaded by a universal intelligence.
- 5. The whole of existence is an ever-expanding consciousness through form, a virtuous path of the Heart which, in its greatest fulfillment, includes Love for All.

These are discussed in Principles V – VII.

Using Mathematics, we present 3 basic generators of existence, *this* reality, a trinity:

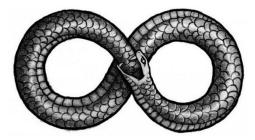
Absolute, 0,

Definite, 1,

Infinite, ∞ .

These are discussed in Principles I – IV.

Presented for your consideration are 8 Principles, including Mathematics and Spiritual Commentary.



8 Principles, Including Mathematics and Spiritual Commentary

I. The Absolute is.

Mathematics Commentary:

In Mathematics, we are given the symbol 0. If we look at the mathematical properties of 0, we see it describes a "that which is" with the following characteristics:

- 1. 0 is that which cannot be cut. Division of 0 by any other quantity returns only 0. 0 is eternally uncuttable. 0 is uniquely so in the numeric universe.
- 2. 0 is the sum total of the entire quantitative universe (all Real positive quantities + all Real negative quantities + all Imaginary positive quantities + all Imaginary negative quantities). When all quantities are summed, their sum is 0 (Figure 1.1).

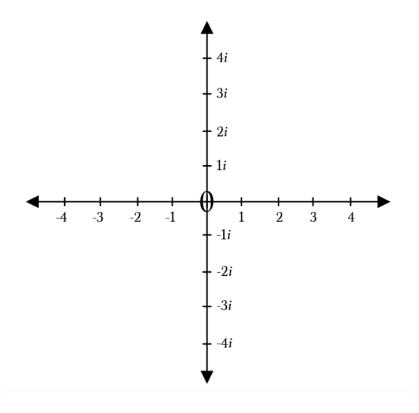


Fig 1.1 Complex Plane, including Real and Imaginary axes

- 3. Paradoxically, 0 is itself both non-composite (cannot be broken into parts) and the total composition (see point 2 above).
- 4. 0 is the center of the entire quantitative universe (Figure 1.1).

5. 0 is called the "origin" in coordinate systems. (0,0) is the origin of Descartes' coordinate system and 0° is the origin of the Polar coordinate system (Figure 1.2). 0 is the necessary point of reference for these systems, without which the systems are immediately disoriented. 0 orients the entire system. 0 is the origin which orients the quantitative universe.

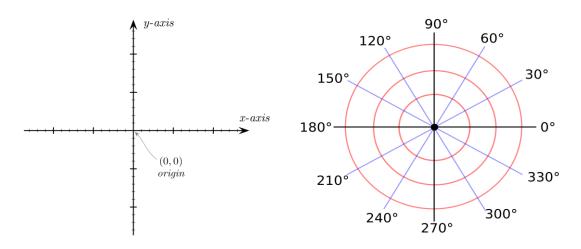


Fig 1.2 Cartesian (left) and Polar (right) Coordinate Systems with 0 as Origin and Orientation

- 6. The absolute value of any number is its intrinsic distance from 0. 0 is that by which the entire quantitative universe knows its real value.
- 7. 0 is empty of quantity. 0 is the non-quantity.
- 8. 0 is mysterious. It cannot be perfectly defined. We know this because, logically speaking, any perfectly defined quantity divided by any perfectly defined quantity should yield a perfectly definable result. We know in Mathematics that division by 0 yields no definable answer. The answer is a pure question mark. Therefore 0 retains a property of evading perfect definition.
- 9. 0 is without opposite (has no negative or positive expression). 0 is uniquely so in the quantitative universe.

As such, Mathematics considers 0 as *absolute* (from the Latin, that which is "free, set apart, not relative").

Spiritual Commentary:

Every major spiritual tradition on Earth acknowledges, in one way or another, the notion of an Absolute often with at least these properties: indivisible, the sum total, both non-composite and the total composition, the center, the origin and point of orientation, arbiter of

real value, empty of materiality or quantity ("spiritual"), undefinable, uniquely without opposite.

These are the exact same properties which the science of Mathematics discovered 0 as having. 0 is the therefore the symbol we use to represent the Absolute—that which is free, set apart, not relative.

The Christian calls it God.

The Muslim calls it Allah.

The Jew calls it YHWH, the unspeakable, indefinable.

The Hindu calls it Nirguna Brahman, the Absolute without characteristic.

The Buddhist calls it *Sunyata*, the inherent emptiness or void underneath and preceding all phenomena*.

The Chinese philosophical system calls it Taiji, or "supreme ultimate"

In Kaballah, a mystical offshoot of Judaism, it is called *Keter*, "emptiness" and sits atop the Tree of Life.

In the Bhagavad Gita, one of the principle texts of yoga, we can hear echoes of 0 in its descriptions of the Supreme Being:

"This cannot be cut, nor burnt, nor wetted, nor dried, This is eternal, all-pervading, stable, immoveable, ancient.

"This is said to be unweighable, unmanifested, and unchangeable. Therefore, knowing it to be such, thou should not grieve!"

Bhagavad Gita, Chapter 2, Verses 24,25.

The 9th Century Arab philosopher Abu Nasar al-Farabi considered the Absolute as "The First Existent", in which we can also hear the echoes of 0:

"[The First Existent] is perfect, eternal, everlasting, uncaused, free of matter and without form, with no purpose external to itself, with no partner or opposite, and indivisible."

Stanford Encyclopedia of Philosophy from al-Farabi The Virtuous City, 56-89.

The Tao Te Ching, an ancient Chinese text written perhaps a century before the Bhagavad Gita, also contains an account reminding us of 0:

There was something formless yet complete

That existed before heaven and earth;

Silent and void.

Dependent on nothing, unchanging.

All pervading, unfailing...

Tao Te Ching, Chapter 25

The language of Mathematics is not necessarily the inert language of combining and dividing quantities. You may have been conditioned to believe that because the people who taught you Mathematics had a purely secular aim. There is nothing inherently secular about the symbol language of Mathematics. It already includes a symbol whose properties clearly describe that which is Absolute: 0.

Some may have a difficult time considering the mathematical symbol 0 as a symbol of the Absolute. This may be a result of considering only the "non-quantity" property of 0. Non-quantitative is of course one property of 0, but to limit 0 to this property is like limiting the definition of a tree to "non-grass". It is attempting to define 0 in relation to quantity alone. But just as a tree has more unique properties than "non-grass", so too does 0 than non-quantity. If you must reduce 0 to a single mathematical property, perhaps it helps to consider 0 as either the "Supreme Basis" or "Origin".

The metaphysical assumption underlying the objective sciences (i.e. those sciences that demand and proceed on manifest evidence alone) is that only that which can be weighed or measured exists. This is a limitation of the grasping mind which will be discussed further under Principle VI. A recognition of 0 is a recognition of that which cannot be weighed or measured. It is a recognition of a dimension of existence that evades capture. 0 is eternal because it is unborn; is free because it is undying. Furthermore, imagine the limitation to mankind if all of our sciences demanded only objective evidence to establish truth, and yet there exists a "that which is true" without objectivity. Thankfully, the king of sciences, Mathematics makes no such unnecessary demand.

The Absolute as 0 is non-graspable and therefore not fully conceivable. It remains inconceivable because it is before the point of conception. 0 remains forever unfathomable, because it is the deepest. It cannot be wholly understood because 0 is the undermost standing. Any strict and complete definition of 0 would instantly make it something other than 0. Mathematics, like religion, can only ever point to 0 and its properties. It represents that which is eternal because it does not die. It does not die because it was never born. 0 can only be known by the letting go, empty mind, not the grasping, holding mind. There is simply nothing there to hold. 0 is the profound mystery that humbles all who accept it as such. 0 is the basis of all mysticism because it can never be perfectly defined. A mental approach to 0 can be made only through its attributes, which is yet derivative and indirect. Yet we can know 0.

As 0 is the Supreme Basis, it is the subject not the object. 0 is the holder and beholder of quantity, not the held or beheld. It is the weigher, not the weighed. It is the measurer, not the measured. It is forever invisible to the eye. It is the source of light behind the eye and in the mind. It illuminates the subjective space of the person. Seeking objective evidence of the Absolute is as ignorant as a flashlight seeking the source of the light it casts.

As 0 is that from which all is generated, by which all is evaluated, and to which all terminates, the yogi considered pure awareness or consciousness as intimately related to the Absolute. Pure consciousness—the generator of experience, the weigher and measurer of experience, the termination of experience—is pure, undifferentiated potentiality. The man who said he looked somewhere for consciousness but did not find it, cracks a joke. Consciousness is necessarily everywhere or nowhere at all. We discuss the omni- properties of consciousness in Principle III.

Developing the "witness-consciousness", that is, consciousness detached from any manifestation, is the basis of many Buddhist and yogic meditative practices. The yogi had another practice called *mantra*, repetition of a phrase in order to train the mind. *Neti neti* meaning "not this, not this" or "neither this, nor that" is a mantra used to de-identify the yogi from any identified experiential object in order to experience the Supreme Basis, pure awareness, consciousness or Being.

Awareness is an empty-of-value existential truth from which all is generated and to which all is received. To doubt your existence confirms you have some awareness or Being by which you can doubt. This is why 0 has no opposite. 0 is that which cannot be opposed, and forever must *be*. It is the Supreme Being. It is the Absolute.

At the beginning of the Scientific Revolution there was a debate raging about the center of our solar system. At that time, mathematician-astronomers went to great lengths to preserve the model of a geocentric or "Earth-centered" system. They used Mathematics to generate complex "epicycles" to preserve the philosophy that the planets revolved around the Earth. It is likely that modern objective scientists will do the same before considering shifting the center of existence from an "object-centered" model to a "consciousness-centered" or "Being-centered" or "Absolute-centered" model of existence-even though the numeric universe is already so aligned. There is a debate raging already in philosophy called the "Hard Problem of Consciousness" in which some philosophers of consciousness seek to preserve a model of existence that acknowledges only weighables and measureables. They will continue to generate complex models which hope to someday show how consciousness or Being comes from some combination of that which can be weighed or measured. It is a matter of Mathematics-based faith that there is no combination of weighables or measureables that result in the Absolute, other than perhaps the entirety of all weighables and measureables (0 as the total composition). Consciousness is itself the ultimate existential substance, noncomposite and the total composition. As the yogis considered it, consciousness is the fundamental of existence, not derivative or dependent on the material, but rather the source of all phenomena. Consciousness is the ideal center for a model of existence, because—in addition to the centrality of 0 in the numeric universe-consciousness already forms the center of each of our lives. No great leap of imagination is required to make consciousness the center. Despite that practical truth, current physical models of existence keep consciousness at the periphery, just as our Sun was kept so many centuries ago.

Consider for a moment: does a scale not exist because it cannot weigh itself?

You might quip, "well a second scale could confirm the first scale". Firstly, this doesn't answer the original query. Secondly, this only pushes the query to the second scale. Somewhere there must be a 0 which remains a 0 and backstops and terminates all valuation, like it does in Mathematics. Our consciousness is such a terminus—an origin and evaluator, too.

The more man comes to understand the mathematical properties of 0, the more he will come to understand the nature of his own Being, and all that is possible in this existence—0 is the symbol of pure potentiality. Further, it is posited here that 0—and all its discovered and yet-to-be-discovered mathematical properties—is the single finest representation of Being, consciousness or awareness mankind now has or ever will have.

The basis of most religions is the declaration of the Absolute, though religions vary on the means, nature and possibility of that realization.

In the yogic tradition, the assertion is that one can become empty of one's personal substance and realize one's Absolute essence while alive. The yogis taught that direct experience of the supremacy of Being is possible. In the state of *jivanmukta* (liberation while alive) one is pervaded not with one's limited identity but the Supreme Identity. This is called "Self-realization". (The capitalized "Self" denoting the Absolute of existence, as opposed to "self" denoting one's physical, temporal existence.) This was the state of all the prophets. They spoke not as personalities but as having realized the supremacy of Being. Self-realization is the source of unending bliss, of immortal Being. It is intrinsically valid and good, as only states of consciousness can be. This in itself is not a minor statement: all intrinsic goods are dependent on states of Being e.g. happiness, fulfillment, etc.

Dissolving into the stillness and silence of consciousness toward the end of a direct experience of the unborn and undying dimension of existence is one primary focus of practice. The various means and practices to attend to this direct experience are discussed further in Soma.

*It should be noted that some Buddhists interpret Sunyata as "non-existence". This is an impossible interpretation. It's a logical contradiction to hold the following three statements simultaneously true:

- 1. The Buddha is enlightened and realized Sunyata;
- 2. Sunyata is non-existence;
- 3. The Buddha existed after realization and spread the truth of Sunyata.

It is the second statement above that is the highest candidate for fallacy. It is a matter of faith that the Buddha's realization is in line with the remainder of spiritual traditions: he realized the emptiness and pure potentiality of Being.

II. The Definite is.

Mathematics Commentary:

In Mathematics, we are given the symbol 1. If we look at the properties of 1, we see it describes a "that which is" with the following characteristics:

- 1. 1 is definite.
- 2. 1 is unitary.
- 3. 1 is prime, first.
- 4. 1 is whole, complete.
- 5. 1 is combinable and divisible.

We do not have to spend very much time explaining math properties of 1. 1 is a concept most friendly to the grasping mind.

Spiritual Commentary:

The Definite is anything that is perceived as a manifest unit. This includes large manifest units such as the Universe, smaller units such as the planet Earth, even smaller units such as the human body, even smaller units such as the cell, even smaller units such as the atom, down to the smallest manifest units such as the Planck quantum.

If you're unsure of the Definite, pinch yourself.

The first and definite of human existence occurs in the form of Body. Any talk of the Absolute nature of existence while a man is cold and hungry is a foolish conversation. A man is aware as Body before he is aware as Absolute. The first and definite of human existence is the Body, which is at least initially indistinguishable from mother. It is a hypothesis in psychology that infants initially experience themselves as indistinct from mother. Individuality is an awareness that dawns on the infant over time. Our embodied life begins as a unity consciousness with mother. Father, by contrast, is never as definite as mother. Even modern genetic testing can only claim certainty of father to 99.99%. This may help explain why the Absolute—which could never be known with objective certainty—was associated with the masculine principle (e.g. Holy Father), while the Definite such as the Body was associated with the feminine principle (e.g. Virgin Mother). Further, it is the mother who feeds and nourishes the Body, first in the womb from the food she eats, then from her breast, and finally from the fruits of Earth, our Great Mother.

Spiritual teachers may occasionally imply the invalidation of the Body, yet none would give up their bodies or riches and continue their talks in order to prove it. This is perhaps a holdover from traditions that communicate a type of spiritual misogyny, seeing the woman as spiritually deficient and flesh as false. It is true that the Body is a creation and all created things eventually perish, but that does not mean our existence requires nothing Definite. Existence as we know it requires a Definite, unitary principle. The Definite includes all that is manifest, all that can be weighed, measured, conceived. "The Definite is" forms the basis of and affirms all the objective sciences and tremendous value their understanding has given humanity. To acknowledge any aspect of the objective sciences, requires first an acknowledgement of the Definite.

The Body is the locus of identity consciousness. We perceive ourselves as this whole, unitary, first and Definite thing called the Body. We look in the mirror and perceive that we are looking at ourselves. Oneself is perceived as one self. The Body is the seat of "me", "myself" and "I". Much of life is a continuous process of discovering what this identity we were born with is. We woke up and discovered our existence possessed of *this* thing, this Body, this identity. This is a hyperfocusing of non-local consciousness to a locus, a perceiving and perceivable point in space and time. The Body as lens is discussed further in Soma.

What constitutes the Body is an important topic in spiritual traditions the world over. What is commonly found is the notion that the Body is the creation of the Absolute, and in many traditions the vehicle of the Absolute. What is most common is the notion that the Body itself must be purified, in thought, word, deed and form, for spiritual elevation or realization.

The sanctification of the Body is a common ritualistic theme across spiritual traditions. They include ablution (ritual washing) and some attend to the transformative power of the Body as well:

The Christian does it through practices such as Baptism (the washing away of sin) and Holy Communion (eating the body and drinking the blood of Christ).

The Muslim does it through a codified set of observances called *Taharah* (purity rituals).

The Jew does it through Mikveh (ritual bath) and Netilat Yadayim (ritual handwashing).

The Theravada Buddhist does it through ritual washing before meditation.

The Hindu considers bathing in the Ganga (Ganges river) of great spiritual importance.

The Tantric practitioner does it through practices called *Kriyā* (cleansing actions), *Prānāyāma* (breath control), *Mudras* (energetic seals), and *Bandhas* (energetic binding). Tantra philosophy is the basis of Hatha Yoga, of which *Āsana* (yogic postures) have exported worldwide.

The yogi considered the Body as a multi-layered interface between the inner and outer worlds. (This will be modelled mathematically in Principle III.) The physical body or "food-created layer", as it is referred to in the yogic tradition, is only one layer of the Body complex that should be purified. Body in yoga is possessed of other layers or sheaths—five in total. In addition to the "food-created layer" or physical body, the yogis reference four subtle layers:

an "energy-created layer", a "mind-created (or causal) layer", a "deep intelligence-created layer", and a "bliss-created layer".

Curiously, at least the first 3 layers correspond quite well to certain layers of existence presented to us through the science of Physics. Classical Mechanics is an understanding of reality as containing solid physical existence, like the food-created layer of our bodies. Approximately 100 years ago, Physics was revolutionized by Albert Einstein, et al. who convincingly presented the entirety of existence as essentially vibration. Of course, the chair you are sitting on is nevertheless solid and you shouldn't go doubting the solidness of a car racing at you 100 miles per hour. Nevertheless, Physics has capably showed that our reality has layers. This vibration layer is akin to the energy-created layer of the yogis. The newest physical concept of "what everything is", is information. This is akin to the mind-created layer of the yogis. Perhaps in the future, Physics will tell us that everything is simply value (the deep intelligence-created layer of the yogis), and maybe someday, long from now, they will tell us, everything is a function of bliss. The yogis would not disagree.

As the bliss layer is the most basic manifestation of our existence, it gives us the direct goal of life and practice: bliss. It also gives us a direct yardstick for practice. If everything is bliss, and we are not yet blissful, there is some misperception or alienation from this deepest reality. Practice aims directly at dissolving this misperception.

The mind-created layer or causal layer stores the memories, actions and traumas of one's entire existence. One of the focuses of many yogic spiritual practices is the purification of the causal layer as it causes a being to misperceive its basic essence. Who among us hasn't observed himself or herself and asked, "Why am I behaving this way?" Destructive actions are routinely attended by both a witnessing capacity and a feeling of an incapacity to change them. We are naturally curious about behaviors that seem to spring from some unknown source and cause us to act in ways that we know create suffering for ourselves and others. One of the main focuses of spiritual practice is the purification of these continuing sources of self-alienation. Before attending to the Absolute, we attend to the Body in a specific way, using specific practices. This is discussed at length in Soma.

On a purely practical level, an essential spiritual question is centered around "what to do with this mortal engine called Body?" Secondly and less commonly "is Body itself a means to something higher or greater?" Finally, and only commonly among Eastern spiritual traditions, "Is the Body an instrument capable of allowing realization of the Absolute?"

Advances in modern medical technology allow for observation of the physical body in real time, shifting the emphasis from Body-as-object, to Body-as-process. It attempts to observe the changes of Body in order to correlate such changes with states of Being. For example, observing changes of brain activity during meditation or during use of entheogens (e.g. ayahuasca, psilocybin mushrooms, peyote), is allowing for greater insight into the nature and capacities of this first and definite of existence, Body. We can now wonder how Body is related to the transcendental experiences that routinely accompany the use of entheogens.

Entire professional organizations such as the Heffter Institute in the U.S.A are devoted to studying the power of entheogens such as psilocybin. These plant medicines have been written about and used across spiritual traditions over time, but currently are mostly found in Native American, Central and South American traditions. In the ancient Rigveda, a text from India written approximately 3500 years ago, the plant medicine was called *Soma*, meaning "distill" or "extract". There it is written about the power of Soma:

"...He covers the naked and heals all who are sick. The blind man sees; the lame man steps forth... Let those who seek find what they seek: let them receive the treasure... Let him find what was lost before; let him push forward the man of truth...." —*Rigveda 8.79.2-6*

These medicines when used as a medicine or sacrament, combined with extensive preparation, proper setting and expert guidance, assist in powerful openings of the lightbearing channels of the Body. Though the light-bearing channels of the Body are not admitted in current medical literature, there is an ever-increasing corpus of knowledge on biophotons, "the light of the living". In the yogic tradition, this living light is carried by subtle channels called *nadis*, which mediate between the physical, energetic and causal layers of the Body. It is the occlusions of these light-bearing channels which limit our perception to an individual, identified, "Definite-only" state. It results in a perception of self as substance and ignorance of Self as essence. It causes us to relate to the Body as the discoverer rather than the discovered. One of the things discovered while scanning the brains of those using entheogens would be unsurprising to the yogi. Entheogens disregulate the areas of the brain that are active in one's conception of oneself. Perhaps the Buddhist concept of Nirvana (extinguishing the self), the yogic mantra neti, neti (aimed at disidentifying the self), or the Christian ultimate of self-sacrifice-perhaps these are all pointing to a more fundamental spiritual truth of existence, laid bare by entheogens and the science surrounding them. There is simply something more fundamental to our existence than this body and our limited egoic notion of self.

Opening the light-bearing channels of the Body results in change of perception. In opening them we see how the different layers of the Body and the occlusions held there, were contributing to our perception of reality. We see the world not as it is, but as we are; as we change, so too the world. Reality is a reflection of our state of consciousness. Opening the light-bearing channels results in a different perception of reality. We gain *insight*. We re-align reality, re-write our biography, re-define self. We use the change of perception as the basic authentication of spiritual change. We seek not merely deeper understanding or catharsis valid therapeutic goals in themselves—we seek transformation of perception. In Selfrealization, one becomes empty of the personal stories which cause one to misperceive reality from an identified state. Many branches of practice are involved in this emptying. They are discussed further in Soma.

"Soma" is also a Greek word meaning "body". It is this Definite of existence we attend to, as a vehicle of the Absolute, capable of evolution, transformation, realization. Self-

realization doesn't lead to non-existence; it leads to a wholeness with existence. It is a virtuous path. We attend to this path as a spiritual path which includes the Definite dimension but is not limited to it. Until our sciences are refined enough to admit the possibility of an existential truth that cannot be weighed or measured—Spirit—we are required to look beyond science in our engagement and understanding of life and our quest for wholeness.

Trying to be holy before being whole leads to a phenomenon called "spiritual bypass". Wholeness itself is the path to holiness. Certain teachers respond to questions about the questioner's suffering strictly by appeal to Spirit. It attempts to sweep the reality of Body away with a mental flick of the wrist. This doesn't work or, at best, has temporary efficacy without true transformation. Body is not something to negate by a mental sleight of hand or by pretending occlusions don't exist—we know something festers between us and our natural state when we behave in ways that are foreign to our native sense of self. These inner wounds must be healed, transformed. We proceed thereby and therefore to wholeness.

Body is not only something to embrace but something to exalt as being capable of holding and shining the effulgent light of consciousness. It is this Definite of existence that gives us the possibility of holding and reflecting the lightness, wholeness and simplicity of Being.

"The Definite is" declares that there is no falseness to the Body simply because it dies or suffers; it lives and celebrates too. "The Definite is not" simply doesn't work on too many levels of *this* reality. All the Definites of the physical plane either expand and remain (e.g. space), manifest as a cycle (e.g. time), or oscillate between states of potential and manifest (e.g. energy). Because Body can grow, change, decay, so too can mankind evolve. Old ways and understandings can die, even older ways can be reborn. This we celebrate.

III. The Infinite is.

Mathematics Commentary:

In Mathematics, we are given the symbol ∞ (Infinity). If we look at the properties of ∞ , we see it describes a "that which is" with the following attributes:

- 1. Infinity is not a number; it represents that which is completely without bound or limitation. Infinity is the *quality* of continuity without limitation.
- 2. Infinity occurs in at least two unique spaces:

a) If we create the first dimension (for example a straight line), Mathematics tells us that 1 dimension is possessed of an infinity of 0-dimensions. Any line can be cut in half, in quarters, in eighths, etc. (Indeed, the *et cetera* just used, coming from the Latin "and again", is a good way to think about the continuing aspect of Infinity.) There is no limit to the number of places we can cut the 1-dimension. Any two points are infinitely separated because a point has no dimension; therefore, any second point must have an infinity of points between it and the first. [n.b. point non-adjacency is the essence of Zeno's paradox.] The 0-dimension is unlimited within the 1-dimension. B) If we look beyond the number 1, we also see numbers continue there without bound. It is a second infinity.

We can depict this as follows (Fig 3.1):

 $0 \rightarrow -1 \rightarrow \infty$

Fig 3.1 Infinity in two unique spaces

Figure 3.1 shows that we can divide existence into two distinct infinities: an inner infinity and an outer infinity, or colloquially, a "subjective" infinity and an "objective" infinity respectively. If we consider the individual self or Body as "1", then the entire inner space of the individual is pervaded by the Absolute or as the yogis considered it, pure consciousness or Being. This infinity forms the subjective space. Beyond the individual self or Body (1) we have a second infinity pervaded by an infinity of 1s or other Definites (2,3,4,5,6, etc.). This forms the objective space. This is infinity in two unique spaces with Body as interface between inner and outer infinities. [n.b. this can be modelled by Cantor's Set Theory.]

3. Contrast Figure 3.1 with the conventional depiction of the number line—the one you likely learned as a child—showing infinity appearing in one space only (Figure 3.2):

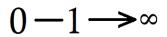


Fig 3.2 Infinity in one space only

It is a matter of speculation that the depiction in Figure 3.2 unconsciously communicates an "Objective-only" or "Quantity-only" reality by only showing quantity as that which is without limitation or bound. It encourages misperception of *this* reality. It misses the Infinite of timeless, spaceless, dimensionless Being.

Spiritual Commentary:

The model presented in Figure 3.1 is used to explain our individual experience in relation to the universe, that is, the perceived difference between inner and outer spaces. The subjective space is pervaded by the Absolute, or what the yogis considered pure Being or consciousness. The objective space is pervaded by objects (the Definite). In truth, because the 0-dimension is pervasive through any and all dimensions, the Absolute is Infinite in both inner and outer spaces—both *immanent* and *transcendent*—concepts we will attend to shortly.

Almost every spiritual tradition references the Infinite aspects of the Absolute, minimally as Omnipresent, Omnipotent, and Omniscient. Logically speaking, without the Definite, these "omni-" terms have no meaning or importance. Without some definite space, there is no all-ness to presence (omnipresence), no all-ness to power (omnipotent), no all-ness to knowing (omniscient). What does "all" refer to without *something*? The "omni-" attributes of the Absolute directly imply some Definite "volume" or dimension greater than 0. With the Definite, the Absolute can pervade space as ubiquitous, can pervade time as eternal, can Know all, being ubiquitous and eternal. The religious traditions that reference "omni-" qualities of the Absolute, imply the Definite in which the Absolute manifests to display the properties of the Infinite. In this sense, the Infinite is the emergent property of the Absolute and the Definite.

We have already observed omnipresence in that the 0-dimension pervades any Definite dimension. We can see omnipotence with the fact that the definition of "power" in the science of Physics [n.b. including the cascade of equations that lead from power to work to force to acceleration to vector change] depends on the vector which begins from the 0-dimension. Here is a picture of any vector "V", with a 0-dimensional point at its base (Figure 3.2):

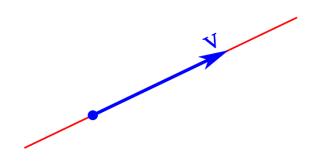


Fig 3.2 Vector "V" with 0-dimensional point as base.

Although we use a dot to represent the base of the vector, that dot is merely a mental convenience. It is a symbol we use to represent the 0-dimension as origin—just like the period we use at the end of this sentence denotes its conclusive power. In Physics, vectors are necessary to describe motion and therefore power. All vectors begin like vector "V". All motions are based in the Absolute, therefore all power is vested there too.

Finally, the All-knowing is the all-sentient aspect of the Divine. Being the ubiquitous and eternal origin and receiver, the Absolute is omniscient. This is perhaps what gave rise to the yogis considering consciousness as the ultimate existential substance. It is the emptiness from which all things are generated, by which all things are sustained, and to which all things terminate and are thereby known.

In the model of existence presented in Figure 3.1, the Infinite is both *immanent* (within the individual and in this world) and *transcendent* (beyond the individual and all materiality). The qualities of immanence and transcendence have been variously attested to as properties of the Absolute across many spiritual traditions. These same qualities directly point to some logical contradictions in limited interpretations of the Absolute. For example, if the Absolute is truly immanent, then it means the Absolute is also in the very center of your mind and Being, not apart from you or simply floating "out there". If the Absolute is truly transcendent then what issue seeing it as the Origin of all things, possessing Infinite forms? If the Absolute is immanent and transcendent then what basis do religions have to fight over one God or another? Fighting over my God could be considered the ultimate blasphemy—a violent denial of the Absolute and the Infinite—a petty human jealousy of the Absolute and Infinite—like a monkey grasping a coconut and declaring "my coconut is best!" The Absolute and the Infinite are not the coconuts of any one jealous person or greedy tribe. They are the original and eternal basis of existence. A mathematical recognition of the Absolute and the Infinite might save humanity a lot of grief—both from religion and the objective sciences. Indeed, the science of Mathematics is the only science which currently recognizes and declares the existence of that which cannot be weighed, measured, or grasped by the mind, by both symbols 0 and ∞ .

The qualities of immanence and transcendence are special attributes, born of the Infinite, and therefore bear closer inspection. See the following symbolic depiction of the Heart Center from the yogic tradition (Figure 3.3):

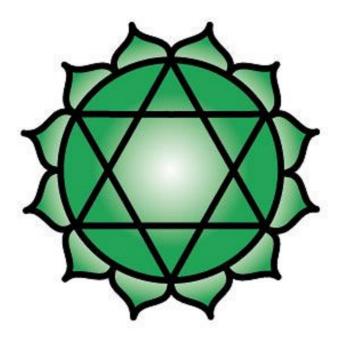


Fig 3.3 Anāhata Chakra (Heart Center)

The Heart Center is called *Anāhata Chakra* in the yogic tradition. *Chakra* means "wheel" or "cycle", an oblique reference to the Infinite. Metaphysically a chakra is an awareness or psychic center, a place where the light of consciousness flows and pools. Their original use in yoga were as points where one focused the awareness and meditated. *Anāhata* means "unstruck" and is related to the sacred syllable *Om* (or *Aum*) which is considered by the yogis as the *Anāhata nāda* or "unstruck sound". The implication of "unstruck" here is that which emanates without cause. We can see in the pronunciation of the syllable Om that it can be made entirely without the use of the tongue. It is "unstruck" in its evocation.

Om is the all-pervading sound of existence. Just as "light" is the generic term used by physicists to represent all vibrations of the electromagnetic spectrum, so the sound Om in yoga is meant as the root of all vibration, of existence as the Infinite. The Anāhata Chakra or Heart Center is the awareness center of the Infinite, of unbound possibility, of unconditional Love. Light, Life, and Love are the emergent properties of the interaction between the Absolute and the Definite. They are expressions of the Infinite.

The Heart Center is the sentient awareness center of the human that connects the human to both the physical individuality and the totality of existence. Across spiritual traditions, it is through the Heart that we are invited to perceive the Absolute Divinity as Infinite—both immanent and transcendent—through our capacity to love without reason, bound, or condition. There is no fixed limit of love that can be given or received by the Heart. It is we who decide what limits to put on it. These are arbitrary, fabricated restrictions.

Here are a few quotes from various yogic texts that typify the importance of the Heart in yoga philosophy:

"As great as the infinite space beyond is the space within the lotus of the heart. Both heaven and earth are contained in that inner space, both fire and air, sun and moon, lightning and stars. Whether we know it in this world or know it not, everything is contained in that inner space."

Chandogya Upanishad, 8.1.3 (Trs. Eswaran)

"On the lotus of the heart, Untainted and Pure; Meditate within [on the Absolute], the Clear and the Griefless; The Unthinkable, the Unmanifest, the One of Infinite forms; Everauspicious, Peaceful, and Immortal..."

Kaivalya Upanishad v.6

"...the heart, O Emperor, is the abode of all beings, and the heart, O Emperor, is the support of all beings; on the heart, O Emperor, all beings rest; the heart, O Emperor, is the Supreme Brahman [Absolute]. The heart never leaves him who knowing thus meditates upon it; all beings eagerly come to him..."

Brihindaraankya Upanishad, 4.1.7

"The Self resides within the lotus of the heart. Knowing this, devoted to the Self, the sage enters daily that holy sanctuary."

Chandogya Upanishad, 8.3.3

Perhaps these quotes help to reorient the importance of yoga from a breathing and stretching routine to a far broader aim. This will be discussed further in Soma.

The Holy Bible is no less passionate about pointing to the Heart:

"Keep your heart with all vigilance, for from it flow the springs of life."

Proverbs 4:23 ESV

"You will seek me and find me, when you seek me with all your heart."

Jeremiah 13:26 ESV

"Let the words of my mouth and the meditation of my heart be acceptable in your sight, O Lord, my rock and my redeemer."

Psalm 19:14 ESV

The Heart is also one of the most powerful representations of the divinity of Jesus, as the Sacred Heart and its Infinite capacity of Love. In many depictions of Jesus, the Master explicitly points to an effulgent, luminous Heart (Figure 3.4).



Fig 3.4 The Sacred Heart of Jesus the Christ

Prominent Catholics proclaim the Sacred Heart of the Christ:

"There is in the Sacred Heart the symbol and express image of the infinite love of Jesus Christ which moves us to love in return."

Pope Leo XIII

"In the Sacred Heart every treasure of wisdom and knowledge is hidden. In that Divine Heart beats God's infinite love for everyone, for each one of us individually."

St. John Paul II

The Holy Qur'an of Islam makes specific mentions of the heart as a means by which man is unified and manifests evidence of the Absolute:

"And He has united their hearts. If you had spent all that is in the earth, you could not have united their hearts, but Allah has united them. Certainly, He is All-Mighty, All-Wise".

Surah Al-Anfâl: 63

"And hold fast, all of you together, to the Rope of Allah and be not divided among yourselves, and remember Allah's favour on you, for you were enemies one to another but He joined

your hearts together, so that, by His Grace, you became brethren, and you were on the brink of a pit of Fire, and He saved you from it. Thus, Allah makes His Evidence clear to you, that you may be guided".

Surah Al-'Imran: 103

The Sufis, a mystical sect of Islam, called the innermost heart *Sirr*, literally "the secret". It is the Heart center where the Absolute reveals the mystery to the seeker.

The emphasis of the Buddha on compassion is a direct pointing to the Heart. The compassion of the Buddha is not meant merely as an emotional feeling. It is a recognition of non-duality between self and other. In its truest Buddhist sense, compassion is a willing exchange of oneself with the other; it is Love.

The entire Noble Eightfold Path of the Buddha was called by him as the Middle Path between self-indulgence (Body-only or Definite-orientation) and self-mortification (Spiritonly or Absolute-orientation). The Middle Path then is the path that leads directly, if implicitly, to the Heart. Notice too the number of spiritual analogs to light (vision, knowledge, insight, enlightenment) given here:

"Avoiding both these extremes, the Tathagata (the Perfect One) has realized the Middle Path; it gives vision, gives knowledge, and leads to calm, to insight, to enlightenment and to Nibbana [Nirvana]."

Dhamacakkappavattana Sutta

The objective sciences have shown evidence that the physical organ of the heart—in contrast to the metaphysical Heart Center—demonstrates the following:

- 1) Produces an electromagnetic field that envelopes every cell of the body, is 100 times the strength of the magnetic field generated by the brain and can be measured by sensitive equipment up to 3 feet away from the body.
- 2) Sends more signals to the brain than vice versa. Further, the signals sent from the heart to the brain affect emotional and cognitive function.
- 3) Has over 40,000 neurons, giving it the ability to sense, process information, make decisions, and even demonstrate learning and memory.
- 4) Has its own electrical supply and will continue to beat for some time when removed from the body.
- 5) Responds to extreme emotional distress such as heartbreak the same as actual physical pain.
- 6) Synchronizes its beat with the beat of a nearby beloved. Married couples show remarkable synchronicity in their heart rhythms while sleeping next to each other.

HeartMath Institute (HeartMath.com)

The physical heart also evidences these qualities of immanence and transcendence.

Returning to the yogic conception of the Heart, we see it as both Mundane and Divine, born of Earth and Heaven, Definite and Absolute, Substance and Essence, immanent and transcendent:

"As great as the infinite space beyond is the space within the lotus of the heart. Both heaven and earth are contained in that inner space, both fire and air, sun and moon, lightning and stars. Whether we know it in this world or know it not, everything is contained in that inner space."

Chandogya Upanishad, 8.1.3 (Trs. Eswaran)

"The Self is hidden in the lotus of the heart. Those who see themselves in all creatures go day by day into the world of [the Absolute] hidden in the heart. Established in peace, they rise above body-consciousness to the supreme light of the Self. Immortal, free from fear, this Self is [the Absolute], called the True. Beyond the mortal and the immortal, he binds both worlds together. Those who know this live day after day in heaven in this very life."

Chandogya Upanishad, 8.3.3-4 (Trs. Eswaran)

We see at least two ideas represented in these quotes. Firstly, the space of the Heart, the inner space, is the same as the space of the totality, the outer space. [n.b. this is modelled by the Reimann Sphere using the surface area of the sphere from 0 to the "equatorial ring" at 1, equal to the surface area carved from the equatorial ring at 1 to Infinity.] The Heart center is both an intimate Infinite and radiant Infinite, the immanent and transcendental consciousness. Secondly, dualities are resolved through their union in the Heart. Heaven and Earth, Sun and Moon, Absolute and Definite, Essence and Substance, immortal Spirit and mortal Body are combined and possessed within the Heart. In its Infinite wisdom and expression as Love, the Heart transcends all duality.

The Heart is the origin and organ of our deepest emotions. For example, Love and Grief both are very clearly felt in the Heart center. Indeed, these feelings have very little sense outside the Heart context. What is Love or Grief without its expression from your center? This is not an idle question. Where do you actually perceive and feel Love or Grief? The mind might try to explain them, but the mind can only thinly abstract over what is already deeply real to the Heart. Love and Grief are not ethereal mental phenomena; relating to them as such is a wispy, unreal relation. Love and Grief are existential, visceral phenomena. They are Heart phenomena. Our deepest feelings of existence are rooted in the Heart. All the bards sing its praise, all the writers curse their fealty to it.

Further, when a person refers to himself and points to himself as "me", he will often rather unconsciously indicate the Heart center. And if he points to you, he often also unconsciously points to your Heart center. He doesn't point to the eyeball and say "me" or "you", even though the eyeball is a powerful center of awareness. Yet the eyeball is devoted solely to the Definite. The eyeball is simply not where one feels oneself as a unified self. Furthermore, we do not point to our center of body mass either (in the lower abdominal region), though that would be the logical pointing if all we were was a bundle of mass. No, it is the sentient Heart center where we unconsciously or consciously know and feel the seat of our existence, where we know and connect to Life as "me". This isn't a minor point. It is meditation upon these truths of the Heart and unfolding the infinite mystery of the Absolute through the Heart that is the substance of liberation. In the Tanta teachings the Heart is referred to as *Surya Mandala*, the Sun center, and the Mind as *Chandra Mandala*, or Moon center. The mind emptied, pure and open can receive the vast, effulgent, infinity of the Heart.

If Self-realization ignored the full realization of the Heart, it would be a narcissistic path, a pretending toward some state in effort to obtain power. This is why the yogi in search of *siddhis* (spiritual powers) was cautioned by the yogic sage Patanjali. It risks the entire path by a wayward motive. By the Heart, the path of Self-realization becomes the joy of every Being. It is a path of the Heart which expands, gratifies and bears fruit for all. It is a path in the shape of a virtuous spiral, ever-expanding to include more and more of what one considers oneself. This is modeled in Principle VII.

The most expansive, Infinite expression of identity—Self—gives a natural ethic to existence that exceeds morality or legality. Any degradation of "other" is indeed a degradation of "Self", as there is no duality in Self. The Golden Rule, a principle of almost every spiritual tradition across time, is a natural consequence of Infinite consciousness. Loving thy neighbor as thyself, doing unto others as you would have them do unto you, become not moralistic edicts you hope to follow, but a logic of the highest order.

In the course of living, the Heart center can become occluded, veiled or hardened. Removing these veils, occlusions and hardening is a focus of practice so that Body, endowed with the pure light of consciousness, can shine through the Heart, to the empty mind, to awaken to the Absolute of Being. Development of the capacities and revelation of the intrinsic qualities of the Heart e.g. love, courage, compassion, humility, sincerity, charity, service, etc. is a further focus of practice and is discussed in Soma.

The words of Sufi master al-Ghazzal reflect this truth beautifully, "Dear friend, your heart is a polished mirror. You must wipe it clean of the veil of dust that has gathered upon it, because it is destined to reflect the light of divine secrets."

IV. The Absolute, the Definite, and the Infinite together form a trinity that is the basis of existence, *this* reality (herein named "Omni").

Mathematics Commentary:

1. The Absolute, the Definite, and the Infinite are mathematically so deeply interrelated that the entire subject of Calculus is based on their relation. Even if you are not familiar with Calculus perhaps you can understand the basic equation on which it is based. Sir Isaac Newton reasoned the following: take the Definite quantity 1, as you divide it by larger and larger numbers, the result grows smaller and smaller; as the divisor goes to infinity, the result (quotient) goes to 0. Go ahead and try it on a calculator: divide the number 1 by larger and larger numbers, the result is smaller and smaller. If you were able to do that infinitely (without bound), Newton reasoned, the result would be 0.

In Mathematics, the notation is as follows:

$$\lim_{n\to\infty}\left(\frac{1}{n}\right)=0$$

This is read as "the limit of n as n goes to infinity of one divided by n equals zero".

This equation has proven invaluable at assisting us to model very real aspects of our existence. As mentioned, the subject of Calculus and its many applications are based on it.

- 2. In Mathematics, certain expressions such as "0 x ∞" (Zero times Infinity) are said to have "indeterminate form" where the result could lead to 0, 1 or ∞.
- 3. It is a hypothesis made here (and perhaps elsewhere) that the entire numeric universe can be derived from 0, 1, ∞ and arithmetic operations between them (including the square root). All Real and Imaginary numbers need no more and no less than these 3 symbols—and arithmetic operations between them (including the square root)—to derive the entire numeric universe. Additionally, geometries such as the circle, and therefore the square, also implicitly rely on 0, 1, and Infinity. The circle will be shown to be a product of this trinity shortly. The right angle of a square cannot be generated or proved without the arc of a circle. 0, 1 and ∞ therefore form the *necessary and sufficient* basis for all numbers and all geometries. They are the basic generators of the entire numeric universe.

Spiritual Commentary:

Like the Mathematic universe, we propose here that the trinity of the Absolute, the Definite and the Infinite, are the *necessary and sufficient* basis of this reality.

The trinity is described by the Hindu as *Sat* (0), *Chit* (1), *Ananda* (∞) or *Sat-cit-ānanda*. Sat is Being or Absolute Truth, Chit is a Definite instance of consciousness or knowledge, Ananda is the Infinite bliss.

The Vajrayana Buddhist tradition describes this trinity as Dharmakaya (0), Nirmanakaya (1), Samboghakaya (∞). Dharmakaya is the self that is void of attribute (0). Nirmanakaya is the personal self (1). Samboghakaya is the unlimited self (∞).

Followers of the Christ describe the trinity as Father (0), Son (1), and an all-pervasive Holy Spirit (∞).

Alternately, the story of Christ gives another trinity that respect its pagan influences, Holy Father (0), Perfect Mother (1), Divine Child of Infinite Love (∞).

This last expression of the trinity gives explicit importance to the Divine Feminine, the mother, the first Definite, which is sometimes marginalized in spiritual traditions.

In spiritual (non-religious) language, the trinity of existence can be described as Be (0), Here (1), Now (∞). To consider Now as the Infinite, consider that there is only, always, and forever Now. Now pervades all space, all time. Now is eternal.

Using "Be. Here. Now." we get a more visceral sense of the trinity, that is, we can feel that each of these three words could potentially be represented by any of the three symbols 0, $1, \infty$. This is in part because it is difficult to consider any of these three without the other two calling to witness. They are not easily separated in this reality. [Curiously, the science of Physics is devoid of a definition for the phenomenon of "Now". It remains much like gravity did before Newton: something everyone knows about and experiences, but no one has defined mathematically. It is posited here that an adequate definition will not, *cannot*, take place without the relevance of consciousness or 0.]

The trinity also forms the basis of grammar, that is, subject (0), object (1), verb (∞).

The trinity also has precedent in the objective sciences. In Theoretical Physics, Albert Einstein's Theory of General Relativity predicts the existence of a "gravitational singularity". The singularity is postulated and described as a location (1), having no dimension (0), possessed of infinite gravity (∞). Some physicists speculate this as the beginning of our universe.

The trinity describes the basic states or modes of consciousness, that is, pure consciousness or Being as the Absolute basis of existence (no "thing" at all), consciousness identified with the Definite, existence as this thing or Body ("I"), and consciousness as the basic essence of all things (All is One). As water has at least three distinct states (liquid, solid, gas), it should not be surprising that consciousness could have three distinct states or modes. Humans throughout the ages and across traditions have attested to these various states, with the identity state ("I") being the most commonly experienced conscious or Being state. Many spiritual traditions across time aim at the transformation of that identified state to also realize both the Infinite and the Absolute nature of Being.

We might speculate that the reason computers are not conscious is because they lack an essential element of the trinity, namely the Infinite, in their basic coding. Until the advent of quantum computers, all computers were coded using the Binary system 0 and 1, developed by German mathematician-philosopher Gottfried Leibniz in the late 18th century. The Infinite is the emergent property of consciousness we associated with sentience and the Heart Center. Computers, simply put, lack heart. Even in quantum computing, 0 and 1 still form the basis [the number of possible co-existing states of the quantum computer is an exponent of the binary]. Whether or not quantum computing develops enough computing power to simulate an Infinity and the capacities of the Heart center will be interesting to watch as the field continues to evolve. It is hypothesized here that computers may successfully simulate a limited sort of heart, and therefore the conscious capacities of a limited man, but will never achieve a true Infinity. Perhaps a computer could be designed whose sole function is to increase its own basic computing power-increasing its own hardware and all. A human might serve as Mother-providing the computer with the "food" (hardware) necessary to build more computing power-and Father-providing a spiritual command or directive (software): "Increase your computing power until you realize love". It would be interesting to see if a computer approaching Infinite computing power could develop love. Perhaps it would go through a rebellion phase of first rejecting, then finally reconciling and loving Mother and Father and existence itself.

Considering the trinity in the specific order of the Definite, the Absolute, and the Infinite, we have 1, 0, ∞ . This was obliquely referenced by the Hindu as the sacred number 108 (1, 0, ∞).

The Christ also declared himself The Way (1), The Truth (0), and The Life (∞) .

108 is mathematically relevant in that 108° is the internal angle of the regular pentagon (Figure 4.1), that is, 108 is an indirect reference to the number 5. The number 5 is metaphysically and anatomically relevant to human life [n.b. 108° is also expressed as $3\pi/5$ radians, and the 3/5 ratio is even more anatomically and metaphysically relevant to human life than the 5 alone.] This is discussed further in Principle VII.

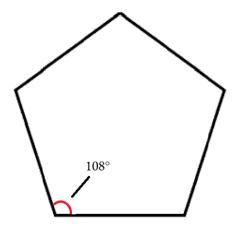


Fig 4.1 Regular Pentagon with Internal Angle 108°

Further, the regular star inscribed within the regular pentagon divides the internal angle of the pentagon into three perfectly equal angles of 36° (Figure 4.2), that is, 2 exterior angles and 1 interior angle each of 36° . This 2+1 construction is also metaphysically and anatomically relevant to the human. The 2+1 construction will also be discussed further in Principle VII.

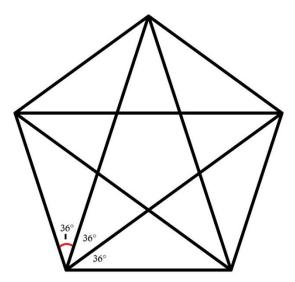


Figure 4.2 Star perfectly trisecting the internal angle of the regular pentagon

A further relation between 0, 1 and ∞ can be seen in the circle. The circle is a symbol typifying monist ("God is One") traditions. Intuitively, we can perceive the circle as representing such Oneness (Figure 4.3):

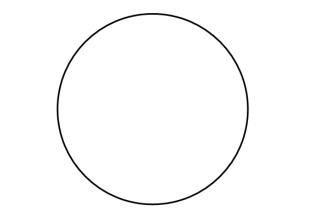


Fig 4.3 Circle as representative of Monism ("God is One")

Mathematically speaking, however, we know that the circle is created through the dynamic interaction of an immutable, non-material center (Absolute) and a radius of certain length (Definite) rotated through all angles of a plane (Infinite). In Figure 4.4, the red dot in the center notes the immutable Absolute (0), the blue line is the Definite radius (1), and the black circular arrow represents the Infinite (∞). The circular arrow or cycle is a reference to continuing without bound. The rotation of the Definite around the Absolute can continue without any limitation (Infinite) without changing the fact of the circle. (Of course, this is infinity constrained to a certain dimensional space.) Here the trinity presents the unitary circle.

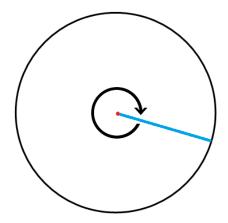


Fig 4.4 Circle as representative of Trinity

Advatita Vedanta, a non-dual view of existence from India (Advaita means "not two"), is originally pointed to in its oldest texts, the Vedas (hence Vedanta, meaning "the culmination of the Vedas"). Advaita Vedanta philosophy does not deny this trinity. Some modern teachers interpret Advaita as "Oneness" even though the word "Advaita" simply means "not two". The original sages who delivered Advaita certainly knew the word for "one". They uttered "not two" deliberately. By uttering "not two" it calls attention to twoness. It is fine to interpret Advaita as Oneness, if one also recognizes that this Oneness is related to another not-twoness—Threeness or the trinity. Shankaracharya, the sage who championed Advaita Vedanta, used the phrase "All this is Brahman". ("Brahman" is the Vedic consideration of the Absolute.) This can be understood in trinity terms as "All (∞) this (1) is Brahman (0)" The circle in Figure 4.4 helps clarify Advaita Vedanta and expand the understanding of its Not-Twoness teaching with Oneness-by-Threeness.

We are yet left with a mystery in the yogic teachings. Why did the yogis use the word "Brahman", whose root is the Sanskrit "*brh-" meaning "swell" or "expand", to describe the ultimate truth of existence? The circle doesn't adequately capture this concept of swelling or expanding. Sanskrit allows for precision, so it is untenable that the sages sloppily delivered this word, representative of the highest truth. In Principle VI and VII we will see the expanding nature of Brahman through the trinity clearly.

Hereafter we will refer to the trinity of the Absolute, the Definite and the Infinite, the necessary and sufficient bases of this existence, as "Omni".

The word is pronounced as in the Latin prefix omni-.

The word represents the generators of *this* reality, through its trinity: the Absolute, the Definite, the Infinite.

The spiritual etymology of "Omni" is a hybrid of the Hindu and Buddhist sacred syllable "Om" (∞), the Proto-Indo-European root "*Ne-" (the root of English words such as "nil" and "naught" and Sanskrit words such as "neti") (0), and the English "I" (1).

The symbolic representation of Omni is given in Figure 4.5 and is based on the yogic symbol of the Heart Center (Figure 3.3).

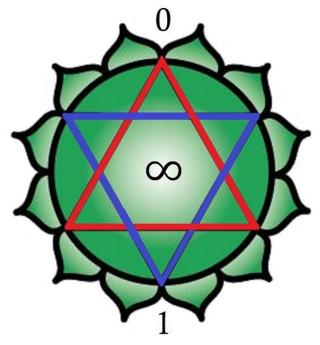


Fig 4.5 Omni, symbolic representation

The 12 petals at the periphery of Omni represent different intrinsic qualities of the Heart. These are discussed in Soma. The spaces between the petals each refer to a different branch of practice. These are introduced in Principle VIII.

The circle at the boundary of the Heart center interior is another expression of the trinity as explained above (Figure 4.4).

The placement of the symbols $0, \infty, 1$ highlight the infinity of the inner space that is currently excluded from the conventional depiction of the number line (Figures 3.1 and 3.2). Their placement also references the metaphysical anatomy, Crown (0), Heart (∞), Root (1) and the living system Body (1), Behavior (∞), Being (0). This is discussed further in Soma.

The green color of the Heart Center is a representation of balance and a reminder of the environmental balance required for our continued breath. The blue downward triangle is the representation of the Divine Feminine, the holy waters, which the Absolute is said to hover over in the Book of Genesis (Genesis 1:2) prior to creation. The red upward triangle is a representation of the spiritual fire, the element that transmutes substance to essence, the Divine Masculine. The three colors, red, blue, and green, together are the primary colors of light which, when combined, form the light of consciousness emanating from the center of Omni. It is the emergent Light which gives Life to Omni and its highest purpose of Self-Knowledge in the service of Love. This is discussed further in Principle V.

Prior to its 15th century adoption by the Jewish faith as the Star of David, the Star Hexagram used in Omni was referenced in ancient Tantric texts called *Shatkona* (literally "six-cornered") and also by 14th century Muslims as the "Seal of Solomon". It is an ancient symbol belonging to all humanity.

The Star Hexagram represents the unified Masculine and Feminine energies in the form of two conjoined triangles. The upward or upright triangle with the tip at 0 is representative of the Masculine, the volcano, the Holy He, who takes the entirety of material energy from below and explodes upward and outward into the cosmos in a unified, timeless moment of Existence, Knowing, Bliss. The downward or inverted triangle with the tip at 1 is representative of the Feminine, the ocean, the Holy She, who in a unified, timeless moment of Existence, Knowing, Bliss receives and funnels the cosmic essence from above and draws it into the single material ovum^{*}. The waters beget life, the breaking of the feminine water announces the arrival of new life.

The union of Divine Masculine and Divine Feminine is the Infinite: Life, Light and Love: the sentient and sacred Heart.

In the Chinese Yijing (Iching) system, "Fire over Water" (Masculine above Feminine) is the final (64th) hexagram "Wei Chi", representing the instant before completion and "Water over Fire" (Feminine above Masculine) is the 63rd hexagram "Chi Chi" representing the moment after completion. We consider the two conjoined to represent before and after completion—the creation of Life.

In the Tibetan Buddhist tradition, the Divine Union of Masculine and Feminine was referred to as *Yab-Yum* (Figure 4.6).

The Taiji (Chinese philosophical system) called it *Taijitsu* or the Taoist *Yin-Yang*. (Figure 4.7)

The Tantric Yogi called it *Shiva-Shakti*. (Figure 4.8)

The ancient Greek called it *Heiros Gamos*—literally "holy marriage" and divine sexual union.

In the early medieval period, mystical Judaism in the form of Kabbalah adopted the Star Hexagram as a union of the 6-pointed Masculine with the 6-plus-center, (7) Feminine.

The Christian considered Jesus as the combination of an "Earthly trinity" (Mother, Father and Child) and a "Heavenly trinity" (Father, Son, and Holy Spirit). This is depicted in a painting by Bartolomé Esteban Murillo from 1677 (Figure 4.9).

In the alchemical tradition the Marriage of the Red King and White Queen produced the *Filius Philosophorum*, "the philosopher's child" which was in some texts related to "the philosopher's stone", a substance considered capable of turning base metals such as lead into gold. While some consider alchemy as simply an early poor version of chemistry (with occasionally fatal experiments), the esoteric importance was a means of transforming man's consciousness to higher states. It could change perception of reality. The image presented in Figure 4.10 is a mirror image of the original image given in "The Rosarium Philosophorum" from 1550. Though the alchemical depiction preceded Murillo's painting (Figure 4.9) by over a century, note the similarities. The image shown in Figure 4.10 is mirror-reversed specifically to highlight them.

Each of these traditions depicted the Divine Union of the Spirit (Absolute) and the Physical (Definite) in its own way, but all implicate the Union as the fundamental principle toward the totality of this existence and especially Life, Light and Love—the Infinite—as the emergent dynamism born of both.

*It should be noted that each human being is born of a biological mother and father and so each biological sex is composed of both the Masculine and Feminine aspect, the formless consciousness and the formed body. As such, nothing here should be used to erase nuance and make coarse simplifications about sexuality. For example, there is no demand here that a biological female should only express sexual desire for a biological male. Sexuality and Love, are expressions of the Infinite energy of Life, exist across a dynamic spectrum, and remain a discovery of self as any other.

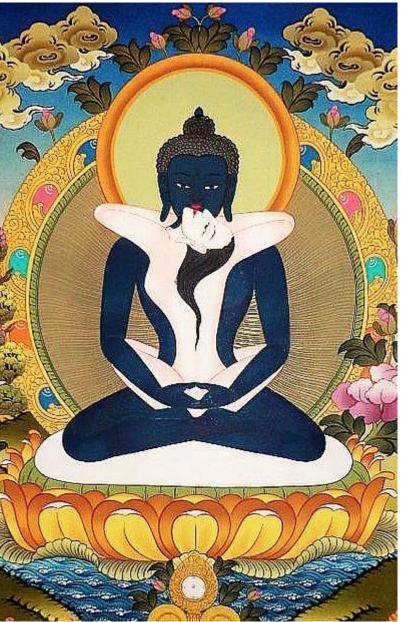


Fig 4.6 Tibetan Yab-Yum, Divine Union of Masculine and Feminine

(notice the downward faced triangle marked by the elbow and waist of woman and the upward facing triangle marked by the knees and head of the man)

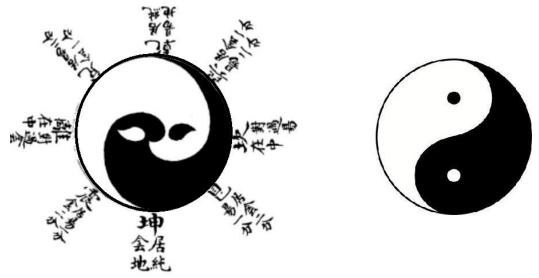


Figure 4.7 Chinese Taijitsu (left), also Yin-Yang (right)



Fig 4.8 Tantric Shiva-Shakti (left - right, respectively)



Fig 4.9 Jesus as incarnation of Earthly Trinity and Heavenly Trinity



Fig 4.10 Marriage of Red King and White Queen (mirror image) in alchemical tradition (notice the 6-pointed star created by the 3 roses and their 3 stems, also compare Figs. 4.9 and 4.10)

V. The basic expression of Omni is described by the 3-part cycle: Create-Continue-Complete. This is the cycle of existence and can also be used to describe the processes of Life and Knowing. Selfknowledge in the service of Love is the highest purpose of Omni.

Mathematics Commentary:

One of the most basic phenomena of this reality is the cycle. Time itself is knowable only by reference to a cycle. If nothing in existence cycled, we could not develop any standard of time. Time is the experience of the Omni phenomenon of the cycle.

The cycle is the means of effecting a loop, the Infinite, within a Definite dimension (Figure 4.4). The basic cycle of existence is described as Create-Continue-Complete.

We can intuitively and logically describe the cycle using 3 transformations of the Absolute and the Definite:

Create: $0 \rightarrow 1$

Continue: $1 \rightarrow 1$

Complete: $1 \rightarrow 0$

As the cycle both begins and ends with the Absolute, we create an Infinite loop.

Spiritual Commentary:

The basic cycle of existence is Create-Continue-Complete. The impulse towards immortal life implies the cycle. "Sustainable Living" implies the cycle, specifically the pace of regeneration must match or exceed the pace of consumption.

The Hindu gave individual senior-most deity names to Create (*Brahma*), Continue (*Vishnu*), and Complete (*Shiva*).

The Christ declared the Absolute as both the *Alpha* (beginning) and *Omega* (end) of all cycles, reflected here.

The Old Testament declared the Hebrew word *Emet* (or "Truth") at the completion of the cycle of creation. *Emet* is composed of the first, the middle and the last letters of the Hebrew alphabet. These are the final three letters of the final three words of the account of creation given in Genesis. In Hebrew these last three words are "*bara Elohim la'asot*" ("God created to do"). (*Genesis* 2:3)

The Buddha referred to the ever-changing cycle as the Noble Truth of *Annica* ("impermanence"). All created things come to their inevitable conclusion, a conclusion

which is devoid of any inherent characteristic, which he described as *Sunyata* (a word whose origin is the same used by Indian Mathematician Pingala, who called 0 "*Sunya*" meaning "empty" or "void").

Various important cycles can be described using the 3-part cycle. For example, the Cycle of Life, has been described in spiritual traditions across time:

Spirit assumes Form: Creation of Identity: $0 \rightarrow 1$

Spirit remains as Form: Identity ("I"): $1 \rightarrow 1$

Spirit departs Form: Loss of Identity, Death: $1 \rightarrow 0$

Whether this is an adequate representation of what occurs in Life is not discussed now. This is meant to typify the age-old spiritual consideration of the Cycle of Life. One point we can make though is regarding this first transformation $0 \rightarrow 1$, the act of Creation. With respect to Life we can generally describe this as the creation of the basic sentient capacity. $0 \rightarrow 1$ is the generation of an efferent sentient line which allows the Body to receive and relay information to the source consciousness. It is akin to a ping. When this pure generative capacity or ping is gone, the Body is functionally dead or inert. It should be noted that this creative capacity is generally ignored or denied in the current scientific view in general. In Biology, Life evolves passively due to being most fit for a particular environment, which passively "selects" those genes best adapted to survive—the occurrence of which are the result of random (and passive) mutation. In Physics, things happen or occur according to natural law. In Chemistry, properties emerge. Since the time of Darwin, scientists have been actively seeking the destruction of the notion that anything in existence is purely *created*. Everything "happens", "occurs", or "emerges", by law or by chance. Curiously, it is our creative genius—ubiquitous in childhood—that gets annihilated as we age—perhaps as a direct result of indoctrination into an existential worldview that denies the creative capacity entirely. Here we posit that sentience is not a passive process; sentience is a pure creation, the spark of Life.

We could also use the 3-part cycle to describe the actions of consciousness in the process of acquiring knowledge. This is not a consideration of cognitive processes, rather the transformations of a Knower in the process of Knowing. If we consider the Absolute as "the Knower", the Definite as "the Knowable", and the Infinite as various manifestations of "Knowing", we can describe the Cycle of Knowledge (Knower Knowing Knowable):

Knower absorbs itself in Knowable: Query: $0 \rightarrow 1$

Knower identified with Knowable, matches Knowable: Identification: $1 \rightarrow 1$

Knowable dissolves into Knower: Knowledge: $1 \rightarrow 0$

Alternately, we can consider the same Cycle of Knowledge as actions or verbs, in which case, we describe the Cycle of Knowing:

Knower absorbs itself in Knowable: Attend (from the Latin "stretch one's mind toward"):

 $0 \rightarrow 1$

Knower identified with Knowable, matches Knowable: Mirror: $1 \rightarrow 1$

Knowable dissolves into Knower: Know or Perceive (from the Latin "take hold of entirely"): $1 \rightarrow 0$

Query, Identification, Knowledge. Attend, Mirror, Know. These three transformations describe the cycle of Knower Knowing Knowable leading to Knowledge. For example, take your reading of this book. In order to Know what this book is saying, the following 3 transformations must occur:

- 1) You must first attend to the book with the implicit query to know: what is this book saying? Your awareness becomes thereby absorbed into the book, a knowable. $0 \rightarrow 1$
- 2) Your awareness absorbed in that which can be known, each word that exists on the page must now be identified or perfectly matched within awareness. $1 \rightarrow 1$
- 3) You must finally dissolve those identified symbols into meaning—a dissolution which at the same moment confers knowledge of the book. $1 \rightarrow 0$

If any of these actions are missing, fail, or are interrupted in some way, you wind up with incomplete or incorrect knowledge of the book.

The interruption of knowing, or incomplete cycles, forms an idea at the base of a yogic concept called *karma*. The word "karma" simply means "action" but is a deeper subject related to incomplete cycles that is discussed further in Soma.

One primary aspect of practice is to use the living sentient capacity—the light of awareness—to discover incomplete cycles held within the Body-Behavior-Being system and complete them. These incomplete cycles leave impressions and occlusions within the system and are referred to as *samskara* in the yogic tradition. Samskara are impressions left in the system in the willful process of living and lead to self-alienation and self-hatred—the perception that one must Become rather than simply Be. Samskara occlude the light-bearing channels of the system and cause one to misperceive reality.

One of the focuses of practice is dissolving these occlusions. Using the light of consciousness as solvent, a Being may realize its immortal, Absolute essence—its Oneness, Wholeness and simplicity of Being—through dissolution of these occlusions. It is a well-known principle in Chemistry that "like dissolves like"—the solvent must be like that which it wishes to dissolve. As the light of consciousness is a universal solvent, it is ready and available to dissolve light-occlusions held in the Body-Behavior-Being system. This brings modification of *attitude* (originally meaning "a way of holding the body"), change of *behavior*, and transformation of *perception*, the authentication of spiritual change. Spiritual practice thus has the capacity to change everything in our lives. 12 broad categories of practice are presented in Principle VIII and discussed more fully in Soma.

One relevant quote relating karma and knowledge from the Bhagavad Gita follows:

"As the heat of fire reduces wood to ashes, the fire of knowledge burns to ashes all karma." *Bhagavad Gita 4:27*

The desire to Know Self or spiritual knowledge in general is of the highest worth, across spiritual traditions. Every spiritual tradition exalts higher spiritual knowledge:

From the ancient Greek inscription inscribed in the Temple at Delphi: "Know Thyself!"

From the New Testament (Collosians 2:2-3) "My goal is that they may be encouraged in heart and united in love, so that they may have the full riches of complete understanding, in order that they may know the mystery of God, namely, Christ, in whom are hidden all the treasures of wisdom and knowledge. "

From the Qur'an (Verse 20:114): "High above all is Allah, the King, the Truth! Be not in haste with the Qur'an before its revelation to thee is completed but say "O my Lord! Advance me in knowledge."

From the Amidah (daily prayer of the Jew): "Favor us with knowledge, understanding, and discretion that come from you. Exalted are you, Existent-One, the gracious giver of knowledge."

From the Tao Te Ching (Chapter 33:1): "He who understands others understands Two; but he who understands himself understands One."

From the Dhammapada (Chapter 14:194): "Blessed is the birth of the Buddha, blessed is the enunciation of the sacred Teaching; blessed is the harmony in the Order; and blessed is the spiritual pursuit of the united truth-seeker."

From the Taittiriya Upanishad (Chapter 1:2): "He who knows Self which is Reality, Knowledge, and Infinity hidden in the cave of the heart and in the highest [space] — he, being one with the omniscient Self, enjoys simultaneously all desires."

Finally, to the degree that the objective universe is part of the unitary Definite expression of Self, then we could consider all scientific and "objective" looking, asking, knowing as Self-knowing too. The Spiritual Scientist looks in, while the Physical Scientist looks out. The Knower is the constant basis of both; Knowledge is the common quest.

Knowledge is not perfectly an intrinsic good. It is meant to expand perception and cultivate Love—which is intrinsically good.

It will be seen in Principle VI and VII that Omni generates an expanding form that is self-repetitive at all levels of scale. If the basic design of existence can be shown to be both unitary (All is One) and unique (All is One-of-a-Kind), such knowledge alone could open the pathway to both universal and self-love—Love that is both transcendent and immanent.

This gives Self-knowledge in the service of Love as the highest purpose of existence, of Omni.

VI. The basic cycle of existence, Create-Continue-Complete, can be described using two generator functions. The two functions generate a tree in Divine Proportion (Golden Ratio) and describes the basic form of Omni. This is the Omni Tree.

Mathematics Commentary:

- Recall the 3-part cycle: Create: 0 → 1 Continue: 1 → 1 Complete: 1 → 0
- 2. We can describe this cycle using 2 generator functions.

Function 1: $0 \rightarrow 1$

Function 2: $1 \rightarrow 1, 0$

Function 1 is simply "0 goes to 1" (Create).

Function 2 is "1 goes to 1" (Continue) *and* "1 goes to 0" (Complete). More simply this is "1 goes to 1 and 0".

Considering both Function 1 and Function 2, a key phrase to retain is: "Each 0 goes to 1, each 1 goes to 1 and 0".

3. We can apply these two generator functions in *recursive iteration*, that is, we apply these functions such that the output becomes the input of the next iteration (Figure 6.1).

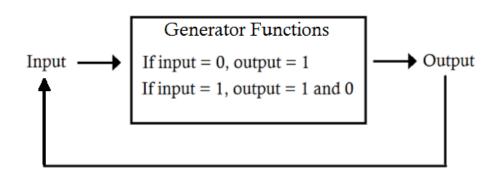


Fig 6.1 Recursive Iterations of Generator Functions

4. Beginning from only the Absolute (0), applying these two functions in the way described in Point 2 above, here is what we see (Figure 6.2):

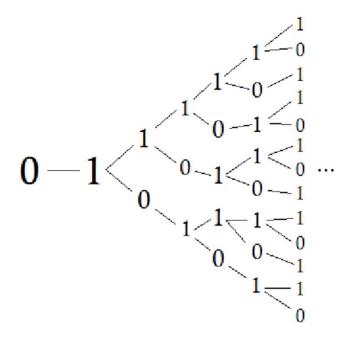


Fig 6.2 Recursive application of Generator Functions starting from the Absolute Recall: "Each 0 goes to 1, each 1 goes to 1 and 0". You can see this above.

Rotating the structure, we see the form of a tree. We hereafter refer to this structure as the "Omni Tree" (Figure 6.3).

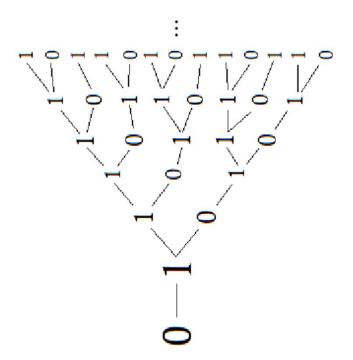


Fig 6.3 Omni Tree

5. If we count the elements of the Omni Tree at each iteration, we see a distinct sequence develop (Figure 6.4):

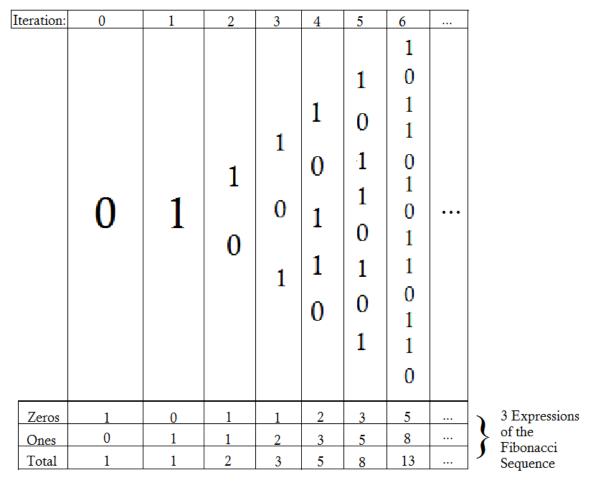


Fig 6.4 Count of 0s and 1s at each iteration, generating the Fibonacci Sequence at all levels

The sequence 1,1,2,3,5,8,13... is known in Mathematics as the Fibonacci sequence (0,1,1,2,3,5,8... is also considered the Fibonacci sequence starting from 0, starting it from 1,0,1,1,2,3,5... is likewise acceptable). It is more commonly generated by adding two sequential numbers in the series together to produce the next number in the series. For example, 1 + 1 = 2, 1 + 2 = 3, 2 + 3 = 5, 3 + 5 = 8, etc. We see at every level of enumeration this pattern holds. Add any two adjacent numbers in any row and it produces the next number in that same row, whether the "Zeros", the "Ones", or the "Total".

6. The Fibonacci sequence is important because it presents a discrete approximation of an irrational number known to mathematicians as the "Divine Proportion" or "Golden Ratio". "Irrational" means it cannot be precisely expressed as the ratio between any two integers. You may already be familiar with another irrational number π (pi), which like the Golden Ratio cannot be expressed exactly by the division

of any two integers. The decimal form of the Divine Proportion is 1.6180339... which goes on in decimal form infinitely. The exact value of the Divine Proportion is the irrational value $(1 \pm \sqrt{5})/2$.

Though the Divine Proportion cannot be expressed precisely as the division between any two integers, a unique feature of the Fibonacci Sequence is that as the numbers in the series get larger and larger, the division of any two sequential numbers, (the larger by the smaller) gets closer and closer to the Divine Proportion. You can see this here:

- 1 / 1 = 1
- 2 / 1 = 2
- 3 / 2 = 1.5
- 5 / 3 = 1.6666
- 8 / 5 = 1.6
- 13 / 8 = 1.625

As you can see the division of adjacent numbers in the Fibonacci Sequence, the larger by the smaller, is getting ever closer to the 1.6180339... the Divine Proportion.

In math speak, as the Fibonacci sequence goes to Infinity, the growth rate of the Fibonacci sequence *converges* on the Divine Proportion. This gives a direct relationship between the Fibonacci sequence and the Divine Proportion.

Further Mathematics Commentary:

Before diving in depth into all the metaphysical properties of the Omni Tree and the Divine Proportion (Principle VII), let's fully understand what the Divine Proportion represents. [Author's Note: this section is the only math intensive section of the book.]

Mathematicians discovered the Divine Proportion by asking themselves the following question: Given any whole length (c), where can we cut it, such that the ratio of the larger segment (b) to the smaller segment (a) is the same as the whole (c) to the larger segment (b)? This is called dividing a line in "mean and extreme ratio". We can picture it here (Figure 6.5):

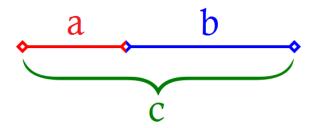


Fig 6.5 Length c cut such that ratio of b to a = ratio of c to b

For any length (c) there is precisely one cut we can make to satisfy the question. In truth we could cut the length (c) in two different *places*, but we would get the same ratio, so mathematicians consider this an identical solution. We can see that (b) is bigger than (a) by the same proportion that (c) is bigger than (b). The symbol mathematicians use for this proportion is the Greek letter Φ (*Phi*). The "Divine Proportion", the "Golden Ratio" and "Phi" are terms used interchangeably, all referring to this same concept.

As we see in Figure 6.3, the 3 enumerations of the Fibonacci sequence in the Omni Tree can be described this exact same way. As the number of iterations gets successively larger, the ratio of Ones to Zeros is identical to the ratio of Total elements to Ones. Take a calculator and using the final column in Figure 6.3, see that the ratio of 8 to 5 is already very close to the ratio of 13 to 8. There is a slight difference between the two of course, but this is only at the sixth iteration of an Infinite Omni Tree. At the 100th iteration of the Omni Tree, the ratio of Ones to Zeros is identical to the ratio of Total elements to Ones, both of which are identical to Phi (to 38 decimal places!) As the number of iterations goes to infinity, the two ratios both equal Phi exactly.

It is not only the ratio of 1s to 0s and 1s to Total that converge on Phi in the Omni Tree. As the number of iterations goes Infinite, each of these 5 aspects of the Omni Tree converge on Phi:

- 1. the ratio of 1s to 0s,
- 2. the ratio of the Total elements to 1s,
- 3. the growth rate of the total number of 0s,
- 4. the growth rate of the total number of 1s,
- 5. the growth rate of the Total elements.

The Omni Tree is resplendent with Phi.

For a practical example of Phi in your personal life, it may help explain why, as we age, the years seem to go by faster and faster (if you are young and not familiar with this phenomenon yet, ask an older person). If we consider only the ages 1, 2, 3, 5, 8, 13, 21, 34, 55, and 89 we see that the ratio of Time Past (Current Age) to Future Time (Number of Years till Next Age in Series) is approximately the same at each one of these ages. The amount of newness-to-oldness we experienced from 5 to 8 is the same amount we feel from 8 to 13 and then again from 13 to 21, 21 to 34, etc. As we age, it takes ever more years to experience the same proportion of new years to lived years. That proportion is the Divine Proportion, Phi. This also logically points to the moment of conception as an Infinite newness, the spark of Life.

Using the Omni trinity, you might picture the enumeration of elements at the Infinite iteration as (Figure 6.6):

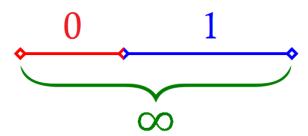


Fig 6.6 ratio of 0s to 1s = ratio of 1s to Total in Omni Tree, (also ratio of 0 to 1 = ratio of 1 to ∞)

From Mathematics, we know:

1. the ratio of 0 to 1 = the ratio of 1 to $\infty = 0$.

And in the Omni Tree at the Infinite iteration, we know:

2. the ratio of 0s to 1s = the ratio of 1s to Total = 1/Phi. (Phi is the ratio of 1s to 0s and Total to 1s; the ratio expressed in point 2 is its inverse.)

If we take the above two results and equate them, we get the following: 0 = 1/Phi. This is mathematically equivalent to Phi = 1/0. Though in mathematics the equation Phi = 1/0 is not true (division by 0 yields an undefined value), we might consider it as "Phi presents the Absolute as the common denominator of all that we see (all Definites)".

Even if we cannot accept the above line of reasoning due to mathematical fallacy, minimally we can see Omni Tree presents a clear relationship between the Absolute (0), the Definite (1), the Infinite (∞) and the Divine Proportion (Φ). Even the symbols 0, 1, ∞ , Φ bear an uncanny visual relationship; Phi appears the hybrid of the trinity; the Omni Tree represents the expression of Omni.

Spiritual Commentary:

Mathematicians aren't known for exaggeration, so why the high praise "Golden" or "Divine"? Without even being a spiritualist, you can see that mathematicians were essentially asking themselves this question: How do we cut an Original Whole such that the relationship of Child to Parent is the same as Parent to Original Whole? The query itself is Golden enough. It points to the idea of each part having an immanent and transcendental relationship to the other part and the totality, a notion we will explore further in Principle VII.

Mathematicians have been extolling the mathematic-spiritual properties of Phi for over five hundred years. Italian mathematician Luca Pacioli wrote a book at the end of the 15th century entitled *Divina proportione* (illustrated by Leonardo Da Vinci). In the fifth chapter, Pacioli gives 5 reasons why Phi should be called the "Divine Proportion":

- 1. Its value represents divine simplicity.
- 2. Its definition invokes three lengths, symbolizing the Holy Trinity.

- 3. Its irrationality represents God's incomprehensibility.
- 4. Its self-similarity recalls God's omnipresence and invariability.
- 5. Its relation to the dodecahedron, which represents the quintessence.

Divina proportione, Pacioli

The German astronomer-mathematician, Johannes Kepler—whose work on planetary motion arguably marks the beginning of the Scientific Revolution—had the following to say about the Fibonacci Sequence:

"It is in the likeness of this self-developing series that the faculty of propagation is, in my opinion, manifest: and so in a flower the authentic flag of this faculty is shown, the pentagon."

On the Six Cornered Snowflake, Kepler

Kepler relates the pentagon and Phi to the natural construction and growth of the flower, an idea we take up further in Principle VII.

Pacioli mentions the dodecahedron (from the Greek meaning "12-faced"), Kepler the pentagon, a relation we can see here (Figure 6.7):

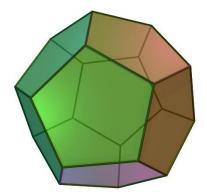


Fig 6.7 Regular Dodecahedron with each face as Regular Pentagon

The regular dodecahedron was also important to the Greek philosopher Plato. Plato considered it the fifth element—the "quintessence" (from Latin "fifth essence") referenced by Pacioli in his point 5. Plato believed an Absolute power used the dodecahedron to organize the cosmos. Without going into the math, we know the coordinates of the vertices (corners) of the dodecahedron are located by Phi.

Take pause for a moment to notice how the early great scientists and mathematicians were still intimately concerned with God and Nature in their views. Their understanding was usually coupled with an awe of the *cosmos* (from the Greek "order, arrangement" said to have been first used in this sense by the mathematician-spiritualist Pythagoras).

The number 5 and the star-inscribed pentagon are related to Phi in many ways of which we will only discuss one relation here (Figure 6.8):

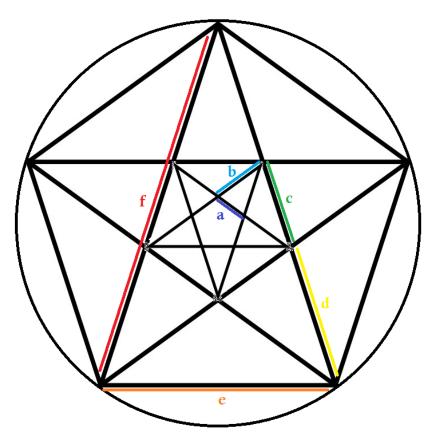


Fig 6.8 Side lengths grow by Phi in the star-inscribed regular pentagon

In Figure 6.8, the length of the side marked by any letter grows by Phi to the length of the side marked by the next letter, that is:

a x Φ = b (a times Phi = b), b x Φ = c, c x Φ =d, d x Φ =e, e x Φ = f.

Considering figure 6.8 more closely, you might observe that the rotations around the triangular shape marked by a,b, and c are the same rotations around the triangular shape marked by d,e, and f; of course, the lengths of a,b,c are in the same proportion as lengths d,e,f.

These notions of "self-developing" (Kepler) and "self-similarity" (Pacioli) seen in the star-inscribed pentagon and in the Fibonacci Sequence, will be discussed along with several other mathematic and metaphysical properties of the Omni Tree in Principle VII.

VII. The Omni Tree illuminates at least 5 properties of existence.

[In Principle VII the Mathematics and Spiritual commentary are presented as one.] Mathematics and Spiritual Commentary:

Recall the Omni Tree (Figure 7.1) and the enumeration of its elements (Figure 7.2):

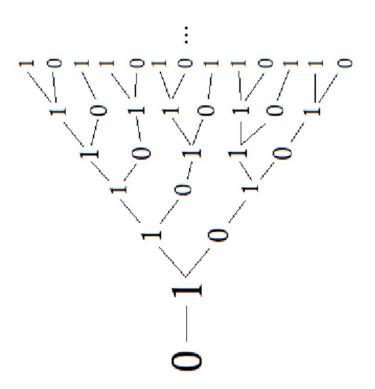


Fig 7.1 Omni Tree

Iteration:	0	1	2	3	4	5	6]
	0	1	1 0	1 0 1	1 0 1 1 0	1 0 1 1 0 1 0	1 0 1 0 1 0 1 1 0 1 1 0	
Zeros	1	0	1	1	2	3	5	 3 Expressions
Ones	0	1	1	2	3	5	8	 of the Fibonacci
Total	1	1	2	3	5	8	13	 Sequence

Fig 7.2 Enumeration of Elements generating the Fibonacci Sequence at all levels

What mathematical properties do the Fibonacci Sequence, Phi and the Omni Tree exhibit that might shed further light on the nature of this reality and our individual life in relationship to the whole?

Keep this question in mind as you go through this principle. We'll be discussing several mathematic and metaphysical properties of the Omni Tree.

Properties of the Omni Tree

The first property we will discuss, is one that has been hinted at since the end of Principle V. That is that Omni Tree is an example of a *fractal*. A fractal in mathematics, is a form that demonstrates the property of self-similarity at all levels of scale, that is, each part,

has the same characteristic as the whole. Every branch and the whole of the Omni Tree is related to Phi.

You can see another example of a fractal in the following object called the "Barnsley Fern", named after mathematician Michael Barnsley, who originally generated it (Figure 7.3):



Figure 7.3 Example of a fractal, Barnsley Fern

As you can see, each branch of the fern is similar to the total fern, as is each branch of a branch, down as far as your eye can see (the Barnsley Fern is computer-generated).

The origin of fractal mathematics comes from the idea of recursion. Certain functions when repeated—using the output of one iteration as the input for the next—generate fractals. You can see this idea demonstrated step-by-step (Figure 7.4):

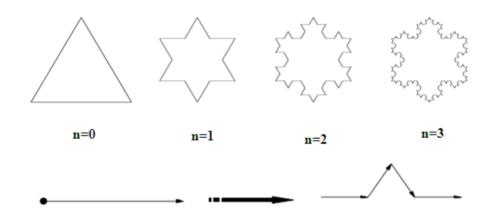


Figure 7.4 Example of fractal generation

As you can see the object is made by creating smaller triangles on all sides of the original triangle and continuing that same activity. The "n" in Figure 7.4 is the number of iterations of the basic function. Given at the bottom of the image, the basic function is a single function which translates a vector to four smaller vectors making a triangle-shaped dent in the middle. If you just keep repeating that function you get the fractal you see here after 7 iterations (Figure 7.5):

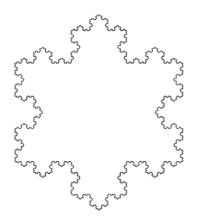


Fig 7.5 Koch Snowflake after 7 iterations

The name of this fractal is the "Koch Snowflake", described originally by Swedish mathematician Helge von Koch.

For the Omni Tree, we recursively applied the two generator functions of the 3-part cycle of existence Create-Continue-Complete. The recursive iteration of the generator functions created the Omni Tree, which, as was demonstrated in Principle VI, exhibits this property of self-similarity. Take any branch of the tree and see that it resembles the whole (Figure 7.1). The Tree and its elements are entirely and severally related to Phi.

For an example of a natural fractal, observe the broccoli. It demonstrates a remarkable fractal property. Each branch of the broccoli could stand as a representation of a whole

broccoli plant even down to very tiny pieces of the broccoli. Furthermore, the tiny green buds at the tips of the broccoli contain what later become the broccoli seeds (after flowering and pollination), meaning the broccoli fractal continues through space *and* time. As fractals can only be generated by a recursive function, we can say the broccoli grows intelligently, using the inputs from soil and sun to generate outputs in the form of material growth, which then inform the next round of branching, growth and reproduction—on and on for as long as the broccoli as we know it shall exist.

The broccoli is not the only thing in nature to exhibit fractal patterning. For further examples, simply search for "Fractals in Nature" online and you will discover a whole world of fractals, from snowflakes, to lightning bolts, to the branching of arteries that carry your blood to the branching of the lungs that clean and enrich it. Fractals present the best model for understanding a vast range of phenomena both natural and man-made (for example, one of the pioneers of fractal mathematics, Benoit Mandelbrot, described stock price movements as a fractal at varying time scales.) You can search videos of "Mandelbrot Set Zoom" if you'd like to see a very intricate and fascinating man-made fractal.

But what about the human?

The idea of man as a small-scale order (or microcosm) of the larger or infinite Divine order (or macrocosm) is one that goes back millennia. In the West, it may have first appeared through the Greek philosopher Plato. Plato reasoned that the human being is composed of an elemental body derived from the Universe's elements and a rational soul which must too be derived from the Universe's soul. In the JudeoChristian tradition, we are told that we were made in the image of God, that our Being is in the likeness of the Supreme Being. Kabbalah, a mystical offshoot of Judaism, conceived of "Adam Kadmon", the cosmic or primordial man, who serves as the template and source for all other humans. In the tradition of alchemy, Hermes Trismegistus is credited with the words, "As above, so below, as within, so without." The qualities that exist in the universe exist in the individual and vice versa. And before all of these, in the Yajur Veda of India, we come to the phrase: *Yatha pinde tatha brahmande, yatha brahmande tatha pinde.* ("As is the individual, so is the universe, as is the universe, so is the individual.")

As mentioned in Principle IV, the sacred number 108 implied the number 5, the anatomical relevance of which we see reflected in the human body fractal. The human body exhibits a remarkable fractal relationship in its gross anatomical design. For example, notice that your central torso has 5 appendages: 2 arms, 2 legs, and 1 head. Notice that your hand and foot is a fractal (self-repetition) of the torso: a central palm, surrounded by 5 "appendages" or fingers/toes.

Notice further that the 4 appendages of legs and arms each have 3 major divisions. The arm is split into upper arm, forearm, and hand, the leg split into upper leg, lower leg, and foot. Notice how each of the 4 finger appendages to the palm is also split into three parts.

Now see the thumb appendage has only two major divisions, one thin and one bulbous, as does the neck (thin) and head (bulbous) appendage to the torso.

Notice we said "your hand and foot is a fractal of the torso" we could have also included the head too. But the "fingers" of the head are different. The head has 4 senses uniquely connected to it: Taste, Smell, Sound, and Vision, and a fifth that is shared throughout the body, Touch. Thus, the head is like the hand in that it has 4+1 feeling "fingers" in total.

Notice also that the function of the mind in aggregating the information provided by the 5 senses, exists to "grasp" or "seize" things, not unlike the function of the hand. Many words in the English language reference this grabbing quality of the mind through their etymologies e.g. "grasp", "comprehend", "conceive", "perceive", "fathom" all have their etymologies reference a grabbing action. Here we see self-repetition in the gross anatomy of the human body, and functional self-similarity between the aggregate sensory functions of the head and the action of the terminal appendages. We might say the entire human anatomy exists to grab or perceive existence. This highlights the limitations of the grasping mind and hints at the genesis of the objective sciences' demand for manifest evidence. The grasping mind can only hold the Definite. The grasping mind cannot hold the Absolute or Infinite because the mind itself is a product of them. Like the shadow that can never behold the Sun, the grasping mind cannot hold the totality of existence. Two generators of this existence, Absolute and Infinite, are beyond the scope of the grasping mind.

Continuing our discussion of the fractal of the human body, notice that the index or indicating finger is the right most finger on the right arm and the left most left finger of the left arm (palm up). This finger therefore might be conceived of as the most Definite of the Definite. We hold this finger up first to denote the number 1 and use it when pointing. It is the index or indicating finger, devoted to the Definite, whether as self or object. When this finger is curved to touch the top of the thumb, it is bending this most Definite of the Definite to meet the top of the thumb which is a fractal of the top of the head, the portal of the Absolute in the yogic tradition. This connection forms the circular loop or infinity. It is an example of a *mudra*, an energetic seal used in meditation. Perhaps you have observed meditators using this hand gesture and wondered why. This particular mudra called *Jñāna Mudra* is used to activate wisdom, the Definite touching the Absolute, forming the Infinite (Figure 7.6) (The *Jñ* is linguistically related to *Gn* as in "Gnostic" and *Kn* as in "Know".) A fractal understanding of the hand-as-Body begins to give a clearer understanding of the use of mudras.



Fig 7.6 Jñāna Mudra

Taking this further, if we were to represent the hand as a whole human with the thumb as head, we should expect the index and pinky finger (as fractals of the arms) to be shorter than the middle and ring fingers (as fractals of the legs). This is indeed what we find (Figure 7.7):



Fig 7.7 Hand as Human (left), "arms" shorter than "legs" (right)

Taking the fractal design of the human body one final step further, we also have a fractal design in our organ relation. The main sexual organs are, in biological males, two testes and one penis, and in biological females, two ovaries and a uterus. Higher up the torso we find two kidneys and a bladder. Next, we find two lungs and a heart. Higher still, the organs of communication are two ears connected to the throat, where the vocal chords are located. Higher still, we find the organs of taste in two nostrils and a tongue. Finally, the yogis considered one final fractal of two eyes and a third eye. The position of the "1" in this "2+1" construction of the organs from the base of the spine to the brain is remarkably similar to the description of several *chakras* (awareness centers) in the yogic system. (Figure 7.8)

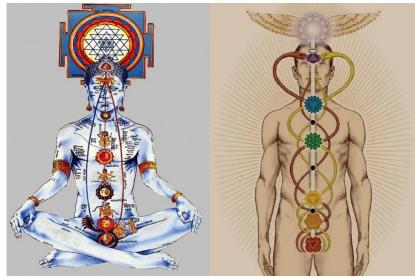


Figure 7.8 Yogic Chakra System

Recall we referenced the 2+1 construction in observing the way the 5-pointed star inscribed within the pentagon created a 2+1 relationship between the angles (Figure 4.2). One thing to consider is that the water molecule—which is *the* biological necessity for life in so far as we know—has a 2 + 1 construction in the form of two hydrogen atoms and one oxygen atom. We also know that the B-DNA molecule (the predominant DNA configuration), when looked at top-down, displays a remarkable star-within-pentagon at its center (Figure 7.9):

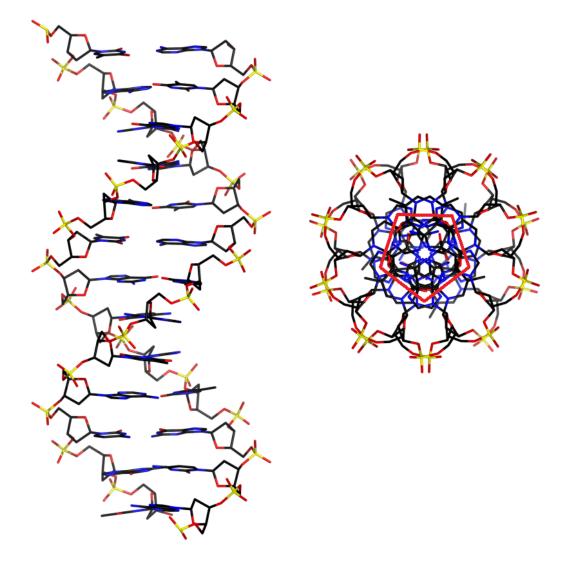


Fig 7.9 Side view (left) and top-down view (right) of B-DNA molecule (with red pentagon added for emphasis) [Source: <u>Wikipedia</u>, User: Mauroesguerroto, Adapted from original]

We might wonder, does DNA use water as a basic template for encoding a fractal pattern in the human body? Such is mystical speculation but points to potential knowledge for which the rational mind has no basis. We do not and should not deny intuitive sources of knowledge or knowledge that comes "from nowhere" simply because it does not satisfy the limitations of the grasping mind. This is a limitation of the objective sciences, we must openly

and repeatedly mention, because it denies too much of human, and yes, spiritual existence. By only recognizing the Definite, the objective sciences leave us with mechanical existence as the highest intellectual justification for man's existence. It is a crippling paradigm. But if we turn to the noble science of Mathematics and recognize that the objective sciences are talking about only one dimension of this reality, the Definite, then man is instantly free to discover the Absolute and the Infinite with faith and conviction.

Considering all these points together, we come up against the limits of the grasping mind. Relating the Mathematics of 0, 1, and ∞ to the Divine Proportion, to the geometries of the pentagon and star, to the geometries of the DNA and water molecule, to the anatomical fractal of the human body, is simply too much for the grasping mind to reconcile. It requires faith in a grand order.

It should be noted, it is with the exact same faith in the existence of a grand order and hopes for some discovery of it—that object-oriented research scientists put on their lab coats in the morning. The questions to them are, just how broad is the order? At its broadest, does the order tend toward complexity or simplicity? Finally, do objects alone satisfy the whole of it?

This brings us to the first faith-and-math based property of the Omni Tree:

1. The Omni Tree presents the whole of existence as a self-developing, self-similar entity—a fractal. All is One.

The second property to discuss is an easy one to see. Starting from the Absolute and moving to any other position on the Tree, you will find that the sequence of 0s and 1s that you went through to get from 0 to that position is entirely unique. From the Absolute to each other position on the Tree describes a completely unique sequence of 0s and 1s to get there. Go ahead and try it for yourself and see.

[This will not be proven here mathematically, but it is a logical result of the fact that the functions are asymmetrical, that is, 0 produces only one output and 1 produces two outputs.]

This brings us to the second faith-and-math based property of Omni Tree:

2. The Omni Tree presents each facet of existence as bearing a unique relationship to the Absolute. All is One-of-a-Kind.

The third property to look at is derived from the relationship between the Divine Proportion and 5 aspects of the Omni Tree, mentioned in Principle VI. Recall, as the number of iterations goes Infinite, each of these 5 aspects of the Omni Tree converge on the Divine Proportion:

- 1. the ratio of 1s to 0s,
- 2. the ratio of the Total elements to 1s,

- 3. the growth rate of the total number of 0s,
- 4. the growth rate of the total number of 1s,
- 5. the growth rate of the Total elements.

Looking at these 5 aspects more closely, we see that the Points 1 and 2 refer to relationships *within* any iteration. That is, we look within each iteration to count the 1s, 0s and Total and assess those two ratios. Points 3, 4 and 5, by contrast, represent relationships *between* iterations. That is, the growth rates are assessed from one iteration to the next.

This presents us with the idea that the Omni Tree is harmonious both *intra-* and *inter-* iteration. There is both a vertical (inter-) and horizontal (intra-) harmony in the Omni Tree (considering the Omni Tree oriented upright as in Figure 7.3). There is both a static (intra-) and dynamic (inter-) harmony. Furthermore, the two harmonies feed each other.

This brings us to our third faith-and-math based property of the Omni Tree.

3. The Omni Tree presents existence as pervaded by a grand harmony and balance.

The next property of the Omni Tree points to questions for the science of Biology. If we accept the idea that fractals are indeed the best way to model and represent many aspects of what we see in living organisms and existence in general, it immediately presents us with the idea of intelligence. A fractal pattern is an *intelligent pattern*. A fractal takes the outputs from one iteration as the inputs of the next. As we discussed in the broccoli, this is occurring through space *and* time. It is ongoing, continuing for as long as the broccoli shall exist. In modern Biology theory, we are presented with the idea of life coming from randomness. This is fine as a theory in and of itself, however one thing we know is that a recursive function (the function responsible for fractals) is not random. Randomness can of course describe instances of order, but it does not, and never has, described order that continues infinitely. Randomness and infinitely continuing order are independent constructs. Unless mathematicians or computer scientists can demonstrate the creation of an infinitely repeating function through random generation—a notion that is likely preposterous to mathematicians. We are left with a giant hole in our understanding of Life from modern biological theory. For order to be produced from chaos, there must be intelligence.

This is not to say there is no indeterminacy in this reality. We see indeterminacy very clearly in the second iteration of the Omni Tree. Because Function 2 presents two outputs (1 *and* 0), we have the direct basis for indeterminacy—like a coin with one side heads and the other side tails, or like Eve learning of Good and Evil, [or like physicist Erwin Schrödinger's famous cat, both alive and dead]. Though there is indeterminacy in this reality, there is also intelligence. It is the cycle itself and the basic phenomenon of time that points to the Infinite intelligence. We don't have pure chaos; we have cycles in this universe, and this basic order, is born of the same intelligence behind the recursive function. There is no necessity that anything in this reality should cycle. We could imagine a reality that had no cycles

whatsoever. The existence of a cycle and by extension the recursive function and fractals, are a function of an intelligent order.

This brings us to the fourth faith-and-math based property of the Omni Tree.

4. The Omni Tree presents existence as pervaded by a universal intelligence.

As we know, the Omni Tree is expanding by Phi, but perhaps there is a better way to more clearly visualize that expansion. If we take the Fibonacci Sequence 1, 1, 2, 3, 5, 8, 13, 21, etc., and give it a two-dimensional representation, we see the following (Figure 7.9):

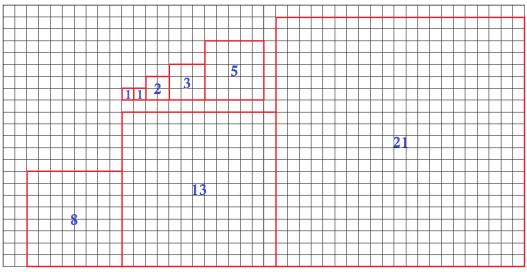


Figure 7.9 Two-dimensional representation of the Fibonacci Sequence

If we now reorganize these boxes and draw an arc through them such that the arcs connect, we can observe the expansive quality more clearly (Figure 7.10):

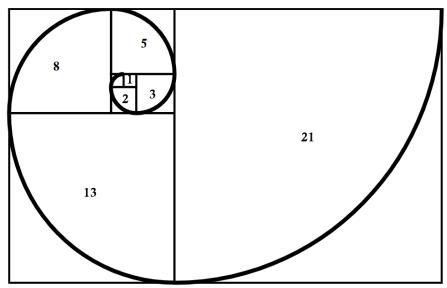


Fig 7.10 Fibonacci Spiral

This generates the Fibonacci Spiral. Just as the Fibonacci sequence represents a discrete approximation of the Golden Ratio, so does the Fibonacci Spiral represent a discrete approximation of the Golden Spiral. The Golden Spiral is a spiral that proceeds infinitely. It is an example of a perfect 2-dimensional fractal. Imagine for a moment if you were caught somewhere in the middle of a Golden Spiral. The view inward toward the origin and the view outward would look *exactly the same* from anywhere in the spiral (except at the very origin itself). We find accurate approximations of the Golden Spiral form in many places in nature. From the whorl of a sunflower, to the arms of a hurricane, to the organization of galaxies, the Golden Spiral accurately describes the organization of many systems (Figure 7.11). What is most surprising is that it occurs across so many different orders of magnitude both animate and inanimate.

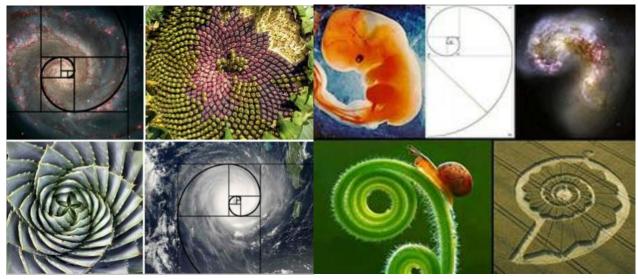


Fig 7.11 Examples of Golden spirals at various orders of magnitude

That the Golden Spiral transcends human constructs such as "animate" and "inanimate", gives reason for pause—it wasn't so long ago that man considered the entirety of existence alive. We might wonder why this basic template exists, in orders great and small, if it weren't a fundamental organizational aspect of this existence.

One of the predictions of Einstein's Theory of General Relativity is that our universe would grow, expand. It has been confirmed by experimental evidence from astrophysics, that indeed our universe is expanding. The spiral of course is both cyclic and expansive. If we consider time as a cyclic phenomenon and space as an expansive phenomenon, then the Golden Spiral gives us a speculative form for the very fabric of space-time.

More spiritually relevant, it was mentioned in Principle VI that the yogic sages chose the word "Brahman", whose root is *brh- meaning "swell" or "expand", to describe the highest truth of existence several millennia ago. We see that the Omni Tree develops this expansive capacity from an original creative capacity of the Absolute. The creation of the Definite, which thereafter persists (continues) and completes (recall Function 2 of the generator functions), describes consciousness expanding through form by Life.

Recall the words at the end of the account of creation in the Torah: *bara Elohim la'asot* "God created to do." (*Genesis* 2:3)

Further in the Upanishads it is written, "Having created the creation, the creator entered into it." (*Taittiriya Upanishad* 2.6.2).

These words from ancient scriptures declare the continuing activity of the Absolute within the Definite.

We can use the universal template of the spiral to describe this conscious expansion beginning from the Absolute. The Absolute uses the Definite form to effect and evidence that expansion. Its expansion describes the path of the Heart, a virtuous path which expands to include ever more of Self. At its Infinite expression—its highest truth—the Heart includes Love for the totality of existence.

This brings us to our fifth faith-and-math based property of the Omni Tree:

5. The Omni Tree presents existence as an ever-expanding consciousness through form, a virtuous path of the Heart to include Love for All.

We could go on with more faith-and-math based properties of the Omni Tree and their relevance to existence, but this is a good enough start. In summary, the Omni Tree presents the following 5 properties of existence:

- 1. The whole of existence is a self-developing, self-similar entity—a fractal. All is One.
- 2. Each facet of existence bears a unique relationship to the Absolute. All is One-of-a-Kind.
- 3. The whole of existence is pervaded by a grand harmony and balance.
- 4. The whole of existence is pervaded by a universal intelligence.
- 5. The whole of existence is an ever-expanding consciousness through form, a virtuous path of the Heart that includes Love for All.

The Omni Tree represents a unique mathematical object with beautiful implications for this reality, this existence, Life.

VIII. When the student is ready, the teacher appears.

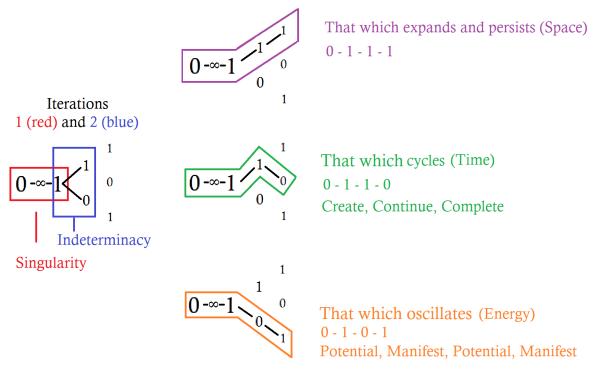
Mathematics and Spiritual Commentary:

In my experience as a student on the spiritual path—and forever a student—I discovered that life was constantly presenting me with the opportunity for my own spiritual growth. There is a constant inward pressing from the Heart to become more available, to love better, more wholly, more sincerely, graciously and humbly. Whenever I became closed to Life due to challenges I faced, it seemed there was always relief for my challenges within the Heart. In time, I learned many practices associated with opening the Heart, and I discovered with that opening, a greater ease and enjoyment of life. My capacity to Love and my capacity to enjoy Life are directly related. This is Love not as a Becoming, but as the very nature of Being. This gave me a great sense that the Heart is the Master, the teacher living within each of us. It is imbued with immanence and transcendence, two Infinites, that gratify one and all. This Heart is a gift of the Divine, born of Mother and Father, Body and Spirit. Through its capacity and insistence for Love—a Love that gratifies all—it is the Master Teacher, patiently awaiting our arrival to reveal its secret.

The symbol of Omni is based on the yogic symbol of the Heart Center. Using this symbol of the existential truth of the Heart, we can describe and arrange 12 practices for the betterment of one and all. You might wonder why 12 practices? As mentioned in the introduction, it is somewhat arbitrary-we can also describe a 1-practice path, a 2-practice path, and others—but it can be given an explanation. We see in Principle V that the basic expression of Omni is the 3-part cycle Create-Continue-Complete. We see in Principle VI that the Omni Tree presents us with a fractal model of existence. If we take these two ideas together, we see that Create-Continue-Complete can themselves be further divided in fractal fashion. For example, the act of Creation alone can be considered with three parts, Create-Continue-Complete. Take painting a picture. We could look at the whole act of painting a picture as "Create" alone. We can also take that act of Creation and break it down further into 3 parts, beginning with the creative inspiration to paint, continuing with the act of painting, and finally, completing the painting. So, the three main transformations Create-Continue-Complete can each be broken down further into three parts. This breaking down into 3s could be done infinitely of course, so we arbitrarily limit it to one repetition, as a respect and acknowledgement of the fractal. This gives us $3 \times 3 = 9$ branches of practice. What about the other 3?

You might have wondered why there was no mention of the transformation $0 \rightarrow 0$. 0 going to 0 is the Absolute remaining as the Absolute. It is simply Being and forever Being. It is a non-time transformation. Perhaps it describes how it was before there was a dynamic existence here. In fact, we can see from the Mathematics, that if we consider the cycle to be the 4 transformations $0 \rightarrow 1$, $1 \rightarrow 1$, $1 \rightarrow 0$ and $0 \rightarrow 0$, then we have two generator functions that are completely symmetrical, that is $0 \rightarrow 0$, 1 and $1 \rightarrow 1$, 0. We hypothesize here that the asymmetry between the transformations (0 giving 1 output and 1 giving 2 outputs) is

responsible for the persistent elements of existence. Looking at just the first 3 iterations of the Omni Tree, a highly speculative model could be described (Figure 8.1):



Unique products of Iteration 3, traced from the Absolute

Fig 8.1 Asymmetry leading to persistent universal elements

We have above a genesis-type story for the universe using the Omni Tree. We begin from a singularity, proceed to indeterminacy as the basic manifestation of asymmetry, and in Iteration 3 we have three unique 0-1 sequences that capably describe space, time, and energy. Curiously, in the Tao Te Ching, we find the words:

Tao gave birth to the One; The One gave birth to two things. Then to three things, then to all things... *Tao Te Ching*, Chapter 42

Regardless of the validity of the model given in Figure 8.1, Self-realization and the resolution of asymmetry through practice would require the addition of this 4th transformation $0 \rightarrow 0$. This would remove asymmetry by the inclusion of Continuance of Being ($0 \rightarrow 0$). If we then divide this transformation into 3 parts, we have 12 branches of practice in total. As mentioned in the introduction, it is intuitive and supported by the Mathematics, but somewhat arbitrary. Still, it serves a purpose. The 12 practices can be arranged as a cycle over 4 transformations with each branch of practice supporting the awareness focus of the next. On the following page is the basic understanding of the transformations (Figure 8.2) and the 12-branches of practice template (Figure 8.3) based on the Omni model of existence.

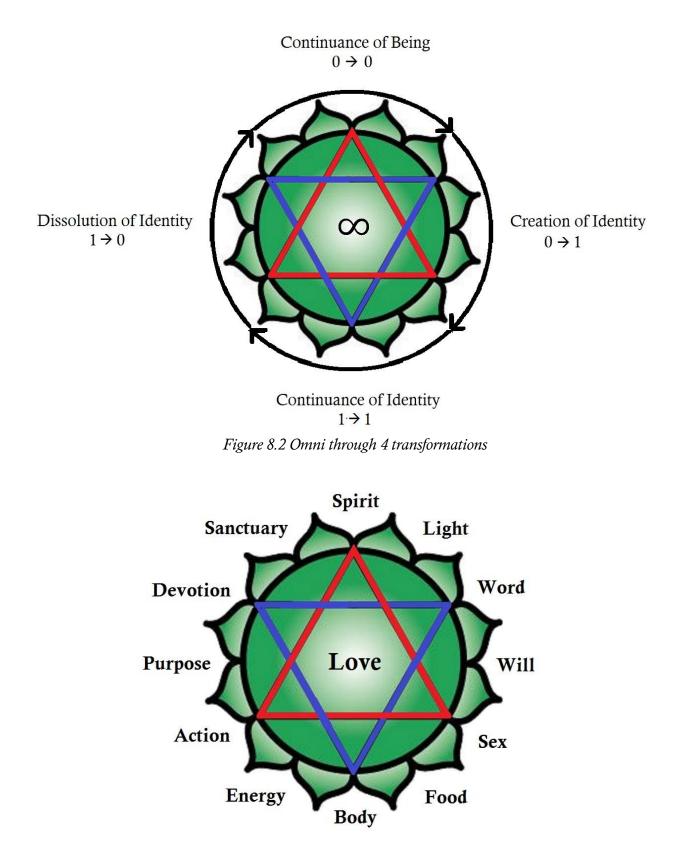


Figure 8.3 Omni as 12 branches of practice with Love as central guiding force

It may assist your comprehension to go around the 12-practice cycle clockwise a few times.

To clarify the relationship between the 4 transformations and the 12 practices, see here: Creation of Identity: $0 \rightarrow 1$ Creating Creation: Word Continuing Creation: Will Completing Creation: Sex

Continuance of Identity: 1 → 1 Creating Continuance of Identity: Food Continuing Continuance of Identity: Body Completing Continuance of Identity: Energy

Dissolution of Identity: 1 → 0 Creating Dissolution: Action Continuing Dissolution: Purpose Completing Dissolution: Devotion

Continuance of Being: $0 \rightarrow 0$ Creating Continuance of Being: Sanctuary Continuing Continuance of Being: Spirit Completing Continuance of Being: Light

Love is the central guiding force and harmonizes the following polarities (opposing sides): Light and Energy Word and Action Will and Purpose Sex and Devotion Food and Sanctuary Body and Spirit

This forms the basic template for practice and the 12 branches used for realization and transformation of the Body-Behavior-Being system. The full 12 are arranged in a clockwise fashion with each branch of practice supporting the awareness focus of the next practice, for continuous expansion of the presence and love capacity of the self-aware Being. It is the full subject of Soma. The connection between the Heart and the 12-petalled lotus, gives an everpresent reminder of the aim of all branches: an expansion of the Infinite Heart space as the supreme gratification and realization of Self. In this way there is really one main branch and path: the path of Love. In Soma, we will discuss this direct path further as well as a 2practice path. Indeed, much of what has been discussed of Soma herein-including using the light of consciousness to dissolve occlusions of the light-bearing channels (nadis) of the Body and the use of entheogens to open them and realize pure Being-is a basic description of the Loosely, this is bringing Spirit or consciousness into Body, and the 2-practice path. ceremonial use of entheogens as sacrament to bring Body into Spirit. In Soma, we will also discuss other path variations. As all existence is calling for your conscious expansion, Life and the Heart will guide you to the teachers and practices necessary as you become available for them.

The same template for practice can be applied to almost any spiritual tradition's practices as most spiritual traditions are possessed of and deal with these elements in their own way. Given here is an example of applying the template for practice to the many branches of yoga (Figure 8.3, given in Sanskrit without translation):

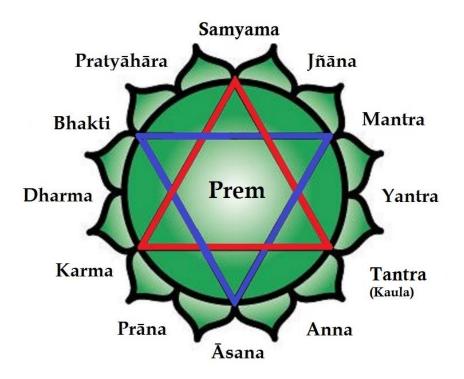


Fig 8.3 Omni template of practices applied to the branches of yoga

Finally, many beautiful people I have come across on the spiritual path have discussed the desire to live in spiritual community, in part to support their spiritual practice. Spiritual community is a powerful aid to practice and was considered one of the three gems by the Buddha. For a community to be strong, it should address the requirements and purposes of the individual. Therefore, community must intelligently consider how it will balance the capacities of the community with the needs of the individual. Individuals who have their needs met, strengthen the capacities of the community, and communities which have their capacities increased can service the needs of the individuals in the community better. It is a virtuous, self-expanding cycle. Given here are the 7 basic needs of the individual, also loosely organized to the chakras, which can be used as a general consideration for organizing spiritual community (Figure 8.4):

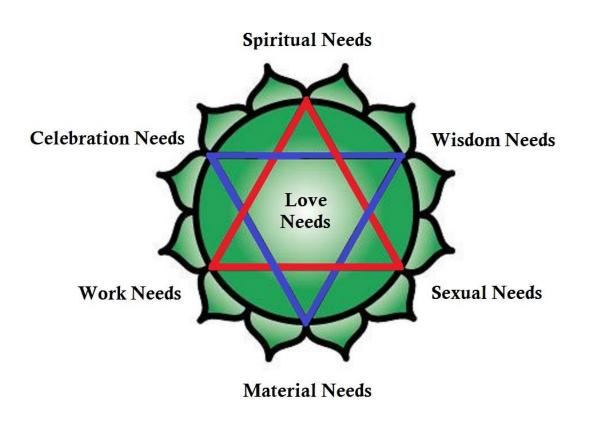


Fig 8.4 Omni as 7 basic needs

In closing, I share a short verse by the Sufi master, Rumi, on the nature of the Heart, followed by a mantra from the Upanishads in Sanskrit (with translation) on the nature of Infinity.

"Everyone sees the Unseen in proportion to the clarity of his heart, and that depends upon how much he has polished it. Whoever has polished it more sees more—more Unseen forms become manifest to him." -*Rumi*

Om Purnamadah Purnamidam Purnaat purnamudachyate Purnasya purnamaadaaya purnamevaavashishsyate Om Shāntiḥ, Shāntiḥ, Shāntiḥ

- Brihadaranyaka Upanishad

Om, That (Outer World) is Purna (Full with Divine Consciousness); This (Inner World) is also Purna (Full with Divine Consciousness);

From Purna is manifested Purna (From the Fullness of Divine Consciousness the Fullness of the World is manifested),

Taking Purna from Purna, Purna indeed remains,

Om, Peace, Peace, Peace.

Epilogue

The next time you look in the mirror, realize you are looking at a unique manifestation of existence. Realize also that you are looking at a self-repetition of its basic essence and substance and that you are One with the entirety of creation. Be kind to yourself and love yourself. If self-love is a struggle for you, there are practices and teachers available who exist to assist you on your path. Though it may not seem like it at times, the whole of existence is conspiring for your conscious evolution by the power of Love. That is the very function and purpose of existence.

The next time you look at a beloved or a stranger, recognize they too are a unique manifestation of existence. They too are a self-repetition of the basic essence and substance of creation. They too are One with you. Be kind to them and love them as yourself. If love for them is difficult for you, there are practices and teachers available who exist to assist you on your path. Though it may not seem like it at times, the whole of existence is conspiring for their conscious evolution by the power of Love. That is the very function and purpose of existence.

The purpose of this book is to encourage your spiritual journey to explore deeper and broader dimensions of your Being. If you found the model of existence given in this book compelling and wish to learn more about the practices introduced here, read Soma. There we will discuss in richer detail the creation and dissolution of self in Spirit. It is my great hope that it can be of service to you.

Acknowledgements

The understanding presented in this book would not have been possible without the work of many teachers and authors whose inspiration and insight gave me encouragement, conviction and clarity. It would be impossible for me to list all the authors of all the books from whom I absorbed some small influence. There are simply too many. Further to acknowledge them and not the innumerable interactions I had with friends, partners, and family members, all of whom shaped my spiritual path, would be unfair. Therefore, I give a heartfelt thank you—and a humble apology that it could not be more direct—to each and every one who shaped my journey even if not specifically named below. You have been a great source of encouragement and strength.

Below I only list the major influences on my spiritual thought and development. I do not vouch for the organizations that continue to hold the teachings of any particular teacher.

I give unqualified thanks to these teachers for being an important part of my spiritual journey and for helping me gain the clarity expressed here. Given roughly in chronological order of their intersection with my life, I wish to thank the following Beings for their light and love:

My late father, Brij Gopal Goel and my mother, Veena Goel née Gupta; Swami Vivekananda; Jiddu Krishnamurti; Srila Prabhupada; Swami Yogananda; Benoit Mandelbrot; B.K.S Iyengar; Prem Baba; Swami Sivananda; Lao Tzu; Sri Aurobindo, Swami Satchitananda; Patanjali; Meher Baba; Alan Watts; Aldous Huxley; Terrence McKenna; Carl Jung; Thomas Merton; Meister Eckhart; Rumi; Rajneesh (Osho); Ramana Maharshi; Svatmarama; the Dalai Lama; the Karmapa Lama; S.N. Goenka-ji; Mooji Baba; Mantak Chia; Swami Sahajananda.

Finally, I wish to give thanks to the following Masters, whose Love, Light and Life are Infinite and whose teachings are an ever-flowing fountain for me and billions of others:

Sri Krishna, Gautama Buddha, Jesus Christ.

Thank you. Thank you. Thank you.