

# Heaven-Earth-Self: The Fractal Divinity of Self

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## **Abstract**

The word in Chinese translated typically as heaven is a problematic one for understanding Chinese religiosity. In the West, the word heaven has far too many connotations to allow this to be an accurate and safe rendering. For Confucius, heaven is to be found elsewhere from where it is typically conceived of in the West. In the Confucian context and with qualification in the Daoist one as well, Tian is to be found in the emerging immanent patterns of human social behavior that are continually presenting themselves in emergent patterns of behavior. Changes that are not reasonable for the continuance, sustainability, and subsequent growth in Confucius' idea of a social system will pollute the system and subsequently cause its orderly flow of information to be disrupted sending it into the spiral of destructive change, extinction, and the emergence of a new order.

This commitment to a single, definite order is an appropriation of the emergent spontaneity that is immanent in the process of the li's becoming, which will mutate at the proper time for its—and the social organism's—health and survival. Ultimately, the survival of li is dependent on the continued life of its interacting cells, of cultured human beings, and the continuous life of human beings depends on the progression of li. The biological analogies are helpful because biologists necessarily focus their attention to what is around them, to what is immediate, and Chinese philosophers, especially Confucius and all the Daoists schools, have a profound sensitivity to the naturalness of human interaction, of finding ourselves in the “between-ness with others” as being constitutive of who and what we are in our contexts at hand. This aspect of the union of the human and heaven and the divinity of the everydayness of life and death is what this paper explores.

Key Words: Tian, li, dao, wen, emergence, patternings, self/other in-betweenness

# 天、地、自我：自我的碎形神性 Heaven-Earth-Self: The Fractal Divinity of Self

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## 摘要

中文裡的「天」一般譯為「heaven」，在理解中國宗教時會產生問題。在西方國家裡，「heaven」有太多的意含，因而無法準確而安全地傳達其意義。對孔子而言，在西方世界一般理解的地方，是找不到天的。在儒家的脈絡裡，甚至是在道家，天（Tian）是在人類社會行為所顯露的內在模式裡，這些模式不斷地表現為行動的外顯模式。對於孔子的社會體系觀念的延續、持存和紹述而言不合理的改變，會污染該體系，使得它的道統遭到破壞，而淪於毀滅性的改變、消滅和新秩序的興起的螺旋循環當中。

追求單一的、確定的秩序，是利用「禮」在生成歷程中的自然透顯，在適當的時機，會為了它的（以及社會有機體的）健康和存續而突變。最後，禮的存續端視於它的交互作用的細胞以及長養的人類的持續生命，而人類的永續生命則取決於「禮」的開展。這個生物學的類比很有助益，因為生物家都會注意他們周遭的直接事物，而中國哲學家，尤其是孔子和道家，都很強調在人類互動裡的自然性，在「人我之際」裡的自我，作為在眼前的環境裡自我定位的要件。天人合一的這個面向，以及日常生住異滅的神聖性，是這篇論文所要探討的。

關鍵詞：天、禮、道、文、外顯、模式化、人我之際。

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Two quotes from opposite sides of the world punctuate our beginning. The first is from Hölderlin, “The world is not poor enough to oblige us to search for a God outside of it” and the second from Dōgen, “People outside the way regard what is not self as the self. But what buddhas call the self is the entire universe. Therefore, there is never an entire universe that is not the self, with or without our knowing it. On this matter defer to the words of the ancient buddhas.”<sup>2</sup>

The philosophical issue of self-knowledge or problem of *knowing* one’s relationship with the world is typically a greater concern for Buddhists than it seems to be for Daoists. Buddhist sages more consciously struggle against the problems arising from a self strongly devoted to the integrity way of knowing and being, that is, our relationships are experienced as external and correspond to the fixed boundaries of our egos. Although I am, as a self, connected to others, this connection is an external one to the essential “me” and is made by the assertion of *my* free choice and personal volition. The Buddhist sense of self, however, becomes the paradigmatic model for what constitutes a self of intimacy. Out of intimacy, one understands knowledge as residing at the interface of self and world as Thomas Kasulis has pointed out.<sup>3</sup>

## SELF IN A FABRICATED WORLD

Once this important insight is realized, a Buddhist would likely conclude that there are no sets of universal philosophical propositions, scientific principles, and mystical beliefs that transcend human immersion in those approaches to knowing and ultimately to understanding truth. This means that our fabricated constructs for knowing ourselves and living in the world—such as the mind/body problem in philosophy and psychology, the pursuit of allopathic versus homeopathic or naturopathic medicine,” and various accounts of fundamental scientific theories—cannot stand as purely objective, or scholarly approaches to truth. From intimacy’s perspective such constructs could be seen as missing something about the interface of reality and self. Even our “universal” scientific understanding of evolution is beginning to blur as a wave of technological creation with the potential to alter the biosphere and our very selves has begun to arise—from molecular medicine, agricultural genetics, and artificial human organs to cloned animals and approaches to the threshold of artificial microbial life.<sup>4</sup>

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<sup>1</sup> This essay is adapted from *The Fractal Self: Coming of Age in an Intimate Universe* by John L. Culliney and David Jones.

<sup>2</sup> Hölderlin, Johann Christian Friedrich, *Werke und Briefen*, Band I. 300. Tanahashi, Kazuaki. 1985. *Moon in a Dewdrop: Writings of Zen Master Dōgen*. New York: North Point Press. 164.

<sup>3</sup> Kasulis adds, that “knowledge is embodied in persons embedded within their intimate community of praxis and knowledge. Studying the world entails studying oneself as well; it begins not with a polarity but in an *in medias res*. . . . In the intimacy model, . . . knowledge occurs where world and self intersect” (*Intimacy or Integrity: Philosophy and Cultural Difference*. 2002. Honolulu: University of Hawai’i Press. 103).

<sup>4</sup> See for example: Hylton, W.S., May 30, 2012. New York Times online: <http://www.nytimes.com/2012/06/03/magazine/craig-venters-bugs-might-save-the->

In Buddhist thinking, all is fine with the fabricated world as long as one culture, or cultural orientation, does not dominate others or when our ideas do not interfere in our direct experience of what constitutes the world. In the best of worlds (unfortunately far from what we see in our contemporary context) that thinking would constitute a sort of un-authoritarian global state of mind. In so many ways, however, Western cultural domination has swept across the planet, and this has been destructive because of the strong integrity emphasis of the West and its stance of superiority toward the perceived “inferior” *other*. Then, too, our behavior toward nature also reflects our grounding on the integrity—intimacy spectrum. Until very recently the prevailing Western outlook has been to view ourselves as supreme beings on the earth, to assert dominion and practice conquest of nature.<sup>5</sup> It is only gradually that many of us have come to the realization that a healthy biosphere is essential to our own survival and meaningful spirituality.

Buddhist insights on these questions of our pathways to knowledge, and also how we transform what we think we know into prescriptions for action, may even have a parallel with the uncertainty principle in particle physics. When we see ourselves as apart from the natural or cultural systems we seek to understand, we encounter an inevitable uncertainty—a block to deeper understanding of those systems. The Buddhist “uncertainty principle” extends to the human study of culture and nature at all scales, not just that of subatomic particles. From the standpoint of strong integrity, we cannot help but interfere with and change the systems we try to study because when we act as observers we are automatically outsiders, probing the system intrusively, disturbing and distorting its true nature and behavior.

Objectivity has been essentially the domain of Western science as it developed on the high ground of integrity, but a form of objectivity also emerges, or evolves in sagely practice in more intimacy-based cultures. In such cases, human decision-making can be objective and yet still remain personal—and this is precisely the epistemological value of availing ourselves of the intimacy way of knowing. Kasulis is helpful here when he points out that “personal objectivity” can be seen in any sport such as springboard-diving, gymnastics, figure-skating, and so forth where judges use their intimate knowledge of the sport for arriving at evaluations of performances. There is typically a high level of consistency displayed in the assessment of performance by experienced (and unbiased) judges. As Kasulis suggests, such “judges’ objective perceptions of subtle differences in the quality of style is not a knowledge that can be tested by

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world.html?pagewanted=all&\_r=0 Also: Annaluru, N., H. Muller, L. Mitchell, S. Ramalingam, G. Stracquadanio, S. Richardson, J. Boeke, and 74 others. 2014. Total synthesis of a functional designer eukaryotic chromosome. *Science* 344 (6179): 55-58

<sup>5</sup> Understanding of this sense of domination traces back to 1967. See Lynn White’s landmark article “The Historical Roots of Our Ecologic Crisis” in *Science* Volume 155, Number 3767 (March 10, 1967), 1203-12. White’s position is well represented in the *The Stanford Encyclopedia of Philosophy* entry by Brennan, Andrew and Lo, Yeuk-Sze, “Environmental Ethics,” *The Stanford Encyclopedia of Philosophy* (Fall 2011 Edition), Edward N. Zalta (ed.), URL = <<http://plato.stanford.edu/archives/fall2011/entries/ethics-environmental/>>. “According to White, the Judeo-Christian idea that humans are created in the image of the transcendent supernatural God, who is radically separate from nature, also by extension radically separates humans themselves from nature. This ideology further opened the way for untrammelled exploitation of nature.” “Modern Western science itself, White argues, was ‘cast in the matrix of Christian theology’ so that it too inherited the ‘orthodox Christian arrogance toward nature’” (White 1207).

just anyone.”<sup>6</sup> This perception is objective because it has been developed over years of practice, performance, and participation from within the affinitive activity.

This more personal and affective-objective way of knowing is what is drawn upon by Buddhist sages, priests, and masters. Out of their discursive ways of thinking and knowing, Zen masters employ a number of techniques to move their pupils to more profound and immediate levels of understanding the nature of self and the world. One such technique is the *koan*. Many have heard of Hakuin Zenji’s (1686-1769) famous koan, “What is the sound of one hand clapping?” From the objective world of integrity, such a question cannot have a logical answer in its most obvious context. But from the perspective of intimacy, the authenticity of the response can be gauged by the adept master. An intimately conditioned, yet personally objective, response is similar to what can also be seen in the context of the Daoist sage. Relying on his years of practice, Cook Ding cuts through the meat, cartilage, and so forth but he also cuts through the rigid layers of representational and conceptual ways of knowing. This emerges from a deeper level of knowing, for his fractal adeptness at “cutting through” connects his being to the world’s context at hand.

#### NO SELF APART

Developing this sense of authentic intimacy is to interpenetrate a world beyond the dualism of self and other or the framework of an integrity self where all relation is experienced as external. Such interpenetration is to realize one is part of “Indra’s Net” and its vast network of jewels that stretches out infinitely in all directions. Each jewel reflects the light of all the other jewels in the net making no individual jewel a light unto itself. All the entities in the Net are then seen as being interdependent. The English poet William Blake writes of this fractal congruence in his “Auguries of Innocence”:

To see a world in a grain of sand,  
And a heaven in a wild flower,  
Hold infinity in the palm of your hand,  
And eternity in an hour.<sup>7</sup>

Indra’s Net illustrates that the universe is interwoven and that the human self is just one jewel among infinite others simultaneously reflecting each other in the unbounded process of what is continuously happening. As an embedded being in the net of universal relations, the fractal self propagates a multidirectional reflection that may amplify across scale as it pulses through that individual’s particular world. Many things arise in this network of relations and the fractal self may well affect any number of cores of developing complexities as they begin to converge in a particular system. These complexities just may evolve if the right connections are in place. The idea is to engage the possibilities from within, even though one may be uncertain whether the effects will manifest and be propagated into the future. We might wish to see this as another manifestation of the Buddhist “uncertainty principle.” A fractal self could be anywhere,

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<sup>6</sup> Kasulis, Thomas P. 2002. 77.

<sup>7</sup> David V. Erdman, Editor. *The Complete Poetry & Prose of William Blake*, New York: 1988. 490.

at any level, in the expanse of Indra's Net and may play a role in the system's progressing.<sup>8</sup> Not only does such an interconnected self radiate new light into the world, it can potentially shape new cultural, social, and political realities as well.

This deeper connection of the intimacy self to the world at hand also applies to the Confucian side of the Chinese worldview where we find sensitivity to immediate context in human affairs. An individual's position in society is conditioned by much more than competitive ability and applications of appropriate knowledge. In the *Analects*, Confucius says "Consummate persons establish others in seeking to establish themselves and promote others in seeking to get there themselves. Correlating one's conduct with those near at hand can be said to be the method of becoming a consummate person."<sup>9</sup> Such correlation is fundamental not only to the Confucian social scheme and its "intimate community of praxis and knowledge"<sup>10</sup> and to the Daoists' focus on the self's becoming more naturally connected and is central to the Buddhists' approach to understanding the truth of the connectivity of all things within the conditionally changing universe. Such connectivity lies at the core of what it means to be an intimate being and a fractal self.

In comparing all major philosophical traditions, the Buddhist idea of the self is the most radical in its sense of intimacy. The strange-sounding doctrine of no-self, or *anatman*, is at the center of Buddhist thinking and practice. When the primal Buddhist doctrines of impermanence (*anicca*) and interdependent arising (*pratitya samutpada*) are applied to the self, *anatman* is the result. As the Buddha taught, the opposing idea of a permanent, abiding soul is the main source of delusion and the cause of suffering (*dukkha*). The problem of suffering, its causes and conditions, are of the utmost concern to the Buddhist practice and represents the core of the Buddha's teaching in the Four Noble Truths. Stated briefly, these four truths are" 1. Suffering (*dukkha*) exists; 2. There is a cause for suffering; 3. This suffering can be eliminated or "blown out" (*nirvana*); and 4. There is a pathway to accomplishing *nirvana* and this is the Eightfold Path, namely developing an intimate frame of mind in dealing with: view, intention, speech, action,

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<sup>8</sup> Indra's Net is developed most fully in the Mahayana sutra (or thread) known as the *Avatamsaka Sutra*, or *Flower Garland Sutra*, and provides us with a stunning depiction of reality. Why Indra, a warrior god found in the *Rig Veda* is used in this sutra perhaps represents our ongoing struggle against the seductive forces that lead us away from realizing the fundamental relationality of who and what we are and what we must become in order to affect a greater sensitivity to what we're ultimately a part of. When Buddhism made its way to China, Indra's Net would be a perfect metaphor for their conception of *wanwu* 萬物, which literally means the 10,000 things, a large number used in ancient times for all that is happening within the totality of what is. *Wanwu* is similar to the Greek *myrios* (μυρίοι), which also means the number 10,000 or endless. *Myrios* is where we get our word "myriad" from and hence often drives the translation of *wanwu* as the "myriad things."

<sup>9</sup> Ames, Roger T. and Rosemont, Henry, Jr. 1998. *The Analects of Confucius: A Philosophical Translation*. New York: Ballantine Books, 110. See 6.30. Translation slightly modified by rendering *ren* as "consummate person" instead of "authoritative person" to get at the interconnectedness we are discussing more fully. This modification is not a superfluous one since Ames and Rosemont are now often using the term consummate as well. For more discussion on this understanding of Confucian thought see David Jones and John L. Culliney. 1998. "Confucian Order at the Edge of Chaos." In *Zygon: Journal of Religion and Science*. 33:3, 395-404.

<sup>10</sup> Kasulis, Thomas P. 2002, 103.

livelihood, effort, mindfulness, and meditation.<sup>11</sup> In the Buddhist final analysis, this path alleviates the problem of suffering, chiefly the psychological need and intellectual demand for a soul. As the Dalai Lama explains the Buddhist position on soul:

If one understands the term “soul” as a continuum of individuality from moment to moment, from lifetime to lifetime, then one can say that Buddhism also accepts a concept of soul; there is a kind of continuum of consciousness. From that point of view, the debate on whether or not there is a soul becomes strictly semantic. However, in the Buddhist doctrine of selflessness, or “no soul” theory, the understanding is that there is no eternal, unchanging, abiding, permanent self called “soul.” That is what is being denied in Buddhism.<sup>12</sup>

As we seek a permanent and distinct immortal soul contained within our bodies, or even an individualistic spiritual sector of mind, we suffer the greatest illusion.

Our illusory quest for a substantial soul, the self of integrity in other words, then is at the very core of the problem of suffering for the Buddhist. In overcoming this seemingly obsessive human need and demand for a self so unrelated to anything else in the universe, the Buddhist analysis takes a much different direction in its investigation of what constitutes a self—one that the Scottish philosopher David Hume would also take much later in the 1700’s<sup>13</sup>—and this examination will ultimately give us the self of intimacy.

When we investigate the self beyond the ego and personality, according to the Buddhists, we find nothing but the five *skandhas* (this word literally means “heaps” or “bundles” and is usually translated as aggregates). In the Heart Sutra it is stated that “The Bodhisattva Avalokita, while moving in the deep course of Perfect Understanding, shed light on the five *skandhas* and found them equally empty.”<sup>14</sup> These *skandhas* are the material body and sense organs, sensations, perceptions, mental formations, and consciousness that are loosely bundled together. There is no self beyond these aggregates and their bundling is what constitutes our mistaken sense of self and deluded sense of being in the world.

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<sup>11</sup> For an accessible rendition of Buddhist practice see “The Foundations of Buddhism” chapter in the Dalai Lama’s book titled *Essence of the Heart Sutra*. 2002. Translated by Geshe Thupten Jinpa. Boston: Wisdom Publications. The Eightfold Path is discussed and contextualized on page 28 of the chapter.

<sup>12</sup> Quoted from *The Dalai Lama: Essential Writings*. 2008. Thomas A. Forsthoefel, Editor. Orbis Books: Maryknoll, New York, 69.

<sup>13</sup> See David Hume’s “On Personal Identity” in *Selections From: Enquiry Concerning Human Understanding and A Treatise of Human Nature*, Section VI. 1966, 257. Hume also believed that morality was based on feelings rather than abstract principles. The German philosopher Immanuel Kant was prompted to remark that David Hume had awoken him from his “dogmatic slumber.” Through Kant’s “awakening” we have become in so many ways inheritors of his moral theory that moves us away from such feelings as empathy to the universalization of ethical principles. In Kant’s case, this is the categorical imperative, which states one should “act only according to that maxim by which you can at the same time will that it be a universal law”(4:402).

<sup>14</sup> Hanh, Thich Nhat. 1988. *The Heart of Understanding: Commentaries on the Prajñāparamita Heart Sutra*. Berkeley: Parallax Press, 7.

In his translation of and commentary on the Heart Sutra, Thich Nhat Hanh provides a helpful analogy to explain the emptiness of self: The five *skandhas* are likened to rivers. A river represents each of the moieties: of form (body), feelings, perceptions, mental formulations, and consciousness. Each of these rivers is flowing within us and each is “empty of a separate self.” The meaning here is that “none of these five rivers can exist by itself alone. Each of the five rivers has to be made by the other four. In life, they have to co-exist; they have to inter-be with all the others” like the various organs in our bodies and the air in the lungs that enriches our blood and so on.<sup>15</sup> These flowing rivers, the five *skandhas*, flow together within and through each self.

Imagine the monk or nun in a monastery spending their day not only meditating and studying sutras but sweeping and raking leaves, cooking and cleaning dishes, growing and harvesting crops. Initially, they may mindfully perform their functions, making coordinated use of the *skandhas*; however, the activities later become meditative acts in themselves where the self then melds with its activity, where there is no longer a self that directs the performance of the chore, for one’s being is totally immersed in what one is doing. This original mindfulness is transformed as a doing without the mind’s involvement. Achieving this state, one becomes *wuwei* (in the same context as a Daoist would view one’s effortless melding with an affinitive system, or life-attractor), and to Buddhists such activity is *nirvana*, a blowing out of the self. And it is this blowing out that marks the end of our suffering.

#### POETRY OF THE INTIMATE SELF

A glimpse at the poetry of a famous Zen poet, Bashō, illuminates the no-self doctrine in meaningful and significantly aesthetic ways. As we can see in the sparse style of the *haiku*, chosen for its simplicity and directness toward the natural, the self is identified with the world in which it resides.

The sound of hail –  
I am the same as before  
Like that aging oak.<sup>16</sup>

The back story of this *haiku* is that a homeless Bashō enters his new hut, which was built by friends and disciples after a fire had destroyed his old one, and the sound of hail striking the roof brings about the realization that he has always been and somehow remains part of all that is. Just like the aging oak, he too is aging; his mother has recently died and his father was already dead, but in this aging he is somehow “the same as before.”<sup>17</sup> Although this is one of his earlier haikus, Bashō has already glimpsed that his self is no different from all the other myriad selves in the world of nature that stretch geographically and temporally throughout all that is constantly becoming. In expressing this, Bashō shows us a self of profound intimacy that is interwoven in the panorama of life.

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<sup>15</sup> Hanh. 1988, 7.

<sup>16</sup> Ueda, Makoto. 1982. *Matsuo Basho*. Tokyo: Kodansha International. 25. [1970. Twayne Publishers; First Edition]

<sup>17</sup> Ueda, Makoto. 1982. 25.



Often, the idea of a distinct and separate self is transcended and replaced by wholly natural images as we see in some further representative poems of Bashō.

orchid fragrance  
 from the butterfly's wing  
 perfuming the clothes<sup>18</sup>

A literal translation of the poem would read “orchid's fragrance / butterfly's wing from / incense to do” (*ran no ka ya / chō no tsubasa ni / takimono su*).<sup>19</sup> In the last line, *takimono* means the fragrant wood and other things used for incense and can even refer to firewood. Bashō in essence discovered the butterfly effect. Perhaps, like chaos theorists, he chose the butterfly because of its subtle fanning of wings compared to other creatures? The orchid's scent, incense, or the fragrance of firewood transform a human's clothing into something novel. Shamans and sages seek just this sort of transformation in a natural way, or *ziran* 自然, the spontaneous unfolding of the universe: they alter the world through their direct participation and intimate knowledge. This brings the possibility of emergence. The clothes now have a fragrance and there's no telling where that fragrance may lead—to a lover and generations of offspring, or to a whole new innovative series of events. Each particular (myriad) thing realizes its self-nature (*ziran*) through this process. The myriad things arise and are shaped by the interplay of the generative forces of yin and yang. Through shifting balances of these forces, the myriad things change their form. In other words, through the blending of the forces of yin and yang along the edge of chaos the self-generating emergence of reality, of nature, occurs.

Although the word “clothes” in Bashō's poem is not in the original language of the poem, the translation suggests the Japanese practice of fanning incense over washed clothing to give them a fragrance. By portraying the self in terms of intimate connectivity among the orchid, butterfly, and the human, Bashō reveals how Buddhist practice releases the individuated self into a potential endless web of communion throughout nature and human nature.

But this is only half of the story for Bashō for he urges us to see that the self is also channeled back into the natural process from which it has emerged because of its intimate relationship with the processes of the natural world. To have the butterfly transfer the perfume to the clothes requires human cooperation from an attuned self that can remain motionless. This recalls the Daoist sage “who does nothing and nothing is left undone.” To be patient, and await the butterfly to alight and walk around the clothes and to flap its wings brings the modification of the clothes from a simpler state to a more complex one. The human and the butterfly must merge in the moment, become one together, and only then does the perfume have the potential effect to create something emergent in a human life that was not present without this intimacy with nature.

## COMING HOME TO THE UNIVERSE

<sup>18</sup> Reichhold, Jane. 2008 *Basho: The Complete Haiku*. Tokyo: Kodansha International. 77.

<sup>19</sup> Reichhold, Jane. 2008. 270.

We began, like everything that is complex, as stuff created in stars, and we have come to the point where we have achieved the knowledge and power to willfully create the stuff of stars and more. As a succinct description of the 1952 test-explosion of the first megaton-range thermonuclear bomb, dubbed ‘Ivy-Mike,’ by U.S. scientists at Eniwetok Atoll has it, “Momentarily, the huge Mike fireball created every element that the universe had ever assembled and bred artificial elements as well.”<sup>20</sup> The yin and yang of such nascent capabilities in the human species—the destructive looming beside the constructive in our nature—requires of us both hope and vigilance. Leaving the butterfly on the wing, we might also focus hopefully with Bashō on water, a medium vital to all life. Humanity’s emergence on a threshold of godlike powers places us as a frog poised to make a splash in an old pond of the poet’s most famous haiku—

The old pond  
A frog jumps in  
The sound of water.

In this poem, we see what we’ve been seeing for some time now: how widely or universally connected the enlightened self may aspire to be. The claim should be clear now—this enlightened self is the fractal self, for the old pond we jump into is the universe. It’s an old universe, at least from our perspective of time, for we are the freshly arrived. We’ve come with a special and accelerating capacity to creatively participate in the future of this great pond, a small *homo sapiens*, but one, as it turns out, with immense potential to amplify the pond’s rippling once we’ve consciously chosen to enter it and explore its very depths. We know so very little about this universe that we call our home, and the questions for us now become how do we become comfortable in this home and what is the future of our species beyond the threshold on which we now stand?

With the Dalai Lama, a  
“revolution is called for, certainly. But not a physical, an economic, or even a technical revolution. We have had enough experience of these during the past century to know that a purely external approach will not suffice. What I propose is a spiritual revolution . . . . My call for a spiritual revolution is thus not a call for a religious revolution. Nor is it a reference to a way of life that is somehow otherworldly, still less to something magical or mysterious. Rather, it is a call for a radical reorientation away from our habitual preoccupation with self. It is a call to turn toward the wider community of beings with whom we are connected, and for conduct which recognizes others’ interests alongside our own.”<sup>21</sup>

What is suggested here is that this revolution aligns perfectly with the cooperative ethos in universal evolution. We’ve collectively arrived at a stage where we can jump into the universe, creating a splash with emergent potential. These ripples bring us perhaps full circle back to potency of the earliest ripples of the universe at recombination, the first stage of universal “enlightenment.”

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<sup>20</sup> Rhodes, R. 1995. *Dark Sun: The Making of the Hydrogen Bomb*. New York: Simon and Schuster (Touchstone paperbound). 509.

<sup>21</sup> Forsthoefel, Thomas A. 2008, 156.

However, the universe can still appear strange and indifferent to us as Stephen Crane, the American novelist and poet, knew when he wrote:

A man said to the universe:  
 “Sir I exist!”  
 “However,” replied the universe,  
 “The fact has not created in me  
 A sense of obligation.”

Although we have this huge potential, Crane reminds us we’re not home free. We should pay attention to Crane’s caveat and rein in our hubris and look carefully at the world around us. Ronald Pine echoes Crane’s reminder in his *Science and the Human Prospect* when he says that “we should not get too uppity about this; the universe will do just fine without us.”<sup>22</sup> Instead of thinking about ourselves in such grandiose ways and attuning ourselves to other worldly hopes, we need to attend to the future very close to home in its anticipation of ever increasing occurrences of droughts, fewer resources, continued economic and social disparity, an intensifying deep fear of the other, and an abysmal alienation of ourselves. If we can somehow bring ourselves to this juncture, this moment of crucial choice and consideration of what is present at hand, then we may begin to see, perhaps for the first time in any authentic and real sense, that we as a species now stand at a new threshold, a new dawning of time.

As a species we have ascended to a seminal status. We are poised at the very edge of Bashō’s pond. But if we reject those natural systems, processes, and cooperative instincts that brought us here in the first place, we’ll turn our backs on the evolutionary progression that transported us forward as beings embedded within the world. We can thumb our noses at the cooperative constant, and retreat still further into the unproductive and uncreative stasis of ultimate integrity—we can become anti-conservation and destructively conservative in protecting our narrow self-interest at the expense of the home in which we live and the process that breeds complexity and fosters emergence. We clearly have this dark option, and many seem to be pursuing it as we will see in the next chapter.

These realizations lead to a new interpretation of the classic concept of free will. This free will that now confronts us so urgently is not the age old free will of metaphysical libertarianism, meaning the appearance of freedom given to humans by an omnipotent God who supposedly wanted individuals to be agents of choice. The sense of free will advocated here comes closer to what Thich Nhat Hanh has stated in a number of contexts: “Freedom is not given to us by anyone; we have to cultivate it ourselves. It is a daily practice... No one can prevent you from being aware of each step you take or each breath in and breath out.” Awareness, and becoming aware, is the freedom of the *fractal self*; it is a freedom of intimacy and the realization of our potential to willfully remain within the evolutionary process and become the process’ compassionate benefactor. To choose the opposite is to follow the ways of strong integrity and accede in the authoritarian drive toward domination over other species and members of our own. It’s to choose the path of aggressive competition where we continue to unsustainably consume the resources of

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<sup>22</sup> Pine, Ronald. 1989. *Science and the Human Prospect*. Belmont, CA: Wadsworth, 243.

the earth, exploit each other, and adhere to authoritarian and fundamentalist religious practice. These paths are likely ways to self-destruction and extinction.

No other species has ever had this choice. Either way, we are destined to make a significant earthly difference, perhaps this difference is even cosmic, we can't know. Hopefully, we are capable of applying that free will by following the model of the *fractal self*, a self that engages in cooperative enterprises in accord with and support of the evolutionary process and moves us to embrace the emergent potential that can arise from our ripples in the old pond.

A fractal self always finds itself in between its self and others, and here we mean all others including animals, plants, and even those supportive landscapes and seas that comprise the earth's biosphere. Finding oneself among all things is the starting point, the moment of blending, and the place of becoming embedded in the unfolding flow. Yet the fractal self will also need some integrity to jump into Bashō's pool of intimacy. Intimacy and integrity should not be regarded as absolutes that exclude each other because they are more nuanced in their complementary nature and a balance needs to be struck, like the balance of *yin* and *yang* that gives rise to *dao*. Robert Aiken suggests in his commentary<sup>23</sup> on the old pond and Bashō's frog poem that we find ourselves in twilight, a time that hints that human action is in the middle of the two poles of integrity and intimacy. The time of twilight; it is a magic time where a peaceful and quieting calm descends upon the earth.

Aiken points out in his *A Zen Wave: Bashō's Haiku and Zen* that *mizu no oto* (water's sound) in the last line Bashō's poem is onomatopoeic (just like the English "plop") and suggests the parody of the poem by Gibon Sengai (1750-1837) should be understood as being most instructive:

The old pond!  
Bashō jumps in,  
The sound of water!<sup>24</sup>

Bashō has become the frog, is the frog, because all of us are potentially this frog, newly arrived at the edge of the ancient pond, a pond mossy at the edges "and probably a little broken down."<sup>25</sup> The sound of our splashing into the pond is an echo of all that resides between us and our larger world. We can cause profound effects through our human actions as they ripple outward into the unknown future. As a species, we have a calling from the universe that no other species has ever heard before.

In comparing Bashō's pond to the Bodhi tree under which the Buddha gained his enlightenment, Aitken in the long tradition of Zen warns against the trap of quietism—some kind of mystical union with all that is and a place of stasis, a frozen zone—when he writes that "...remaining indefinitely under the Bodhi tree will not do; to muse without emerging is to be unfulfilled."<sup>26</sup> The enlightened self must enter the world, and this entering the world as an intimate participant is definitive of the fractal self. The choice is now ours.

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<sup>23</sup> Aiken, Robert. 1978. *A Zen Wave: Bashō's Haiku and Zen*. Washington D.C.: Shoemaker & Howard, 4.

<sup>24</sup> Aiken, Robert. 1978, 5

<sup>25</sup> Aitken, Robert. 1978, 4

<sup>26</sup> Aiken, Robert. 1978, 7.

### ULTIMATE COMPASSION AND FREEDOM

Contrary to some popular conceptions, Buddhism is not merely some kind of romantic and mystical union with the world. The Buddha was unmistakable and unwavering in his realization that the appropriate way of living needed to reach out to others as the self extends outward into the world. As he rose from under the Bodhi tree a week after noticing the morning star, the Buddha proclaimed “now I view all beings everywhere.”<sup>27</sup> Our reaching out must include compassion for other selves, including nonhuman selves. We can see how this type of reaching out can take presence in the Buddhist approach to living fractally with a global sense if we listen briefly to Thich Nhat Hanh, the passionate, clear voice of living as an inter-being. In his *The Heart of Understanding: Commentaries on the Prajnaparamita Heart Sutra* we see how understanding our fractal connectedness is a prerequisite for living a life of compassion and understanding.

If we look into this sheet of paper even more deeply, we can see the sunshine in it. If the sunshine is not there, the forest cannot grow. In fact, nothing can grow. Even we cannot grow without sunshine. And so, we know that the sunshine is also in this sheet of paper. The paper and sunshine inter-are. And if we continue to look, we can see the logger who cut the tree and brought it to the mill to be transformed into paper. And we can see the wheat. We know that the logger cannot exist without his daily bread, and therefore the wheat that became his bread is also in this sheet of paper. And the logger’s father and mother are in it too. When we look in this way, we see that without all of these things, this sheet of paper cannot exist.<sup>28</sup>

Thich Nhat Hanh knows there is so much more in this sheet of paper than what he says in a short paragraph, for there is the cloud and its rain in the sheet as well as the parents of the parents of the logger and there is the bubbling of that ultra-dense plasma gas that started the universe and built the nuclei that captured many of the photon-retarding, free electrons that formed the first true atoms. Those nuclei, their electrons, the fleeting photons, and all the emergent properties of our extant universe are present in the paper. Looking more deeply into this sheet of paper “we can see we are in it too. . . . So we can say that everything is in here with this sheet of paper. You cannot point to one thing that is not here—time, space, the earth, the rain, the minerals in the soil, the sunshine, the cloud, the river, the heat. Everything co-exists with this sheet of paper. . . . ‘To be’ is to inter-be.”<sup>29</sup> Hence the question for us in the 21<sup>st</sup> Century is not the existential one of the past, “To be, or not to be.” Our question is a different one, and even more challenging, “To Inter-be, or not to be.” Our choice is no longer just an individual one pertaining to our self-interest for a meaningful life, but a special one not only of and for our species, but for all species and the process of universal evolution. It is a worthy task, a great burden for our species perhaps, but certainly our greatest challenge as a species to seek a future through the disciplined application of our free will.

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<sup>27</sup> Aitken, Robert. 1978, 6.

<sup>28</sup> Hanh. 1988, 4.

<sup>29</sup> Hanh. 1988, 4.

As we've seen, this freedom defines the choice between the will of the ego and the will of and for the whole. Choosing to remain in the cohesive evolutionary process is to define the self as an internal participant among many others. A type of sagely partnership arises when the fractal self is embedded in the flow of nature and compassionately concerns itself with being a part of that momentum. This process is a divine one, but not with God as Creator. The sacredness of this process is the miracle of life itself through the affirmation of the fortuitous occurrences that present themselves at junctures of time as opportunities for emergence. As Stuart Kauffman has urged in his *Reinventing the Sacred*, "Let God be our name for the creativity in the universe. Let us regard this universe, all of life and its evolution, and the evolution of human culture and the human mind with awe and wonder."<sup>30</sup>

This type of thinking and feeling was not, however, entirely alien to the West before Kasulis' realization. For example, Novalis (1750–1822), the German poet, author, and philosopher, averred that even philosophy itself "is really homesickness, an urge to be at home everywhere." Later German thinkers of intimacy such as Nietzsche, Heidegger, and the French philosopher Merleau-Ponty also expressed similar views when they talked about "how the 'true' world became a fable" (Nietzsche), "the world-hood of the world" (Heidegger), and the "flesh of the world" (Merleau-Ponty).<sup>31</sup>

Moreover, if we freely facilitate this sacred process we continue to participate in the cooperative constant that makes complex emergence and life possible. As a species, our choice is, once again, to learn to *inter-be*, and to learn to do so is to understand deeply that "the sunshine is also in this sheet of paper" and that even though the cloud disappears after it rains the cloud is still in the rain, and the rain and cloud are in the plant after its transpiration process. We too are like the cloud and rain and the fear of our own personal deaths is just the ego perspective of the isolated self of integrity asserting its existential crisis in a universe it fails to understand.<sup>32</sup>

To experience the self in this interrelated manner is to become fully conscious of others, whether they are members of our own species or other species, and realize the need for living and dying compassionately. Thus compassion, or *karuna*, represents the pinnacle of Buddhist practice. To extend ourselves through compassion is to experience the *pathos* of life and death with all of the world's beings; compassion means to become an inter-being and as this kind of being we are held together by our subjectivity in an ecumenical web among other subjectivities in the world such as animals, plants, and stones. Ontologically speaking, there is nothing in the world (or universe) beyond interdependent arising—that is, constantly changing, impermanent, self-less processes where nothing exists separately by itself without being conditioned by other things.

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<sup>30</sup> Kauffman, Stuart. 2008. *Reinventing the Sacred*. New York: Basic Books, 232.

<sup>31</sup> For Nietzsche on "how the 'true' world became a fable" see *Twilight of the Idols: or How to Philosophize with a Hammer*. 2009. Translated by Duncan Large. New York: Oxford University Press. For Heidegger on "the world-hood of the world" see *Being and Time: A Revised Edition of the Stambaugh Translation*. 2010. Translated by Joan Stambaugh and revised by Dennis J. Schmidt. Albany: State University of New York Press. And for Merleau-Ponty on the "flesh of the world" see *The Visible and Invisible* 1969. Translated by Alphonso Lingis. Chicago: Northwestern University Press.

<sup>32</sup> Thich Nhat Hanh frequently uses the analogy of the cloud and rain in relation to the fear of death and this analogy is borrowed here.

Again, this is the idea of *sunyata*, or emptiness, a lesson well learned intellectually from ecology and subjectively from our associations with other people, non-human animals, plants, and stones. Although we are beginning to visit these perspectives scientifically, there is a deeper religious dimension that Buddhists have always seen as being a part of the spirit of the Buddha's enlightenment.

Buddha Sâkyamuni, the original Buddha, attained enlightenment because he had direct experiences of the reality of life and death. Through this direct communion he became an inter-being with all the other beings that connected him—as through a sheet of paper—to the universe at large. To achieve compassion, we must enter ourselves and empathically extend into the experience of the other. For Dōgen, the great Japanese Zen Buddhist philosopher, Buddha-nature is the experiential presence of impermanence itself. All things are impermanent, and to profoundly experience this reintegration of the self into its eternal fluid field is to find a teacher in what we would call nature, that is, the ultimate reality that includes even such nonsentient beings as stones. When Dōgen titles a chapter “Mountains and Waters as Sutras” in his masterpiece the *Shōbōgenzō* and writes in another that “The sutras are the entire universe, mountains and rivers and the great earth, plants and trees” (*Jishō zammai*), he makes even more explicit the Buddha's pronouncements on the (enlarged) nature of the self and truth, the *dharma*, of all that is, including the self.<sup>33</sup>

An example of this universal sense of self and its potential for compassion is cast in a deceptively negative way in the *Diamond Sutra*:

However many species of living beings there are—whether born from eggs, from the womb, from moisture, or spontaneously; whether they have form or do not have form; whether they have perceptions or do not have perceptions; or whether it cannot be said of them that they have perceptions or that they do not have perceptions, we must lead all these beings to the ultimate nirvana so that they can be liberated. And when this innumerable, immeasurable, infinite number of beings has become liberated, we do not, in truth, think that a single being has been liberated.<sup>34</sup>

The suggested meaning here is that all must be liberated inclusively; owing to the connectivity of all things, no entity can be liberated individually. The liberation spoken about in this sutra refers to the freedom to become what we are in conjunction with all others—this is the free will of the fractal self. There is nothing particularly mystical or transcendent about this realization. This lack of mysticism and transcendent intent has led some Buddhist thinkers such as Nagarjuna (c.150-c.250), who is often referred to as the “Second Buddha” by Mahayana Buddhists, to assert that *nirvana* is *samsara* and that *samsara* is *nirvana*, that is, the realization of the ceaseless flow and change of the universe is to blow out the flame of desire, attachment, self-aggrandizement—*nirvana* is simply independent arising (*pratitya samutpada*).<sup>35</sup> *Samsara* refers to an early concept

<sup>33</sup> For a collection of essays on Buddha-nature in this vein see David Jones, ed. 2007. *Buddha Nature and Animality*. Fremont, CA: Jain Publishing.

<sup>34</sup> Hanh, Thich Nhat. 1992. *The Diamond That Cuts Through Illusion*. Berkeley: Parallax Press, 4.

<sup>35</sup> Nagarjuna. *Mulamadhyamakakarikas*. (M 25: 19-20). Trans. in Frederick I. Streng. *Emptiness: A Study in Religious Meaning*. 1967. Nashville: Abingdon Press.

from pre-Buddhist India. It is the “wheel of rebirth”—the recovery of the world after destruction.

#### CREATION AND DESTRUCTION: AN INTIMATE CONNECTION

Considering the equation of samsara and nirvana, Buddhist ecologists would tend to think of biotic succession through time as a natural community self-organizes and develops its diversity and richness of form and function after a disturbance. For example, when a glacier melts, or a lava flow cools and crumbles, a forest begins to develop and eventually burgeons into a complex, coordinated ecosystem. This recovery could also be called the “Shiva/Pele Principle” because it leads to the rebirth of more creative complexity (also see Chapter 4).

All “creation” also has a profound intimacy with its opposite of destruction or decay, all yin has a yang, and all yang a yin. The fact that everything decays was known by many before the advance of science. For example, in nature the waste products from all organisms become food for others. This process of biodegradation in nature, which wastes nothing material since all matter is ultimately recycled, provides the nutritional basis for the process to move along. One could term this process “creative destruction.”

We should be strongly reminded of the god Shiva of Hinduism—Shiva is the god who destroys the ego and self of integrity. Shiva is multifarious in form, sometimes with five heads that symbolize all that perishes and that is timeless. Shiva creates, but all creation is dependent upon the destruction of what came before. This change, this flowing of all things, is Shiva’s dance, a dance of life and death, death and life, evoking ecological succession. His dance is creation, destruction, and recreation in the unfolding of the universe. Shiva flirts with the edge of chaos, much like the previous trickster gods of multiple myths around the world. He moves between life and death, reflecting the cycle of renewal. He dances on an infant, not as an act of anger and wrath, but rather through an understanding of the close relation between the old and new, the past and future.



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Shiva’s dance is similar to Pele’s: as the Hawaiian goddess of the volcano she evokes powerful choreographies in hula dedicated to her destructive fire and the creation of the Hawaiian Islands.





Pele is the *akua*, a divine being who is the embodied manifestation of the creative power of volcanoes. To some she appears as the spirit of a lava flow. One of her titles is *Akua lehe`oi*, or the sharp-lipped goddess, as she consumes even rocks and trees.<sup>36</sup> However, while destroying everything in its path, Pele's lava provides for the future. In time the lava will slowly be transformed into rich soil and from the soil new plants will grow after seeds drop from birds or out of the wind to await the arrival of rain and sun. When Bashō writes that he is "the same as before . . . like that aging oak" he reenters the dance of Shiva and grows in Pele's wake; a philosopher might call this is the ordinary moment of the Buddhist doctrine of interdependent arising and a scientist would affirm the interconnectedness of all things, tracing back to the Big Bang.

To a Buddhist the true reality of all that exists has been in front of our faces everywhere and from the very beginning, as on Thich Nhat Hanh's piece of paper. Moreover, this realization has a liberating effect on the self; the self is now free of its delusional isolation, the profound and constant source of suffering for humans. But we've never been isolated at all. We are connected back to the elemental. We move through the present with a real hope for meaningful participation in future universal arrangements. As Zen Master Dōgen writes, "To study the buddha way is to study the self. To study the self is to forget the self. To forget the self is to be actualized by myriad things."<sup>37</sup>

What we do with our time on the planet in accord with the cooperative constant has far reaching consequences, perhaps consequences beyond our present understandings. Writ large, the Buddhist approach to ultimate compassion might view the universe as a profoundly interconnected arena of succession, and a fractal self seeks linkage with components of that succession and thus the potential to participate constructively in the universal community. The Buddha ends the *Diamond Sutra* with this *gatha*, or poetic verse.

All composed things are like a dream,  
A phantom, a drop of dew, a flash of lightning.  
That is how we meditate on them,  
That is how to observe them.<sup>38</sup>

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The classic Buddhist view of humanity embedded in nature recognizes the evolutionary milestone of the fractal self that has emerged in our time. We cannot know the detailed unfolding of the future, but we can sense the power and the glory of the cooperative constant out of which matter and energy have assembled the magnificent complexity of the cosmos and brought us to the unique stance we assume among life forms. The Buddhists understand that the "composed things" that preoccupy and even obsess so many of us are ephemeral. What counts most in our lives is careful consideration of the consequences of our free will and the exercise of our evolved morality toward others, leading to the sensibilities and affinities that we develop across scale

<sup>36</sup> See for example [http://www.kumukahi.org/units/ke\\_ao\\_akua/akua/pele](http://www.kumukahi.org/units/ke_ao_akua/akua/pele).

<sup>37</sup> Tanahashi, Kazuaki. 70. *Moon in a Dewdrop: Writings of Zen Master Dōgen*. North Point Press. New York: 1985.

<sup>38</sup> Hanh. 1992, 25.

within society and nature. We will prosper in the future only to the extent that we choose to sustain the progressive edge between intimacy and integrity, the source of constructive engagement with our world: from family harmony all the way to international well-being and biospheric sustainability. If we persevere, work to become sagely in our connectivity, seek congruence with our constructive passions, we follow the way of the fractal self. As we have seen, this path continues the trend of evolution that has fostered emergence since the beginning of the universe. Choosing to follow the path blazed by the Daoists, mapped by the Buddhists, and confirmed by complexity science and modern sociobiology leads toward a potential of higher, harmonic human expression beyond our own brief time.

Nevertheless, a caveat needs to be aired. Major pathways of natural and cultural evolution, never predictable in any detailed sense, likewise perhaps have never been smooth. Emergence has sometimes revealed a dark side, turning toward simplicity, deep chaos, and destruction. Earlier in our book we have hinted at this phenomenon as a function of the hegemony of integrity, taken toward the extreme. Human nature has spawned horrific examples of the consequences of releasing this dark cultural energy. In our time, it threatens our lives, our future, and much of the life on our planet more than ever before, often beginning with intimacy urged for here—and this can even be seen in Buddhism with the mass exodus of Rohingya Muslims from western Myanmar (a predominately Buddhist country) and Buddhist Bhutan’s ethnic cleansing of the Hindu Lhotsampa minority of Nepalese origin. There has also been a resurgence of Sinhala-Buddhist nationalism in Sri Lanka against the Tamils.<sup>39</sup> In these rather rare cases for Buddhists, even the most cherished compassionate precepts can be overridden by deep seated enmities against the other.

We, as selves of our species, need to change focus from how the perversion of the gifts of the fractal self on the social stage can bring dire consequences to the world toward compassion, cooperation, and intimacy; we desperately need to redefine ourselves as the spiritual beings we are in the spectrum of earth-heaven-heaven-earth. And we must relearn what we sensed early on in our embedded state of natural intimacy that “the only angels there ever were—apart from the crystalline variety—are animals, wild animals, so that there are still angels galore, even as an encroaching civilization systematically snuffs them out.”<sup>40</sup> We must mindfully evolve with the universe before it’s too late.

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<sup>39</sup> For a sense of the situation in Myanmar see <http://www.bbc.com/news/magazine-22356306> and for Bhutan and Sri Lanka see <http://www.thenation.com/article/174104/buddhist-violence-burma>.

<sup>40</sup> David Farrell Krell. “Creative Solitudes” in *Creative Solitudes: Companions to David Farrell Krell’s Oeuvre*. Edited by David Jones. Forthcoming.