

# We Live in a Living Universe

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*In the history of the collective as in the history of the individual,  
everything depends on the development of consciousness.*

--Carl Jung

*The whole of life lies in the verb seeing.*

--Teilhard de Chardin

## **Humanity's Fourth Awakening**

In the previous chapter, we considered powerful adversity trends that are pushing humanity toward an evolutionary crash. In the next four chapters, we turn to consider equally powerful opportunity trends that are pulling us toward a positive future—an evolutionary bounce.

The first opportunity trend that could transform our impending crash into a spectacular bounce is a shift in our shared view of the universe—from thinking of it as dead to experiencing it as alive. In regarding the universe as alive and ourselves as continuously sustained within that aliveness, we see that we are intimately related to everything that exists. This startling insight—that we are cousins to everything that exists in a living, continuously regenerated universe—represents a new way of looking at and relating to the world and overcomes the profound separation that has marked our lives. From the combined wisdom of science and spirituality is emerging an understanding that could provide the perceptual foundation for the diverse people of the world to come together in the shared enterprise of building a sustainable and meaningful future.

For some, a shift in perception may seem so subtle as to be inconsequential. Yet, all of the deep and lasting revolutions in human development have been generated from just such shifts. Only three times before in human experience has our view of reality been so thoroughly

transformed that it has created a revolution in our sense of ourselves, our relationships with others, and our view of the universe. I want to mention these briefly here and then explore them more fully later (in Chapter 8, Humanity's Central Project).

The first transformation in our view of reality and identity occurred when humanity "awakened" roughly 35,000 years ago. The archeological record shows that the beginnings of a reflective consciousness emerged decisively at this time as numerous developments were occurring in stone tools, burial sites, cave art, and migration patterns. Because we were just awakening to our capacity for "knowing that we know," we were surrounded by mystery at every turn. Nonetheless, human culture was born in these first glimmerings of personal and shared awareness.

The second time our view of reality and human identity changed dramatically was roughly 10,000 years ago when humanity shifted from a nomadic life to a more settled existence in villages and farms. It was mid-way during the agrarian period, roughly 5,000 years ago, that we see the rise of city-states and the beginnings of civilization.

The third time that our perceptual paradigm transformed was roughly 300 years ago, when the stability of agrarian society gave way to the radical dynamism and materialism of the scientific-industrial era. Each time that humanity's prevailing paradigm has changed, all aspects of life have changed with it, including the work that people do, the ways they live together, how they relate to one another, and how they see their role in society and place in the universe.

A paradigm is our way of looking at and thinking about ourselves and everything around us. It is the frame of mind out of which we operate. Our paradigm sets the limits on what thoughts we can think, what emotions we can feel, and what reality we can perceive. Willis Harman, renowned futurist, described a paradigm as "the basic way of perceiving, thinking, valuing, and doing associated with a particular vision of reality."<sup>1</sup> A paradigm tells most people, most of the time, what's real and what's not, what's important and what's not, and how things are related to one another. A paradigm is more than a dry mental map—it is our window onto the world that shapes how we see and understand the nature of reality, our sense of self, and our feelings of social connection and purpose.

We are now living at a time when humanity's perceptual paradigm is undergoing one of its rare shifts, and that shift has the potential to dramatically transform life for each of us. A paradigm shift therefore goes to the core of people's lives. It is much more than a change in ideas and how we think. It is a change in our view of reality, identity, social relationships, and

human purpose. A paradigm shift can be felt in the body, heart, mind, and soul.

How do paradigm shifts occur? Paradigms operate beneath the surface of popular culture, largely unnoticed until the old way of perceiving begins to generate more problems than it solves. These problems then become the catalyst for triggering the shift to the next paradigm, which opens up new opportunities. When we first enter a new civilizational paradigm (such as during the shift from the agricultural era to the industrial era), we experience new freedoms and creative potentials. As we fulfill the potentials of that paradigm, however, it eventually becomes a constricting framework. Its partial or incomplete nature leads to a crisis, which in turn leads to a breakthrough into the next, more spacious paradigm, in which a new level of learning and creative expression can unfold.

The paradigm of the scientific-industrial era, while it has afforded great benefits, is now generating far more problems than it is solving. These problems are catalysts for a paradigm shift. They are forcing us to expand our perceptual horizons to a higher and more inclusive level. Albert Einstein described a paradigm shift by saying that we cannot solve problems at the same level at which they are created.

The new paradigm that is emerging represents a convergence of insights from modern science and the world's spiritual traditions. At the heart of the new paradigm is a startling idea—that our cosmos is not a fragmented and lifeless machine (as we have believed for centuries) but is instead a unified and living organism. Although it is new for our times, the idea that the universe is alive is an ancient one. More than two thousand years ago, Plato described the universe as “one Whole of wholes” and “a single Living Creature which encompasses all of the living creatures that are within it.”<sup>2</sup> What is unprecedented is how this notion is being informed today by both modern science and the world's diverse spiritual traditions. Let us look at the evidence from both these sources, beginning with recent scientific discoveries. Later in this chapter, we shall explore the implications of this paradigm shift, and the opportunity it presents for imagining and building a sustainable future.

## **Scientific Evidence of a Living Universe**

Less than a hundred years ago, when Einstein was developing his theory of relativity, he considered the universe a static, unchanging system no larger than the cloud of stars that we now know to be our galaxy. Today, we know that the universe is expanding rapidly and contains at least 50 billion galaxies, each with a 100 billion or more stars. What is more, we now know that

our cosmos embodies an exquisitely precise design. Researchers have calculated that if the universe had expanded ever so slightly faster or slower than it did (even by as little as a trillionth of a percent), the matter in our cosmos would have either quickly collapsed back into a black hole or spread out so rapidly that it would have evaporated. Beyond these surprising findings are even more extraordinary conclusions that, taken together, suggest our universe is a living system.

Although there is no clear agreement among scientists as to what constitutes a living system, it seems reasonable that if our cosmos is alive, it would exhibit specific properties that are characteristic of all life—such as being a unified entity, having some form of consciousness, and being able to reproduce itself. As we shall explore, these are among the properties of our universe that are emerging from modern science.

**The cosmos is a unified system.** Physicists used to view our universe as being composed of separate fragments. Today, however, despite its unimaginably vast size, the universe is increasingly regarded as a single functioning system. Because other galaxies are millions of light-years away, they appear so remote in space and time as to be separate from our own. Yet, scientific experiments show that things that seem to be separate are actually connected in fundamental ways that transcend the limitations of ordinary space and time.<sup>3</sup> Described as “nonlocality,” this is one of the most stunning insights from modern science. Even though we live in a world of apparent separation, the new physics describes the more fundamental reality as that of seamless interconnection. Physicist David Bohm says that ultimately we have to understand the entire universe as “a single undivided whole.”<sup>4</sup> Instead of separating the universe into living and nonliving things, Bohm sees animate and inanimate matter as inseparably interwoven with the life-force that is present throughout the universe, and that includes not only matter, but also energy and seemingly empty space. For Bohm, then, even a rock has its unique form of aliveness. Life is dynamically flowing through the fabric of the entire universe.<sup>5</sup>

Our home galaxy—the Milky Way—is a swirling, disk-shaped cloud containing a hundred billion or so stars. It is part of a local group of 19 galaxies (each with a hundred billion stars), which in turn is part of a larger Local Supercluster of thousands of galaxies. This supercluster resembles a giant many-petaled flower. Beyond this, astronomers estimate that there are perhaps a hundred billion galaxies in the observable universe (each with a hundred billion or so stars). Scientists and spiritual seekers alike ask the question; If this is a unified

system, then could all this be but a single cell within a much greater organism?<sup>6</sup>

**It contains immense amounts of background energy.** In the new view of reality, an extraordinary amount of energy permeates the cosmos. Empty space is not actually empty. Even in a complete vacuum, there exist phenomenal levels of background energy called “zero point energy.” Bohm calculated that a single cubic centimeter of “empty space” contained the energy equivalent of millions of atomic bombs.<sup>7</sup> This is not simply a theoretical abstraction. A number of people are working to create energy devices that can tap into this background energy. Our universe is permeated by and exists within a vast ocean of flowing life energy.

**The cosmos is continuously regenerated.** For decades, the dominant cosmology in contemporary physics has held that creation ended with the Big Bang some 12 billion years ago and that, since then, nothing more has happened than a rearranging of the cosmic furniture. Because traditional physicists think of creation as a one-time miracle from “nothing,” they regard the contents of the universe—such as trees, rocks, and people—as being constituted from ancient matter. In sum, the dead-universe theory assumes creation occurred billions of years ago, when a massive explosion spewed out lifeless material debris into equally lifeless space and has, by random processes, organized itself into life-forms on the remote planet-island called Earth.

In striking contrast, the living-universe theory describes the cosmos as a unified system that is completely recreated at each moment. Unlike traditional physicists who believe that creation ended with the miraculous birth of the cosmos billions of years ago, living universe theorists hold that the cosmos continues to be maintained, moment by moment, by an unbroken flow-through of energy. They compare the cosmos to the vortex of a tornado or a whirlpool, as a completely dynamic structure. David Bohm calls the universe an “undivided wholeness in flowing movement.”<sup>8</sup> In this view, our universe has no freestanding material existence of its own. The notion of continuous creation is even more remarkable when we consider that it includes not only matter but also the fabric of seemingly “empty” space. Space is not a simple emptiness waiting to be filled, but is itself a dynamically constructed transparency. Therefore, the entire cosmos is being regenerated at each instant in a single symphony of expression that unfolds from the most minute aspects of the subatomic realm to the vast reaches of thousands of billions of galactic systems. The whole cosmos, all at once, is the basic unit of creation.

It utterly overwhelms the imagination to consider the size and complexity of our cosmos with its billions of galaxies and trillions of planetary systems, all partaking in a continuous flow of creation. How can it be so vast, so subtle, so precise, and so powerful? Metaphorically, we inhabit a cosmos whose visible body is billions of light years across, whose organs include billions of galaxies, whose cells include trillions of suns and planetary systems, and whose molecules include an unutterably vast number and diversity of life-forms. The entirety of this great body of being, including the fabric of space-time, is being continuously regenerated at each instant. Scientists sound like poets as they attempt to describe our cosmos in its process of becoming. The mathematician Norbert Wiener expresses it this way: “We are not stuff that abides, but patterns that perpetuate themselves; whirlpools of water in an ever-flowing river.”<sup>9</sup> Physicist Max Born writes, “We have sought for firm ground and found none. The deeper we penetrate, the more restless becomes the universe; all is rushing about and vibrating in a wild dance.”<sup>10</sup> Physicist Brian Swimme tells us, “The universe emerges out of an all-nourishing abyss not only 12 billion years ago but in every moment.”<sup>11</sup>

The new physics allows us to see everything in the cosmos as a flowing movement that co-arises along with everything else, moment-by-moment, in a process of continuous regeneration. If all is in motion at every level, and all motion presents itself as a coherent and stable pattern, then all that exists is profoundly orchestrated. All flows comprise one grand symphony in which we are all players, a single creative expression—a uni-verse.

**Freedom is at its foundations.** Another shift in the scientific view of the universe has to do with views about the existence of freedom. Whereas traditional physicists have seen the cosmos as being like a clockwork mechanism that is locked into predetermined patterns of development, the new physics sees it as a living organism that has the freedom and spontaneity to grow in unexpected ways. Freedom is at very the foundation of our cosmos. Uncertainty (and thus freedom) is so fundamental that quantum physics describes reality in terms of probabilities, not certainties. No one part of the cosmos determines the functioning of the whole; rather, everything seems to be connected with everything else, weaving the cosmos into one vast interacting system. Everything that exists contributes to the cosmic web of life at each moment, whether it is conscious of its contribution or not. In turn, it is the consistency of interrelations of all the parts of the universe that determines the condition of the whole. We therefore have great freedom to act within the limits established by the larger web of life within which we are

immersed.

A living universe is a learning system in which we are free to make mistakes and to change our minds. In other words, if the universe is being continuously recreated, then each moment provides an opportunity for a fresh start. This is how the philosopher Renee Weber describes the creative and experimental nature of the universe: “Through us, the universe questions itself and tries out various answers on itself in an effort—parallel to our own—to decipher its own being.”<sup>12</sup> Every moment, the universe recreates itself and provides us with an opportunity to exercise our basic freedom to do the same.

**Consciousness is present throughout.** Consciousness, or a capacity for knowing, is basic to life. If the universe is alive, we should therefore find evidence of some form of consciousness operating at every level—and that is exactly what we find. The respected physicist Freeman Dyson writes this about consciousness at the quantum level: “Matter in quantum mechanics is not an inert substance but an active agent, constantly making choices between alternative possibilities. . . . It appears that mind, as manifested by the capacity to make choices, is to some extent inherent in every electron.”<sup>13</sup> This does *not* mean that an atom has the same consciousness as a human being, but rather that an atom has a reflective capacity appropriate to its form and function.

Consciousness is present even at the primitive level of molecules consisting of no more than a few simple proteins. Researchers have found that such molecules have the capacity for complex interaction that is the signature of living systems. As one of the researchers who made this discovery stated, “We were surprised that such simple proteins can act as if they had a mind of their own.”<sup>14</sup>

At a somewhat higher level, we find consciousness operating in the remarkable behavior of a forest slime mold in search of a new feeding area. For most of its life, slime mold exists as a single-cell amoeba. When it needs food, however, it can transform itself into a much larger entity with new capacities. Individual amoebas send out signals to others nearby until thousands assemble. When they reach a critical mass, they organize themselves, without the aid of any apparent leader, into an organism that can move across the forest floor. Upon reaching a better feeding area, they release spores from which new amoebas are formed.<sup>15</sup> Thus, under conditions of great stress, the forest slime mold is able to mobilize a capacity for collective consciousness and action so as to insure its own survival.

If some form of consciousness is operating at the level of atoms, molecules, and single-cell organisms, we should not be surprised to find that consciousness is a basic property of the universe that is manifest at every level. Scientific investigation of intuitive or psychic abilities in humans provides further insight into the nature and ecology of consciousness. Dean Radin, director of the Consciousness Research Laboratory at the University of Nevada, did an exhaustive analysis of parapsychological or psi research involving more than 800 studies and 60 investigators over nearly three decades. Based on this research, he concluded that consciousness includes both “receiving” and “sending” potentials.

Evidence of the receiving potentials of consciousness comes from experiments concerned with perception at a distance, which is sometimes called “remote viewing.” This is the ability to receive meaningful information by non-physical means about a remote person or location simply by opening our knowing faculty to that possibility. In remote viewing, the receiver does not acquire exact information but rather intuitive impressions regarding, for example, where a person might be located or his state of well-being. Radin found that remote viewing has “been repeatedly observed by dozens of investigators using different methods.”<sup>16</sup> He concluded that a capacity for conscious knowing “operates between minds and through space.”

Evidence of the sending potentials of consciousness come from experiments dealing with mind-matter interactions, such as influencing the swing of a pendulum clock. Radin concluded that “after sixty years of experiments . . . researchers have produced persuasive, consistent, replicated evidence that mental intention is associated with the behavior of physical systems.”<sup>17</sup>

I would have been reluctant to write about consciousness being a basic property of the universe—and in particular about parapsychology—had I not had an unusual opportunity to learn about it firsthand. during the early 1970s, I worked as a senior social scientist at the Stanford Research Institute, a large think-tank south of San Francisco that is now called SRI International. There I did studies of the long-range future, primarily for government agencies such as the President’s Science Advisor and the Environmental Protection Agency. While doing this intellectual work, I was invited to participate in parapsychological experiments that were being conducted at SRI by two senior physicists, Dr. Hal Puthoff and Dr. Russell Targ. Several days a week for three years I would go to their laboratory to take part in both formal and informal experiments.

One series of formal experiments involved remote viewing. The procedure was simple. I would be locked in a bare room with a pad of paper, a pencil, and a tape recorder and asked to



describe where in the Bay Area one of the experiments would be. After my door was locked, his destination was selected from a pool of more than a hundred possible locations by drawing an envelope at random from a locked safe. My task, after waiting a half-hour for him to travel to his destination, was to describe in words or drawings the location of this outbound person. Was he in a boat on the bay? In a car on the freeway? In a grove of redwood trees? In a movie theater? In the room next door? My only instructions were, “Take a deep breath, close your eyes, and tell us what you see.” Although the impressions were subtle and fleeting, I gradually learned that we all have an intuitive ability to “see” at a distance. Through our intuition, each of us can acquire useful impressions, images, and insights about a person or place that is distant from us. In my experience and that of other subjects, the description was often sufficiently accurate to allow independent judges to match it with the actual location.<sup>18</sup>

Another series of experiments involved working with a computer that would randomly select in advance, one of four buttons that were prominently displayed on top of it. My task was to intuitively discover which of the four had been selected and to press the correct button. More than 7,000 selections were tallied under controlled conditions—an exhausting process requiring intense concentration over dozens of test sessions. The results were significantly above chance.<sup>19</sup>

These grueling experiments convinced me that we do have an intuitive connection with the universe; they also demonstrated that our capacity to use our intuition is still in its infancy given our early stage of learning. The most important insight that I take away from these and other experiments is that we *all* have an intuitive faculty. An empathic connection with the universe is nothing special; it is built into the workings of the cosmos. Participating in these experiments showed me that our being does not stop at the edge of our skin but extends into and is inseparable from the universe.

If consciousness is found at every level of the cosmos and, further, is not confined within the brain, but extends beyond the body and can meaningfully interact with the rest of the universe in both sending and receiving communications, then this is striking evidence that our cosmos is subtly sentient, responsive, conscious—and alive. The physicist Freeman Dyson thinks it is reasonable to believe in the existence of a “mental component of the universe.” He says, “If we believe in this mental component of the universe, then we can say that we are small pieces of God’s mental apparatus.”<sup>20</sup> While it is stunning to consider that every level of the cosmos has some degree of consciousness, that seems no more extraordinary than the widely accepted view among scientists that the cosmos emerged as a pinpoint some 12 billion years ago

as a “vacuum fluctuation”—where nothing pushed on nothing to create everything.

**The cosmos is able to reproduce itself.** A key attribute of any living system is its ability to reproduce itself. A startling finding from the new physics is that our cosmos may very well be able to reproduce itself through the functioning of black holes. In his book, *In the Beginning: The Birth of the Living Universe*, astrophysicist John Gribbin explains that the bursting out of our universe in the Big Bang is the time-reversed mirror image of the collapse of a massive object into a black hole. Many of the black holes that form in our universe, he reasons, may thus represent the seeds of new universes: “Instead of a black hole representing a one-way journey to nowhere, many researchers now believe that it is a one-way journey to somewhere—to a new expanding universe in its own set of dimensions.”<sup>21</sup> Gribbin’s dramatic conclusion is that “our own Universe may have been born in this way out of a black hole in another universe.” He explains it in this way:

If one universe exists, then it seems that there must be many—very many, perhaps even an infinite number of universes. Our universe has to be seen as just one component of a vast array of universes, a self-reproducing system connected only by the “tunnels” through spacetime (perhaps better regarded as cosmic umbilical cords) that join a “baby” universe to its “parent.”<sup>22</sup>

Gribbin suggests not only that universes are alive, but also that they evolve as other living systems do: “Universes that are ‘successful’ are the ones that leave the most offspring.”<sup>23</sup> The idea of many universes evolving through time is not new. David Hume noted in 1779 that many prior universes “might have been botched and bungled throughout an eternity ere this system.”<sup>24</sup>

Is the cosmos a living system? It certainly appears so in the light of recent scientific findings. Our universe is revealing itself to be a profoundly unified system in which the interrelations of all the parts, moment-by-moment, determine the condition of the whole. Our universe is infused with an immense amount of energy, and is being continuously regenerated in its entirety, while making use of a reflective capacity or consciousness throughout. As an evolving, growing, and learning system, it is natural that freedom exists at the quantum

foundations of the universe. It even appears that the universe has the ability to reproduce itself through the vehicle of black holes. When we put all of these properties together, it suggests an even more spacious view of our cosmic system. Our universe is a living system of elegant design that was born from and is continuously regenerated within an even larger universe. *We are living within a “daughter universe” that, for 12 billion years, has been living and growing within the spaciousness of a Mother universe.* The Mother Universe has existed forever, holding countless daughter universes in its grand embrace while they grow and mature through an eternity of time.

### **The Mother Universe**

When our cosmos blossomed into existence from an area smaller than a pinpoint some 12 billion years ago, it emerged out of “somewhere.” Modern physics is beginning to speculate on the nature of this generative ground. The distinguished Princeton astrophysicist John Wheeler describes space as the basic building block of reality. He explains that material things are “composed of nothing but space itself, pure fluctuating space . . . that is changing, dynamic, altering from moment to moment.” Wheeler goes on to say that, “Of course, what space itself is built out of is the next question . . . . The stage on which the space of the universe moves is certainly not space itself . . . . The arena must be larger: *superspace*... [which is endowed] with an infinite number of dimensions.”<sup>25</sup> What Wheeler calls “superspace,” I am calling the “Mother Universe.”

The idea of a “superspace” or Mother Universe is not simply a creation of theoretical physics. It is a reality that can be directly experienced and has ancient roots in the world’s meditative traditions. For example, more than 20 centuries ago, the Taoist sage Lao-tzu, described it this way:

There was something formless and perfect  
before the universe was born.  
It is serene. Empty.  
Solitary. Unchanging.  
Infinite. Eternally present.  
It is the mother of the universe.  
For lack of a better name,

I call it the Tao.<sup>26</sup>

Regardless of what the Mother Universe is called, all wisdom traditions agree that it is ultimately beyond description. Nevertheless, many attempts have been made to describe her paradoxical qualities. Here are six of the key attributes of the Mother Universe as seen by both East and West:

- **Present everywhere**—The clear, unbounded life-energy of the Mother Universe is present in all material forms as well as in seemingly empty space. The Mother Universe is not separate from us, nor is it other than the “ordinary” reality that is continuously present around us. The Mother Universe is also not limited to containing only our universe; there likely are a vast number of other universes growing in other dimensions of her unimaginable spaciousness.
- **Non-obstructing**—The Mother Universe is a living presence out of which all things emerge, but it is not itself filled or limited by these things. Not only are all things in it; it is in all things. There is mutual interpenetration without obstruction.
- **Utterly impartial**—The Mother Universe allows all things to be exactly what they are without interference. We have immense freedom to create either suffering or joy.
- **Ultimately ungraspable**—The power and reach of the Mother Universe is so vast that it cannot be grasped by our thinking mind. As the source of our existence, the Mother Universe is forever beyond the ability of our limited mental faculties to capture conceptually.
- **Compassionate**—Boundless compassion is its essence. To experience the subtle and refined resonance of the Mother Universe is to experience unconditional love.
- **Profoundly creative**—Because we humans do not know how to create a single flower or cubic inch of space, the creative power of the Mother Universe to bring into existence and sustain entire cosmic systems is utterly incomprehensible.

It is useful to contemplate these extraordinary characteristics of the Mother Universe so as to awaken ourselves to the profound miracle in which we are immersed. In that spirit, here is an evocative portion of what the Chinese monk, Shao, has written in describing what I call the Mother Universe:<sup>27</sup>

If you say that It is small,  
 It embraces the entire universe.  
 If you say It is large,  
 It penetrates the realm of atoms.  
 Call It one; It bears all qualities.  
 Call It many; Its body is all void.  
 Say It arises; It has no body and no form.  
 Say It becomes extinct; It glows for all eternity.  
 Call It empty; It has thousands of functions.  
 Say It exists; It is silent without shape.  
 Call It high; It is level without form.  
 Call It low; nothing is equal to It.

In looking across the world's spiritual traditions, the insight emerges again and again that, although we live in a world of seeming separation and division, our universe is a unified whole that is brimming with life and infused with a divine presence. Here are a few examples:

“Earth's crammed with Heaven, and every common bush afire with God.”

--Elizabeth Barrett Browning, poet

The Tao is the sustaining Life-force and the mother of all things; from it, all “things rise and fall without cease.”<sup>28</sup>

--Taoist tradition of China

“Heaven and earth and I are of the same root. . . are of one substance.”<sup>29</sup>

--Sojo, a Zen monk

Jesus was asked, “When will the kingdom come?” He replied, “It will not come by waiting for it. . . . Rather, the Kingdom of the Father is spread out upon the earth, and men do not see it.”<sup>30</sup>

--Gospel of Thomas, Gnostic Gospels

“For those who are awake the cosmos is one.”<sup>31</sup>

--Heraclitus, ancient Greek philosopher

“My solemn proclamation is that a new universe is created every moment.”<sup>32</sup>

--D. T. Suzuki, Zen scholar and teacher

“I am in some sense boundless, my being encompassing the farthest limits of the universe, touching and moving every atom of existence. The same is true of everything else. . . . It is not just that ‘we are all in it’ together. We all *are* it, rising and falling as one living body.”<sup>33</sup>

--Francis Cook, Buddhist scholar, describing Hua-yen Buddhism

“All Hindu religious thought denies that the world of nature stands on its own feet. It is grounded in God; if he were removed it would collapse into nothingness.”<sup>34</sup>

--Huston Smith, scholar of the world’s sacred traditions

“There is a life pouring into the world, and it pours from an inexhaustible source.”<sup>35</sup>

--Joseph Campbell, scholar of world’s creation stories

“Creation, then, is an ongoing story of new beginnings, opportunities to begin again and again. God began to create, is still creating; nothing is finished.”<sup>36</sup>

--Wayne Muller, ordained minister

“God is creating the entire universe, fully and totally, in this present now. Everything God created. . . . God creates now all at once.”<sup>37</sup>

--Meister Eckhart, Christian mystic

“The entire cosmos comes forth moment by moment from this one fundamental innate mind of clear light.”<sup>38</sup>

--Lex Hixon, scholar of the world's sacred traditions

Christians, Buddhists, Hindus, Jews, Muslims, Taoists, mystics, tribal cultures, and Greek philosophers have all given remarkably similar descriptions of the universe and the life-force that pervades it. These are more than poetic and metaphorical descriptions. Because we find the notion of a living universe emerging across cultures and millennia as well as from modern science, there is compelling evidence that it forms the basis of a powerful perceptual paradigm—one that will open up enormous opportunities for the human family as we are pressed to create a sustainable future for ourselves.

### **Implications of the Living Universe Paradigm**

Like any paradigm shift, the shift to a living universe paradigm is transformative. In addition to changing our view of the universe, it can alter our sense of identity, our sense of purpose, how we relate with others, and much more. Let's consider a few of its many implications.

**A rebirth of connectedness in all aspects of life.** To explore how our experience of the world might change with a shift to a living universe paradigm, let's look at how American Indians perceive and experience the world. Their culture provides a clear window into the experience of living with an infusing aliveness that is an intimate part of everyday life.

Author Luther Standing Bear expresses the wisdom of indigenous peoples around the world when he says that, for the Lakota Sioux, “there was no such thing as emptiness in the world. Even in the sky there were no vacant places. Everywhere there was life, visible and invisible, and every object gave us a great interest in life. The world teemed with life and wisdom; there was no complete solitude for the Lakota.”<sup>39</sup> For the Lakota, who inhabited the upper mid-West of the United States, religion was based on a direct experience of an all-pervading spirit throughout the world. Since a life-force was felt to be in and through everything, all things were seen as being connected and related. Because everything is an expression of the Great Spirit, everything deserves to be treated with respect.

This paradigm was not unique to the Lakota. One of the most dense concentrations of Indian populations in North America—the Ohlones—lived along the fertile region that is now San Francisco, Oakland, San Jose, and Monterey in California.<sup>40</sup> The Ohlones lived sustainably on this land for 4,000 to 5,000 years. Like the Lakota, their religion was without dogma, churches, or priests because it was so pervasive, like the air. Malcolm Margolin describes their experience of the world in his book, *The Ohlone Way*:

The Ohlones, then, lived in a world perhaps somewhat like a Van Gogh painting, shimmering and alive with movement and energy in ever-changing patterns. It was a world in which thousands of living, feeling, magical things, all operating on dream-logic, carried out their individual actions. . . . Power was everywhere, in everything, and therefore every act was religious. Hunting a deer, walking on a trail, making a basket, or pounding acorns were all done with continual reference to the world of power.<sup>41</sup>

In shifting to the living universe paradigm, we rediscover the aliveness that is at the foundation of the universe, and we realize that we are not disconnected from the larger universe, and never have been. An Ojibwe Indian poem expresses this realization beautifully:

Sometimes I go about pitying myself,  
and all the while I am being carried on great winds across the sky.

With a cosmology of a living universe, a shining miracle exists everywhere. There are no empty places in the world. Everywhere there is life, both visible and invisible. All of reality is infused with wisdom and a powerful presence.

**The awakening of cosmic identity.** In the industrial era paradigm, we are no more than biological beings, ultimately separate from others and the rest of the universe. The new findings from physics, however, reveal that we are intimately connected with the entire cosmos. Our actual identity or experience of who we are is vastly bigger than we thought—we are moving from a strictly personal consciousness to a conscious appreciation of ourselves as integral to the cosmos. Physicist Brian Swimme explains that the intimate sense of self-awareness we experience bubbling up at each moment, “is rooted in the originating activity of the universe.



We are all of us arising together at the center of the cosmos.”<sup>42</sup> We thought that we were no bigger than our physical bodies, but we are discovering that we are beings of cosmic dimension, part of the flow of continuous re-creation of the cosmos. By becoming aware of that stream of life in our direct experience, we become conscious of our connection with the living universe.

Technically, we humans are more than *homo sapiens* or “wise”—we are *homo sapiens sapiens* or “doubly wise.”<sup>43</sup> In other words, whereas animals “know,” humans have the capacity to “know that we know.” In this new paradigm, our sense of identity takes on a paradoxical and mysterious quality: we are both observer and observed, knower and that which is known. We are each completely unique yet completely connected with the entire universe. There will never be another person like any one of us in all eternity, so we are absolutely original beings. At the same time, since our existence arises from and is woven into the deep ecology of the universe, we are completely integrated with all that exists. Awakening to the miraculous nature of our identity as simultaneously unique and interconnected with a living universe can help us overcome the species-arrogance and sense of separation that threaten our future.

**Living lightly in a living universe.** In a dead universe, materialism makes sense; in a living universe, simplicity makes sense. Let’s consider these two alternatives.

If the universe is unconscious and dead at its foundations, then each of us is the product of blind chance among materialistic forces. It is only fitting that we the living exploit on our own behalf that which is not alive. If the universe is lifeless, it has no larger purpose or meaning, and neither does human existence. If we are separate beings in a lifeless universe, there are no deeper ethical or moral consequences to our actions beyond their immediate, physical impacts. It is only natural, therefore, that we focus on consuming material things to minimize life’s pains and maximize its comforts.

On the other hand, if the universe is conscious and alive, then we are the product of a deep-design intelligence that infuses the entire cosmos. We shift from feelings of existential isolation in a lifeless universe to a sense of intimate communion within a living universe. If life is nested within life, then it is only fitting that we treat everything that exists as alive and worthy of respect. Our sense of meaningful connection expands to the entire community of life, including past, present, and future generations. Every action in a living universe is felt to have ethical consequences as it reverberates throughout the ecosystem of the living cosmos. The focus of life shifts from a desire for high-consumption lifestyles (intended to provide both

material pleasures and protection from an indifferent universe) toward sustainable and simple ways of living (intended to connect us with a purposeful universe of which we are an integral part). In a living universe, it is only natural that people would choose simpler ways of living that afford greater time and opportunity for meaningful relationships, creative expression, and rewarding experiences. As we consciously explore our connection with a living universe, concern with material consumption will naturally tend to shift into the background of our lives.

**Living with purpose in a living universe.** The shift to a new paradigm also brings a shift in our sense of evolutionary purpose. We are shifting from seeing our journey as a secular adventure in a fragmented and lifeless cosmos without apparent meaning or purpose, to seeing it as a sacred journey through a living and unified cosmos whose purpose is to serve as a learning system. Our primary purpose is to embrace and learn from both the pleasure and the pain of the world. If there were no freedom to make mistakes, there would be no pain. If there were no freedom for authentic discovery, there would be no ecstasy. In freedom, we experience both pleasure and pain in the process of discovering our identity as beings of both earthly and cosmic dimensions. In the words of the Australian aborigines, we are learning how to survive in infinity.

**Living ethically in a living universe.** A form of natural ethics accompanies our intuitive connection with a living universe. When we are truly centered in the life current flowing through us, we tend to act in ways that promote the well-being and harmony of the whole. Our connection with the Mother Universe provides us with a sort of moral tuning fork that makes it possible for individuals to come into collective alignment. An underlying field of consciousness weaves humanity together, making it possible for us to understand intuitively what is healthy and what is not, what works and what doesn't. We can each tune into this living field and sense what is in harmony with the well-being of the whole. When we are in alignment, we experience—as a sort of kinesthetic sense—a positive hum of well-being.<sup>44</sup> In a similar way, we also experience the hum of discordance.

The new paradigm will usher us into an era in which people will be inclined to live ethically because they understand that everything they do is woven into the infinite depths of the Mother Universe. In his *Book of Mirdad*, Mikhail Nimay describes this insight beautifully:

So think as if your every thought were to be etched in fire upon the sky for all and everything to see. For so, in truth, it is.

So speak as if the world entire were but a single ear intent on hearing what you say. And so, in truth, it is.

So do as if your every deed were to recoil upon your head. And so, in truth, it is.

So wish as if you were the wish. And so, in truth, you are.<sup>45</sup>

When we discover that all beings are part of the seamless fabric of creation, it naturally awakens in us a sense of connection with and compassion for the rest of life. We automatically broaden our scope of empathy and concern when we realize that we are inseparable from all that exists. We no longer see ourselves as isolated entities whose being stops at the edge of our skin, and whose empathy stops with our family, or our race, or our nation. We see that, because we all arise simultaneously from a deep ocean of life-energy, a vital connection always exists among all beings.

The living universe paradigm is not simply a lateral shift from one set of values to another; it is a contextual shift, from one cultural atmosphere to another, from one perceptual environment to another. It transforms the human story. After 12 billion years of evolution, we stand upon the Earth as agents of self-reflective and creative action on behalf of the universe. We see that we are participants in an unceasing miracle of creation. This recognition brings a new confidence that our potentials are as exalted, magnificent, and mysterious as the living universe that surrounds and sustains us.

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<sup>1</sup> Willis Harman, *An Incomplete Guide to the Future*, Stanford, CA: Stanford Alumni Association, 1976.

<sup>2</sup> Quoted in David Fideler, "What is a Cosmos?" from a lecture presented at the Great lakes Planetarium Association, Grand Rapids, Michigan, October 1995.

<sup>3</sup> Lee Smolin, *The Life of the Cosmos*, New York: Oxford University Press, 1997, p. 252-253.

<sup>4</sup> David Bohm, *Wholeness and the Implicate Order*, London: Routledge & Kegan Paul, 1980, p. 175.

<sup>5</sup> Michael Talbot, *The Holographic Universe*, New York: Harper Collins, 1991.

<sup>6</sup> Louise B. Young, *The Unfinished Universe*, New York: Simon and Schuster, 1986, p. 205.

<sup>7</sup> *Ibid.*, p. 191.

<sup>8</sup> Bohm, *op. cit.*, p. 11.

<sup>9</sup> Norbert Wiener, *The Human Use of Human Beings*, New York: Avon Books, 1954., p. 130

<sup>10</sup> Max Born, *The Restless Universe*, New York: Harper & Brothers, 1936, p. 277.

<sup>11</sup> Brian Swimme, *The Hidden Heart of the Cosmos*, New York: Orbis Books, 1996, p. 100.

<sup>12</sup> Renee Weber, *Dialogues with Scientists and Sages*, New York: Routledge & Kegan Paul, 1986, p. 19.

<sup>13</sup> Freeman Dyson, *Infinite In All Directions*, New York: Harper & Row, 1988, p. 297.

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- <sup>14</sup> Philip Cohen, "Can Protein Spring into Life?" in *New Scientist*, April 26, 1997, p. 18.
- <sup>15</sup> Mitchel Resnick, "Changing the Centralized Mind," *Technology Review*, July 1994 (available on the world wide web, revised January 1995).
- <sup>16</sup> Dean Radin, *The Conscious Universe* (San Francisco: Harper Edge, 1997), p. 109. Also see: Harold Puthoff and Russell Targ, "A Perceptual Channel for Information Transfer Over Kilometer Distances," published in the proceedings of the *I.E.E.E.*, (vol. 64, no. 3), March, 1976.
- <sup>17</sup> Radin, *Ibid.*, p. 144.
- <sup>18</sup> Puthoff and Targ, *Op. Cit.*, 338-340. Also see, R. Targ and H. Puthoff, *Mind-Reach: Scientists Look at Psychic Ability*, Delacorte Press/Eleanor Friede, 1977.
- <sup>19</sup> Russell Targ, Phyllis Cole, and Harold Puthoff, *Development of Techniques to Enhance Man/Machine Communication*, report prepared for NASA project 2613, Stanford Research Institute, Menlo Park, California, June 1974.
- <sup>20</sup> Freeman Dyson, *Infinite in All Directions*, New York: Harper and Row, 1988, p. 297.
- <sup>21</sup> John Gribbin, *In the Beginning: The Birth of the Living Universe*, New York: Little, Brown and Co., 1993., pp. 244-245.
- <sup>22</sup> *Ibid.*, p. 245.
- <sup>23</sup> *Ibid.*, p. 252.
- <sup>24</sup> Easterbrook, p. 48.
- <sup>25</sup> Wheeler, *Op. Cit.*, p. 29; also quoted in Renee Weber, "The Good, The True, The Beautiful," in *Main Currents Op. Cit.*, p. 139.
- <sup>26</sup> Stephen Mitchell (trans.), *Tao Te Ching: A New English Version*, Harper & Row, 1988, Chapter 25.
- <sup>27</sup> The quote by Shao is taken from, Garma Chang, *The Buddhist Teaching of Totality: The Philosophy of Hwa Yen Buddhism*, University Park: The Pennsylvania State University Press, 1971, p. 111.
- <sup>28</sup> Lao Tsu, *Tao Te Ching*, (Translation by Gia-Fu Feng and Jane English), New York: Vintage Books, 1972.
- <sup>29</sup> A saying of Sojo, quoted in D.T. Suzuki, *Zen and Japanese Culture*, New Jersey: Princeton University Press, 1970, p. 353.
- <sup>30</sup> Gospel of Thomas, *Nag Hammadi Library*, James M. Robinson (general editor), San Francisco: Harper & Row, 1977, p. 129-130.
- <sup>31</sup> Heraclitus quoted in Timothy Ferris, *Galaxies*, New York: Stewart, Tabori & Chang, 1982, p. 87.
- <sup>32</sup> Suzuki, *Zen and Japanese Culture*, *Op. Cit.*, p. 364.
- <sup>33</sup> Francis H. Cook, *Hua-yen Buddhism: the Jewel Net of Indra*, University Park: The Pennsylvania State University Press, 1977, p. 122.
- <sup>34</sup> Smith, *The Religions of Man*, *Op. Cit.*, p. 73.
- <sup>35</sup> Joseph Campbell, *The Power of Myth*, with Bill Moyers, New York: Doubleday, 1988, p. 217.
- <sup>36</sup> Wayne Muller, *Sabbath*, New York: Bantam Books, 1998, p. 36.
- <sup>37</sup> Matthew Fox, *Meditations With Meister Eckhart*, Santa Fe, New Mexico: Bear & Co., 1983, p. 24.
- <sup>38</sup> Lex Hixon, "The Morning Star of Enlightenment," in Georg & Trisha Feuerstein, eds., *Voices on the Threshold of Tomorrow*, Wheaton, IL: Quest Books, 1993, p. 388.
- <sup>39</sup> Luther Standing Bear, quoted in Joseph Epes Brown, "Modes of Contemplation Through Actions: North American Indians," *Main Currents in Modern Thought*, New York: Center for Integrative Studies, November-December, 1973, p. 194.
- <sup>40</sup> Malcolm Margolin, *The Ohlone Way: Indian life in the San Francisco—Monterey Bay Area*, Berkeley, CA: Heyday Books, 1978.
- <sup>41</sup> *Ibid.*, p. 142-143.
- <sup>42</sup> *Ibid.*, p. 112.
- <sup>43</sup> The designation of modern humans as *Homo sapiens sapiens* is widespread; see, for example: Joseph Campbell, *Historical Atlas of World Mythology, Vol I: The Way of the Animal Powers, Part I: Mythologies of the Primitive Hunters and Gatherers*, New York: Harper and Row, Perennial Library, 1988, p. 22. Richard Leakey, *The Making of Mankind*, New York: E.P. Dutton, 1981, p. 18. Mary Maxwell, *Human Evolution: A Philosophical Anthropology*, New York: Columbia University Press, 1984, p. 294. John Pfeiffer, *The Creative Explosion: An*

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*Inquiry into the Origins of Art and Religion*, New York, Ithaca: Cornell University Press, 1982, p. 13. Clive Ponting, *A Green History of the World*, New York: Penguin Books, 1993, p. 28.

<sup>44</sup> Mary Maxwell, *Op. Cit.*, p. 111.18

<sup>45</sup> Mihail Nimay, *Book of Mirdad*, Baltimore: Penguin Books, 1971.