

HUMANITY'S GREAT TRANSITION

A Middle Path to a Sustainable and Surpassing Future

2019 — 2100



© Duane Elgin

January 13, 2019 Version 2.85

HUMANITY'S GREAT TRANSITION

A Middle Path to a Sustainable and Surpassing Future

2019 - 2100

Our Journey Home	1
The Dynamics of Great Transition	3
Becoming Doubly-Wise Humans	6
Warnings to Humanity	7
A Path Between Two Extremes	8
Seven Stages of Great Transition	11
• Stage 1: Denial	13
• Stage 2: Denial Shattered	13
• Stage 3: Lifeboat Communities	15
• Stage 4: Moving Toward Collapse	17
• Stage 5: A Race with Ruin	19
• Stage 6: Humanity Awakens	21
• Stage 7: A New Path Forward	23
Our Pathway Into a Promising Future	26
Appendix: A Living Universe Paradigm and Pathway	28
Acknowledgments and Bio	35
References:	35

HUMANITY'S GREAT TRANSITION

A Middle Path to a Sustainable and Surpassing Future

© Duane Elgin, January 13, 2019 Duane@DuaneElgin.com Version 2.85

Our Journey Home

Humanity has entered a time of historic transition that is unprecedented in its urgency, magnitude and impact. We are being pushed by unyielding necessity to respond to an array of adversity trends. Some think climate change, unsustainable population, resource depletion, species extinction and more may bring a tragic end to human history. Others see these trends as an evolutionary force, moving us toward sustainable ways of living with a surpassing sense of purpose. I see the latter possibility as more accurate: We are going somewhere as a species! We are on an extraordinary journey, moving through a rite of passage that will take us from our collective adolescence into our early adulthood as a human family. With that passage, we will awaken a new sense of reality, human identity, and evolutionary journey that will enable us to move toward a sustainable and surpassing future. However, humanity's passage from millennia of separation to a world of connection and collaboration is precarious and filled with monumental difficulties.

To see our larger journey, it is helpful to step back and look at the big picture with the help of the poet, T.S. Eliot who wrote these discerning lines:

“We shall not cease from exploration, and the end of all our exploring will be to arrive where we started and know the place for the first time.”

This sentence summarizes humanity's journey. We began our explorations by separating from nature and one another. We now face a time of initiation produced by our unbridled material success. If successful in moving through this rite of passage, we can begin our return home, “and know the place for the first time.” Here are the three, major phases of the human journey:

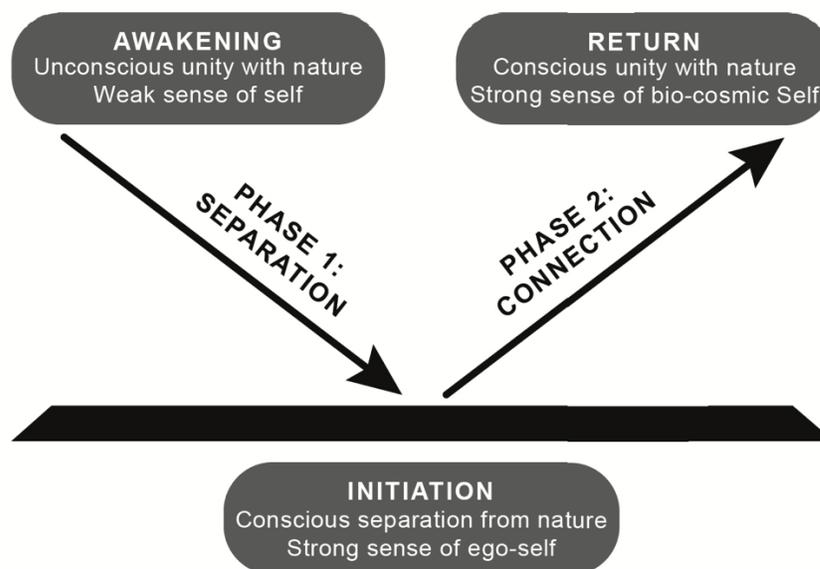
Phase I: Separation. Judging from the nature of cave art, figurines, and burials, we can discern that roughly 50,000 years ago we humans had a relatively undifferentiated sense of ourselves as unique beings, and an awakening consciousness of our unity with nature and life. We were pulling back from nature, becoming more conscious observers of life, first as awakening hunter-gatherers and then, with the end of the last ice age roughly 12,000 years ago, as farmers and then urban dwellers in the industrial era.

Along the way, we have been differentiating ourselves from one another, and feeling ever more empowered as individuals. We began this phase with a relatively undifferentiated sense of self and, by the time we reach the phase of initiation, we have gained the experience of conscious separation from nature and a strong, biological sense of self.

Phase II: Initiation. The path of separation has led to the virtual ruin of the Earth. Now we are forced by dire necessity to choose a new pathway ahead that brings us back into harmony with the natural world. To accomplish this, we invited to release our earlier identities and dogmas and make room for new understandings of the nature of reality, identity and journey to emerge.

Phase III: Connection. A new pathway beckons with the understanding we are all living on this Earth together and mobilization at the local level is the most immediate way to reorient our lives toward collective sustainability. A new paradigm or way of understanding reality is growing with the convergence of science and spirituality. Together, they describe our universe as a living, growing system. In turn, we are arriving where we started and discovering our identity as beings who are both biological and cosmic in nature and who are awakening to our conscious unity with nature:

HUMANITY'S JOURNEY OF AWAKENING



A tremendous advance in human maturity and consciousness is embodied in this great turn. Insights from modern science and ancient wisdom converge to reveal a stunning perception described by Plato more than two thousand years ago: “The universe is a single living creature that contains all living creatures within it.” Life within life! Our aliveness connects with the larger aliveness of a living universe. We are arriving where we started and, as empowered beings, feel a conscious intimacy with the universe and the aliveness within it. We see we are entering an authentically new phase of maturation and development for humanity. What we thought was a crisis—running into an evolutionary wall of unsustainability—is, instead, the collective catalyst for awakening humanity to our higher potentials.

The Dynamics of Great Transition

We humans have just begun to move into our rite of passage; yet, a stunning proportion of the public already recognizes some kind of great transition is underway. A major study in 2015 investigated the perceived probability of threats to humanity in four Western nations: the US, UK, Canada and Australia.¹ Overall, a majority (54%) rated the risk of ending the dominant way of life within the next 100 years at 50% or greater. A quarter (24%) rated the risk of humans being wiped out at 50% or greater. These responses were relatively uniform across the four countries, as well as age groups, gender and educational levels. Almost 80% agreed “we need to transform our worldview and way of life if we are to create a better future for the world.”

Given some measure of awakening is already present, how long might it take us to traverse our dangerous and demanding rite of passage and begin our return to unity with the universe and all of life? It will be very difficult for the human community of 8 billion or so humans—with different cultures, languages, histories, material circumstances—to come together under conditions of immense stress and discover working agreements for how to move forward. (This is a task for the feminine consciousness and our relationship-building skills!) Based on my decades of research, below is a plausible future—a middle path between extremes—that unfolds during the remainder of this century, roughly 80 years or the lifetime of a fortunate human. Eighty years is a time span within our intuitive grasp and a time frame that could encompass our passage through a planetary transition and to the beginning of our journey home “to arrive where we started and know the place for the first time.”

Importantly, this is not a prediction. The world is too uncertain and dynamic to make a confident forecast for the future. I also realize it may represent unwarranted optimism to expect humanity to realize this great turning in the span of roughly 80 years. When I look back on my professional experience, I have the sense we could be in for a far longer passage of transition. A personal story illustrates this possibility. In 1976 I first learned about climate change as an existential threat to humanity. I was working on a year-long project for the

President's Science Advisor at a major think tank (SRI International) as a senior social scientist.² We were looking for unexpected, future challenges that could wipe us out from the blind side. In support of this project (43 years ago), I attended a briefing on climate change at the Department of Energy in Washington, D.C. At the briefing we were told that, if present trends continue, in another 40 to 50 years, it would create serious problems of global warming for the planet. Despite this somber warning, energy officials discouraged us from including global warming in our report; first, because this problem would not grow into a crisis for nearly half a century and, second, because politicians would surely respond with that much lead time. Ultimately, the science advisor decided our overall report was too controversial and it was "put on the shelf"—away from easy access by politicians and the public. Now, nearly a half-century later, we can see the result of decades of delay: the world is under assault with a dramatically changing climate and the potential for the collapse of civilizations in the decades ahead is a very real. Given my experience, I do not expect adequate responses to come from traditional institutions left on their own, whether those of government, corporations or media. The resourcefulness and vision required will come, I think, from ordinary citizens organizing themselves from the local to global level and learning our way into a new future of promise.

Real change involves real people with diverse lives going through deep learning as direct experience. Great suffering is the evolutionary fire that burns through attachments to old identities, dogma's and worldviews to awaken compassion for ourselves, one another, and the rest of life. Here is a summary of my view of our time of great transition, taken from my book, *"The Living Universe:"*

"The suffering, distress, and anguish of these times will become a purifying fire that burns through ancient prejudices and hostilities to cleanse the soul of our species. I expect no single, golden moment of reconciliation to descend upon the planet; instead, waves of ecological calamity will reinforce periods of economic crisis, and both will be amplified by massive waves of civil unrest. Instead of a single crescendo of crisis and conflict, there will likely be momentary reconciliation followed by disintegration, and then new reconciliation. In giving birth to a sustainable world civilization, humanity will probably move back and forth through cycles of contraction and relaxation. Only when we utterly exhaust ourselves will we burn through the barriers that separate us from our wholeness as a human family. Eventually we will see that we have an unyielding choice between a badly injured (or even stillborn) planetary civilization and the birth of a bruised but relatively healthy human family and biosphere. In seeing and accepting responsibility for this inescapable choice, we will work to discover a common sense of reality, identity, and social purpose. Finding this new common sense will be an extremely demanding task. Only after we have exhausted all hope of partial solutions

will we be willing to move forward with an open mind and heart toward a future of mutually supportive development. Ultimately, in moving through our initiation, we can grow from our adolescent ways as a species into our early adulthood and consciously take responsibility for our relationship with the Earth, the rest of life, and the universe.”³

Although this passage offers a summary description of our time of great transition, it does not offer insight into specific stages of change. To encourage a more robust conversation about the future ahead, I developed a seven-stage scenario describing how the remainder of this century could unfold as we make a collective transition to a sustainable and meaningful future. By breaking our time of complex transition into seven, relatively distinct but overlapping stages, it makes the journey ahead easier to imagine and therefore more graspable, both personally and collectively. By offering specific estimates of time frames and key descriptions for each stage, I hope others will be motivated to offer their views for the timing of stages ahead.

I realize this scenario is just one of many possible paths, so I offer this essay with an open invitation to all who read it to challenge its premises, disagree with its conclusions and offer alternative views. ***What is most important is our active engagement with one another in developing a collective story describing our journey into a sustainable and surpassing future. If we can imagine it together, we can create it together.***

It is important to acknowledge that looking realistically into the future now unfolding is unavoidably demanding—and confronting—for each one of us, myself included. For me, the research and writing for this paper has been very challenging—physically, emotionally, mentally and spiritually. Because it has been difficult for me, I’m very mindful of the fact that it may also be difficult for you. As I’ve absorbed the magnitude and depth of change underway, at times I have felt physically exhausted and utterly overwhelmed. As I’ve felt the intensity and immensity of suffering that will accompany this rite of passage, I am humbled, knowing this tsunami of sorrow will break our hearts and, at the same time, open us to a higher humanity. As I’ve tried to understand intellectually what is developing, I’ve been pushed continuously to reach further and include ever more if I am to have a mental grasp of what is underway. As I’ve meditated on the world’s wisdom traditions, searching for insight regarding our pathway ahead, I’ve felt the immensity of our challenge to awaken collectively as a species.

No one has ever gone through the fiery rite of planetary passage into which we have now entered. Engaging our collective future takes emotional courage as it naturally brings up existential fears and deep-seated wounds. The sheer magnitude, complexity and turmoil created by world-changing trends produces feelings of overwhelm that can be a barrier for

looking ahead. However, there finally comes a point when we cannot turn away—when we must choose to look and respond with either radical maturity or passive surrender to chaos.

As you read this essay, I invite you to explore your vision of our time of transition during the remainder of this century. I also encourage you to notice feelings and reactions that arise within you as you consider each stage of transition. Unrealistic? Too optimistic? Too pessimistic? What awakens feelings of anger? What expectations for the future are most overwhelming to you? What subjects make you want to shut off and disengage? What are your feelings as you move through the seven stages? Your natural responses offer valuable insights for the world we will be moving through together.

Becoming Doubly-Wise Humans

Before we dive in to explore stages of transition, it is important to look ahead and bring in the evolution of human consciousness as a core theme. Our core evolutionary potential as a species lies largely unnoticed in the scientific name that we have given to ourselves. In scientific terms, our name as a species is not simply *Homo sapiens* or “wise humans.” Rather, we are *Homo sapiens sapiens* or “doubly wise humans.”⁴ This means that, although animals have the capacity “to know,” we humans have the capacity “to know that we know” or the ability to bring a reflective consciousness into our lives. *If we use our scientific name as a guide, then our core purpose as a species is to realize—both individually and collectively—our potential for double wisdom or “knowing that we know.”* In turn, a key challenge for humanity is to recognize that the fulfillment of our evolutionary potential involves the development of our collective capacity for reflective consciousness—a capacity vital for the self-guiding evolution of civilizations.

As humanity develops our capacity for reflective consciousness, the universe is simultaneously acquiring the ability to look back and reflect upon itself. We are the culmination of nearly 14 billion years of evolution. It has taken these billions of years to grow organisms on the Earth that have a sufficiently developed consciousness to be able to reflect on and appreciate the simple fact of being here. After billions of years of evolution, a life form has emerged on the Earth that is literally the universe looking back at her creations through the unique perspective and experience of each person: A gardener appreciating a flower or an astronomer peering out at the night sky represents the closing of a loop of awareness that began with the birth of our cosmos nearly 14 billion years ago. Our universe gave birth to and sustains living planets which, in turn, have given rise to life-forms that are now able to “know that they know” and look back at the universe with wonder and awe. We “arriving where we started” and awakening as doubly-wise beings who consciously reflect on the miracle of the universe and the gift of our existence. We are becoming conscious partners with the universe in the unfolding story of

cosmic evolution. However, before we can rise fully to that opportunity, we are challenged to make the transition to our early adulthood as a species.

Warnings to Humanity

Most citizens of the Earth know we confront major challenges. We are already beginning to feel the leading edge of a gathering world storm that is a whole-systems crisis. Although human societies have confronted major hurdles throughout history, the challenges of our era are unique in one crucial respect: most are planetary in scope—global warming and climate destabilization, the depletion of cheap oil and fresh water, over-fishing of the world’s oceans, widespread erosion of topsoil, the rapid and massive extinction of animal and plant species, growing disparities between the rich and the poor made starkly visible with the communications revolution, and the spread of weapons of mass destruction. The circle has closed and there is no escape. Like it or not, the Earth has become a single, tightly interconnected system. Never before has the human family been on the verge of devastating the entire biosphere and crippling the ecological foundations for countless generations to come.

A summary assessment of humanity’s crisis of transition has been developed by the world’s leading scientists. This got underway in 1992 when over 1,600 of the world’s senior scientists, including a majority of the living Nobel laureates in the sciences, signed an unprecedented document titled *Warning to Humanity*. In this historic statement, they declared that “human beings and the natural world are on a collision course . . . that may so alter the living world that it will be unable to sustain life in the manner that we know.” This is their conclusion:

“We, the undersigned senior members of the world’s scientific community, hereby warn all humanity of what lies ahead. ***A great change in our stewardship of the earth and the life on it is required if vast human misery is to be avoided and our global home on this planet is not to be irretrievably mutilated.***”⁵ [emphasis added]

This conclusion is in accord with my own views, based on nearly a half-century of research. My thoughts return to a key portion of the warning of scientists: They state that, if great changes are not made in our stewardship of the Earth, the planet will be “irretrievably mutilated.” It is these last, two words—irretrievably mutilated—that reverberate in my mind. What do these two words mean for countless generations ahead as they look back on the choices we made in these pivotal decades? The Earth forever disfigured, permanently damaged, maimed and mutilated for all time? Is that to be our legacy to future generations?

A 25-year update to this famous warning was published in 2017 and concluded that the initial warning to humanity had not been heeded—and then added this further warning:

“Soon it will be too late to shift course away from our failing trajectory, and time is running out. We must recognize, in our day-to-day lives and in our governing institutions, that Earth with all its life is our only home.”⁶ [emphasis added]

Climate change is the most visible challenge and it is speeding ahead. We are fast approaching a climate threshold beyond which global warming will feed upon itself and produce runaway changes. This can happen when global warming melts permafrost and releases huge quantities of methane—a greenhouse gas that is 20 times more potent than CO₂—from previously frozen soils. If climate change gets out of control, we will have lost control of our future. The time-frame for reaching this threshold is getting shockingly close as greenhouse gases accumulate. Here are the terrifying estimates of what we can anticipate if we don’t take immediate action:

- 4 degrees Celsius warming by 2080 = climate catastrophe underway
- 3 degrees Celsius warming by 2050 = out of control global warming
- 2 degrees Celsius warming by 2030 = threshold for runaway change⁷
- 1.1 degree Celsius warming by 2018 = clear evidence of climate disruption

In a little more than ten years, by the decade of the 2030s, global warming could increase by 2 degrees Celsius over pre-industrial levels, and cross into the region runaway climate change. Humanity’s time-frame for mobilizing actions proportional to the challenges we face is, for practical purposes, the decade of the 2020’s.

The wisdom of our species is being tested by conditions we are creating for ourselves. We are being pushed by necessity and pulled by opportunity to become a global family that is not at war with itself but, instead, invests scarce resources in providing what we all want: uncontaminated food, clean water, shelter, safety, and meaningful lives. With a collaborative spirit, I believe these are all attainable goals. What are humanity’s prospects for such a future?

A Path Between Two Extremes

Many scenarios describing of humanity’s long-range future—roughly the period between now and the end of the century—offer one of two extremes: either “chaos and collapse” or “authoritarian control”:

I. CHAOS AND COLLAPSE: In this future, we run out of time and realize our half-measures were “too little and too late” (the lament of nearly all the world’s earlier civilizations that

have gone extinct). Runaway climate change produces mass migrations to more favored regions of the Earth, in turn producing planetary-scale disruption, chaos and violence. By our own hand and with a relentless drive for growth, we create a world that is no longer supportive of human biological habitation. If temperatures go up by the estimated 3.5 degrees Celsius, it will produce a climate profoundly inhospitable to humanity's biological existence. Global warming of just over 1 degree Celsius is already producing mass migrations, agricultural disruption, famine, and disease—and these will intensify enormously in decades ahead with shattering consequences. With climate changing, food production collapsing, billions migrating, resource wars intensifying, and much more, human civilization could be torn apart. A mindset of mistrust could permeate the Earth, making it nearly impossible to grow a cohesive global, eco-civilization. In a self-fulfilling process, civilizations could break down and survivalism flourish—in a rush, the entire world system created within a congenial climate over the millennia could collapse.

II. AI AND AUTHORITARIAN CONTROL: At the other end of the spectrum from chaos is a future of rigid control in a world governed with the aid of artificial “super-intelligence.” This scenario becomes plausible when, by mid-century, artificial intelligence is expected to exceed that of humanity's collective intelligence. Earth's slide into chaos and ruin at mid-century might be halted with sweeping interventions that combine authoritarian governance with artificial collective intelligence (ACI). In this scenario, we are prevented from going into full collapse by turning over control of many of the world's key life-systems to super-intelligent computer systems (for example, climate stability, food and water availability, basic safety, etc.). In a time of wrenching chaos, when our very existence is in doubt, many humans could relinquish their identity and privacy to the “hive mind” with its strict controls. Despite authoritarian interventions, the Earth's ecosystem may still be deeply wounded and so inhospitable that we cannot prosper biologically. In this wounded world, we may replace ourselves by using genetic technologies to produce an array of new species that are engineered for heat tolerance, disease resistance, enhanced intelligence, and more. An array of “up-leveled” species could join with “super-intelligent” computer systems to rush forward on their unique evolutionary paths. “Natural humans” could become a fascinating footnote to life on Earth—a transitional species that relinquished the evolutionary journey to a new array of augmented species of its own making.

Is there a middle way between the extremes of a “Shattering Collapse of Civilization” and a “Cyber-Authoritarian Stability?” A pathway of “Gradual Adaptation” could have worked—if *we had begun a half-century earlier, in the early 1970s*. Now, a half-century later, we realize we have used up the slack in the world system and face catastrophic consequences if we don't respond immediately and make all-encompassing changes in how we live materially on the

Earth. For example, to avoid disastrous climate change, scientists estimate that the human community must halt increases in fossil fuel emissions by 2020 and then cut them in half by 2030, and then cut them in half again by 2040, and so on by decade.⁸ An extraordinary level of effort and degree of change will be required across all sectors of life and society if we are to avoid runaway climate change. Radical changes that are global in scale and so deep and so urgently required will require tremendous level of decentralized effort and self-organizing action. This brings in the third and primary pathway ahead—building a global “eco-civilization” based upon the self-organizing efforts of people and communities at the local level.

III. TRANSFORMATION INTO AN ECO-CIVILIZATION: There is a middle path called by many names. One common description is that of an Earth-scale “Eco-Civilization” that seeks to live in harmony with the ecology of the Earth. In practical terms, a resilient foundation for a global eco-civilization could be provided through the blossoming of self-organizing eco-villages around the world. This pathway assumes people are drawn to making a voluntary transition to ecological ways of living that combine greater personal freedom as well as community freedoms with increased responsibility. This is a “mature world” where we are working together globally to rapidly decentralize and transform our everyday lives to create a sustainable, purposeful and meaningful world. Changes range from the nature of the home in which we live, the car and transportation we use, the food we eat, the work that we do, and much more. An eco-civilization is aware of and engaged with the ecology of consciousness as well as the social and physical ecology of life. We begin to reclaim the ancient intuition and understanding that there is a subtle aliveness everywhere and in everything. We are learning to live within this deeper aliveness. Our opening into aliveness is at the heart of an eco-civilization and represents a profoundly important difference with the worldview of materialism dominant in the collapse and control scenarios.

It seems likely that all three of these pathways—collapse, control, and transformation—will continue to be present in varying proportions depending on the choices we make now. If citizens and institutions are disengaged, then it seems likely that forces of collapse and control will be competing for dominance. However, if we are engaged in the common enterprise of restoring the Earth and building a sustainable future, then the collapse and control pathways could be greatly moderated as we move ahead.

How do we make the transition from a competitive world focused on consumption and growth to a global eco-civilization—or by whatever name fits this middle path between collapse and authoritarian control? What are the plausible stages and steps as we move into this new world? How might we realistically move from a world dominated by competitive individualism for

personal gain to an even more challenging and rewarding world of voluntary collaboration for collective survival and well-being? The skeletal outlines of this pathway are described in the “Seven Stages of Great Transition” below. This scenario assumes the time for gradual adaptation is gone. Success now requires that our actions be proportional to the extraordinary challenges we face. The magnitude of actions required to build an ecologically sustainable, Earth-civilization are summarized in respected magazine, “*New Scientist*” with this assessment:

“. . . it will arguably be the largest project that humanity has ever undertaken – comparable to the two world wars, the Apollo program, the cold war, the abolition of slavery, the Manhattan project, the building of the railways and the rollout of sanitation and electrification, all in one. In other words, it will require us to strain every muscle of human ingenuity in the hope of a better future, if not for ourselves then at least for our descendants.”⁹

What a remarkable pivot point in human history! We have reached an evolutionary crossroads. There are no simple or easy paths ahead. Soon we will discover whether we are willing to know ourselves deeply and to work together with a spirit of kinship for the well-being of all.

Seven stages of transition leading to a viable, an eco-civilization is explored below. Importantly, this is not a prediction but, instead, is offered as a realistic pathway describing how our planetary-scale, rite of passage to our species maturity might unfold. With a clearer sense of what is plausible, we can think more freshly about how to respond. Before considering this middle pathway ahead, it is helpful to make a distinction between “breakdown” and “collapse.”

- **Breakdown** means that linkages in key systems are failing. There are power outages. The water stops running at times and its purity is doubtful. Fire and police departments close periodically because they cannot pay people. Chains of food delivery—from farm to stores—stop operating for periods of time. Breakdown means the disintegration of whole systems into their component parts—which, in turn, creates opportunities for new configurations of living. Breakdown creates the freedom for rebuilding in new ways that are healthier and more functional. Breakdowns can be a catalyst for people’s creativity and spur innovation—for example, in building and retrofitting eco-communities whose micro-economy supports resilient approaches to living.
- **Collapse** is far more serious than breakdown as it describes the ruinous downfall of communities, cities, and civilizations. With collapse, society fails completely as housing, transportation systems, water and sewage systems, and more fall into jumbled chaos. Collapse is the ruinous failure of the system *and* its components; leaving both the whole system and components in a condition of rubble—a junkyard of broken systems of all

kinds—transportation, communication, city services (such as fire, water and police) and economic. Collapse produces a very difficult foundation (physical, psychological, social, and spiritual) from which to build a promising future of inclusive, sustainable well-being. A graphic description of what collapse would mean for the world is offered by what is happening in Venezuela. Once one of the economic miracles of South America with one of the largest reserves of oil in the world, its economy has collapsed in the last few years with devastating consequences:

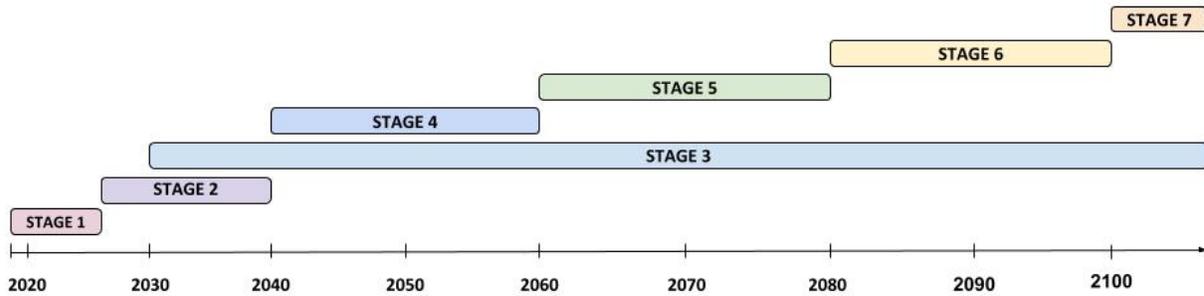
“. . . Desperate oil workers and criminals are also stripping the oil company of vital equipment, vehicles, pumps and copper wiring, carrying off whatever they can to make money. . . Venezuela is on its knees economically, buckled by hyperinflation and a history of mismanagement. Widespread hunger, political strife, devastating shortages of medicine and an exodus of well over a million people in recent years have turned this country, once the economic envy of many of its neighbors, into a crisis that is spilling over international borders.”¹⁰

With *breakdowns*, the components of life are still sufficiently intact to be re-assembled into new configurations that can work—hopefully even better than before. However, *collapse* requires starting over and building a new world on the scrap heap of ruined civilizations and a devastated biosphere. Looking ahead, global breakdowns seem inevitable while global collapse seems avoidable.

Seven Stages of Great Transition

Humanity is growing up and, just as a young person makes many missteps and mistakes in their maturation, so too can the human family be expected to struggle in finding our way to early adulthood. It is unrealistic to expect billions of humans to make the transition from collective adolescence to early adulthood in a single step. Instead, I envision a series of stages that will be required for making this great transition. For purposes of clarity, the complex path of transition is presented as a series of relatively distinct stages. However, reality is resistant to being compartmentalized and these seven stages overlap and blend into one another with changing proportions of people in the different stages at different times. Presented below is a one-page summary of the seven stages followed by detailed descriptions of each stage.

SEVEN STAGES OF GREAT TRANSITION: 2019 – 2100



STAGE 1 (2019-2025) DESPITE WARNINGS, DENIAL PERSISTS, SUSTAINING BUSINESS AS USUAL: The prevailing consensus-transcends rejects claims of a global systems crisis. Actions are slow and modest. The dominant majority of society remains preoccupied with distractions of entertainment, business and consumerism. A growing subculture is awakening outwardly to the extinction crisis and inwardly to the exploration of consciousness.

STAGE 2 (2025-2040) DENIAL SHATTERED BY SHOCKS AND EMERGENCIES: Deep structural trends (in climate, population, resources, etc.) converge to create planetary-scale emergencies that shock humanity into realizing the profound urgency of our situation. Meditation and other consciousness practices are important for coping with the shock we may extinct ourselves as a species. Anxiety, fear, blame and confusion are widespread.

STAGE 3 (2030 onwards) LIFEBOAT COMMUNITIES, A RELATIONAL CONSCIOUSNESS AND GLOBAL COMMUNICATIONS FLOURISH: Eco-villages and micro-economies of diverse design emerge to provide islands of sustainability and security. Countless sustainability initiatives begin to create a new world culture and consciousness. A rising feminine consciousness awakens relational skills, empathy, and compassion which provide invaluable social cohesion for this unraveling world. The inescapable planetary awareness is growing that we are all in this predicament together.

STAGE 4 (2040 - 2060) MOVING TOWARD COLLAPSE: Global breakdowns become an avalanche of system failures. Intense, global conversations develop as a majority realizes there is no turning back and we must move ahead to a new future. Grief, anguish and sorrow permeate global culture and consciousness. We burn through old separations, recognizing our interdependence. Decades of suffering create an evolutionary fire that gives birth to an evolving, species consciousness. A new sense of human connection and identity is emerging.

STAGE 5 (2060 - 2080) A RACE BETWEEN RUIN AND RENEWAL: Despite good intentions, past efforts were too little and too late. Early breakdowns move rapidly towards a global, systems collapse. Large-scale human die-offs. Mass migrations. Animal and plant extinctions. A future of ruin and regret awaits. A focus on material progress is largely abandoned in favor of a frantic search for sustainable and regenerative ways of living.

STAGE 6 (2080 – 2100): HUMANITY CHOOSES TRANSITION AND ALIVENESS: Decades of global suffering melt rigid ideas of separation and combine with the global communications revolution to reveal that we live in a planetary village. Facing the reality of self-inflicted extinction, humanity is thrust into final dialogues regarding our future. We step up in collective awareness and, with radical trust, choose to move through the transition, pull together, heal the wounds of history, and move toward a future of reconciliation and collaboration.

STAGE 7 (2100 and beyond) A TRANSFORMATIONAL PATH FORWARD: After coming to the edge of collapse and extinction, an intensely reflective and attentive Earth civilization is born. We move from our adolescence to early adulthood. Living and working together through generations of collective trauma and heartbreak has produced a new, shared consciousness with tremendous strength and resilience. We recognize ourselves as a planetary community of bio-cosmic beings learning to live in a living universe.

STAGE 1 (2019-2025) DESPITE WARNINGS, DENIAL PERSISTS, SUSTAINING BUSINESS AS

USUAL: We begin in a time of profound polarization regarding climate change and other challenging trends. Differences in public opinion range from complete denial of any climate emergency to a great concern that we are on a path of extinction. For the ruling elites in politics, media, and finance, issues such as climate change and species extinction are conveniently viewed as either non-existent or greatly exaggerated. Therefore, “business as usual” continues despite growing misgivings. Features of the hard denial stage include:

- Mainstream media, politics, economics, religion ignores or deflects great challenges.
- Diverse entertainments—sports, music, movies, video games—distract society.
- Movements emerge to reclaim and return to an imagined golden age from the past.
- People are distracted and consumed by the busyness and demands of everyday life.
- Many are immersed in the comforts of wealth, status, pleasure and power.
- Materialism and consumption continue as the driving force of our economic system

Softer forms of denial emerge as global temperatures rise by 1.1 Celsius (1.98 Fahrenheit) over pre-industrial levels. Early evidence of climate change is seen in the growing frequency and intensity of storms, droughts, floods and heat waves. Although these trends are recognized as real, the prevailing social consensus rejects claims of a larger, intertwined web of problems; instead, these are viewed:

- Not as a whole-systems crisis; rather individual problems that can be solved one at a time.
- Not as important as other issues such as jobs and healthcare.
- Not as urgent or immediate as claimed; therefore, there is ample time to respond.
- Not as big in scope as claimed; rather, these are pockets of problems to be tackled.
- Not as difficult to remedy as claimed; technology will fix many of the problems.
- Not a personal responsibility: “I did not create this mess, so why ask me to clean it up?”
- Not something I’m able to handle: “What can I do, I’m only one person.”

As soft denial persists, the world responds with half-hearted measures that scarcely slow us down in our relentless advance toward a ruinous future—for both the external world of ecology and for the inner world of culture and consciousness.

STAGE 2 (2025-2040) DENIAL SHATTERED BY SHOCKS AND EMERGENCIES: At some point in the 2020s, I expect deep structural trends in climate, population, resources, and more to converge and begin reinforcing one another; thereby creating planetary-scale emergencies that shock humanity, requiring us to recognize Earth-scale challenges of extreme seriousness and urgency. Global temperatures are assumed to rise to 1.5 Celsius (2.7 Fahrenheit) with climate impacts growing. Because I grew up on a farm, one shock that is easy to imagine is this: With rapid

climate change, within a single year, seasons around the planet could be profoundly disrupted, food production could plummet, and famine and civic unrest could spread so widely and quickly that the world is shocked into collective attention. A penetrating shock like this could awaken humanity to the vulnerability and urgency of our situation. There are many other crises in our interdependent world that could spur our collective awakening to their magnitude, urgency and severity. Our responses to these shocks and emergencies include:

- Cultural shock, disbelief, numbness, alarm, amazement, confusion, bewilderment, chaos, and turmoil. These make a coherent social response nearly impossible in the short run.
- Institutional breakdowns at every level (economic, political, and social) are followed by short-term remedies for restart and renewal. Insecurities abound.
- There is both great calm and great concern. In times of crisis, most people move forward with their lives without panic but with compassion and determination. Only a few are paralyzed emotionally by stress and anxiety for the future that is unfolding.
- The systemic nature of the crisis means the entire world is becoming a traumatic and stressful place, not only for humans but all forms of life. People feel that there is nowhere to escape. No place seems safe.
- People are looking for the reason these calamities are happening at the same time. People seek *institutions* to blame and punish (governments, corporations, media, religions), *people* to blame and punish (right/left, Jews-blacks-browns-whites, rich/poor, etc.), and *countries* to blame and punish (high consumption and wasteful).
- Many conflicts emerge—large and small—as some individuals and groups seek to ensure their survival and well-being, often at the cost of others.
- Multiple attempts are made to catalyze global dialogues using the internet to reach to a new understanding for our pathway into the future. Early efforts that give the people of the Earth a shared voice in choosing our future are empowering but fall far short of producing meaningful change.

Although seldom appreciated, the human community has already begun to work together in a cooperative spirit. Here are six areas of global cooperation that demonstrate our ability move into our early adulthood as a species:

- *Weather*—The world weather system merges information from more than 100 countries every day to provide weather information globally;
- *Health*—Nations around the globe have cooperated to eradicate diseases such as smallpox, polio, and diphtheria;
- *Travel*—International aviation agreements assure the smooth functioning of global air transport while global cooperation has enabled the International Space Station to be built by a consortium of nations;

- *Communications*—The international telecommunications union (ITU) allocates the electromagnetic spectrum so that television signals, cellular phones, and radio signals are not overwhelmed with noise;
- *Justice*—A new level of global ethics is emerging as world courts and tribunals are beginning to hold heads of state accountable for policies of genocide, torture, and crimes against humanity;
- *Environment*—Despite lagging on climate action, nations of the world have reached important agreements on ecological concerns such as banning CFC's that damage the ozone layer of the atmosphere

STAGE 3 (2030 onwards) LIFEBOAT COMMUNITIES, A RELATIONAL CONSCIOUSNESS AND

GLOBAL COMMUNICATIONS FLOURISH: Looking ahead, by mid-century, global temperatures climb to 2.0 C (3.6 F) over preindustrial levels, passing a critical tipping point for continued temperature rise. As breakdowns spread and threaten to move humanity towards global collapse, people around the world increasingly pull together in small communities. Three trends are growing throughout the remainder of this century: 1) community building at the local level, and 2) bridging communications from the local to global levels, and 3) the awakening of a feminine, relational consciousness at every level.

Governments cannot keep up with escalating costs from growing breakdowns. As governments fail to meet public needs, the creative energies of local communities are awakened. People are designing themselves into more resilient communities that respond to the challenges of climate disruption and economic breakdowns. The urban landscape is being retrofitted into small “eco-villages” oriented toward sustainability. This is a scale that is small enough for everyone to know one another and yet large enough to contain diverse skills for creating a micro-economy that serves many needs of the community (health care, education for new skills, gardens for food, information systems, etc.). Over the course of this century, a million or more eco-villages or micro-communities blossom in diverse and creative efforts for survival. Micro-communities of every imaginable design are adapted to local conditions and provide islands of sustainability, relative security and mutual support in a chaotic world.

Given the social fragmentation and turmoil of a world in transition, a key concern is for the social glue that can foster strong relationships that hold life together. After nearly 5,000 years of dominance by the masculine mindset (with a focus on increasing independence, wealth, separation, status and power), the world is waking up to the importance of balancing and integrating feminine qualities and capacities. The relational consciousness of the feminine paradigm is vital for balancing the exploitive consciousness of the masculine mindset that has brought us to the edge of ecological ruin. The deep feminine also knows the cycles of nature

within her body, feels a natural connection with the seasons and rhythms of the Earth, and regards nature as a single, living organism. The feminine in both men and women is expressed through relatedness, connection, and intimacy. As the feminine is included more fully we see blossoming expressions of creativity, healing and attunement. The sacred feminine opens to the suffering of life and invites new pathways ahead that embrace intuition, empathy and community well-being.

- Themes of sustainability and renewal dominate everyday life. Intensive efforts are underway to retrofit existing cities and suburbs into “transition towns” that are well adapted to a changing future. Sustainability initiatives are underway around the world, and include efforts for reconciliation, restoration and renewal of eco-systems.
- As systems break down, a new solidarity develops locally (as villages) and globally (as online communities). A new world culture is emerging as people seek the camaraderie and support of physical communities in the context of an intensely rich world of social media and collaborative communities.
- A robust inquiry is underway around the world: “Who are we?”—biological beings only or bio-cosmic beings that connect with the larger universe? “Where are we?”—Do we live in a universe that is dead or alive at its foundations? “What kind of journey are we on?” Are science and spirituality converging to offer a new view of our evolutionary journey?

Lifeboat communities are growing into thriving and resilient communities. Yet, despite creative efforts, people realize: *Lifeboats won't save us when the entire Earth is sinking — becoming inhospitable to the biology and psychology of human life.* In realizing this, another constant that runs through the rest of the century is the rapid awakening of humanity’s collective consciousness made possible by 1) a global revolution in mindfulness and, 2) a deepening revolution in communications technologies.

A mindfulness revolution has continued to sweep through the planet, impacting every area of life, from business and sports to medicine and religion. Pushed by suffering and trauma, people are awakening to the wisdom of Carl Jung who wrote, “In the history of the collective as in the history of the individual, everything depends on the development of consciousness.” The people of the Earth are awakening as an Earth community, mindful of the materialistic paradigm orienting the world, recognizing systemic injustices and inequities, and seeking more promising pathways ahead. Just as we can break free from our egoic trance with the simple practice of mindful attention, so too can we break free of our social trance with the simple tools of collective reflection and attention. Carl Jung said that schizophrenia is a condition where “the dream becomes the reality.” The dream of high consumption lifestyles has become, for many,

an absorbing reality that is increasingly out of touch with the rest of life. Being out of touch with the foundations of life, we cannot expect to be in harmony with the Earth.

The most accessible and powerful tools for transforming collective consciousness are the mass media. By programming the mass media for material success, we have been simultaneously programming the global mind for ecological failure and social collapse. With social mindfulness, we look at the world with fresh eyes and see more vividly what a world with climate disruption, mass migrations, species extinction, and more looks like in the decades ahead. We recognize that if we are to build a sustainable and compassionate future, it will require major changes in our social mindsets and the messages of “success” and the “good life” that are portrayed through the mass media.

Overall, a new media mindset is emerging from an empowered public. With the people of the Earth not simply on the receiving end of media (as a collective *witness* to genocide, climate disruption, intense poverty, etc.), but also capable of offering a collective *voice* for change, a new and empowered force for creative transformation is set free in the world. As the people of the Earth learn how to use the new media tools to come together as a global community and express our collective voice, a new era in human development is born. For the first time in human history, we are acquiring a way to listen to and talk with one another as members of one community. We have the opportunity for an evolutionary leap forward. The next great superpower will not be a nation or even a collection of nations; rather, it will be the billions of ordinary citizens who encircle the Earth and who are increasingly calling, with one voice, for unprecedented cooperation and creative action to bring practical vision and hope to our endangered planet. Recognizing this, diverse “Earth Voice” movements arise seeking to use the new tools of global communication to mobilize a new consensus among the people of the Earth for a sustainable and meaningful pathway into the future.

STAGE 4 (2040 - 2060) MOVING TOWARD COLLAPSE: By the end of this this stage, global temperatures increase to 3 C (5.4 F) producing global famines as agricultural productivity plummets.¹¹ The Amazon rainforest is drying out and burning up as is vegetation around the Earth. Resource wars proliferate. Old cultures of materialism and consumerism are declining while new cultures of aliveness and collaboration are growing. The choice for a lifeway of conscious simplicity is not driven by sacrifice but by more compelling sources of satisfaction—gratifying relationships, time with nature, opportunities for creative expression, and work that contributes to the well-being of life. Minimalism is the razor’s edge that cuts through the trivial and finds the essentials in life. A life that is outwardly simple and inwardly rich involves continuously rediscovering our balance. Simplicity is not simple. The objective of the simpler life is not to dogmatically live with less but rather to live with balance.

Two forces are at work: Breakthroughs in our manner of living and breakdowns in our ability to sustain previous levels of consumption. Breakdowns are visible and increasingly critical. By 2030, at least three billion people suffer from water shortages.¹² Famine and disease are rampant. Global breakdowns spread and threaten to become an avalanche of system failures with large areas of Earth in full disarray and chaos. Massive human migrations are underway with hundreds of millions of people on the move. Many nation-states are becoming ineffectual and some fail altogether. Continued extinction of animal and plant species impoverishes the biosphere. As permafrost melts, releasing methane, global warming and climate disruption accelerates.

Overall, the people of the Earth are experiencing CTPS: “Chronic Traumatic Planetary Stress”—an entirely new mindset. The difference between PTSD (post-traumatic stress disorder) and CTPS is that, instead of a relatively brief and contained episode, the trauma is life-long and even multi-generational in time as well as planetary in scope so there is no escape. A pressing need exists for collective trauma therapy as humanity’s psyche absorbs decades and then generations of suffering.

- In addition to the physical trauma of mass migrations and homelessness, millions are coping with the psychological trauma of being torn from roots of land, culture, community, and livelihood. This pain is purposeful—it dissolves our old identities and leaves us naked in the world—ready to reconfigure our lives along a new track of resilient sustainability and creative meaning. The trauma of this transition, and how we collectively respond, will live into the deep future as formative stories of our species journey.
- Humanity recognizes there is no turning back. There is no return to the earlier world we knew. Feelings of shame and guilt prevail as a ruinous future loom. Humanity is awash with unrelenting grief and sorrow (CTPS) as the Earth of the past is left behind, never to return.
- The growing prominence of the sacred, feminine perspective awakens a conscious appreciation for the Earth as a single, living system. In turn, a growing concern for the health of the biosphere shifts the global conversation to the well-being of all life, not just that of humans.
- A prime topic of conversation around the world is whether humanity has “what it takes”—the maturity and creativity to respond effectively to our collective predicament.

Breakthroughs are less visible but reach deep into the human psyche and soul. A paradigm change has been underway for nearly a century. Gradually, science and wisdom traditions have been converging around a “new” view of the universe, seeing it as a unified, living system with

consciousness as an integral aspect. With science cutting away superstition, we are seeing the world with fresh eyes and returning to the ancient insight that we live within a larger aliveness.¹³ A growing interest in developing lives of felt connection and meaning within a living universe offers a compelling alternative to a focus on material consumption in a dead universe. If we think our Universe is comprised of non-living matter without meaning and purpose, then it makes sense to exploit that which is dead on behalf of ourselves, the most visibly alive. Alternatively, if we have direct experiences of connecting with the aliveness in nature and the world around us, then it is natural to respect and care for the countless expressions of aliveness. These are two radically different ways of looking at the Universe and, in turn, produce dramatically different views of our identity and evolutionary journey. This leads to a startling conclusion: The most urgent challenge facing humanity is not climate change, or species extinction, or unsustainable population growth; rather, it is how we understand the Universe and our intimate relationship within it. Our deepest choices for the future emerge from this core understanding. (The paradigm of a living universe and its implications are developed in greater depth in the appendix to this report.)

Another important breakthrough is in the maturation of collective communication. The “Earth Voice” movement has grown steadily, using blockchain-like technologies to ensure citizen feedback can be trusted. People recognize that many factors are vital if we are to pull together and make the turn to a sustainable and collaborative future, but none is more essential than finding our collective voice to talk among ourselves as mature citizens of the Earth. *The simple capacity for expressing our collective voice changes our collective future.* No longer is the future left almost entirely to the mercy of competing interests of nations and corporations. By awakening our capacity for collective communication, citizens of the Earth begin to work together to envision and create a sustainable and surpassing future. There is rapid growth in an Earth culture and community as people connect in countless, overlapping circles of interest, both face-to-face and through the internet. Trusted voting and feedback systems operate from a local to global scale with their results validated by block-chain technologies. A highly participatory world conversation and culture is growing.

Decades of dialogue in local to global forums are enabling people around the world to become empowered citizens of the electronic democracy spontaneously arising around the planet. We are discovering ourselves as planetary citizens and learning to communicate with ourselves at a global level and to offer meaningful, reflective feedback. This represents a giant step toward our early adulthood and maturity as a species.

STAGE 5 (2060 - 2080) A RACE BETWEEN RUIN AND RENEWAL: Global warming continues to accelerate, melting permafrost which releases methane, a greenhouse gas 20 times more

potent than CO₂. As permafrost melts, by the end of this stage (2080), temperatures rapidly increase to 4.0 C (6.3 F) over pre-industrial levels. Despite stated commitments and repeated pronouncements, public and private responses were neither big enough nor swift enough to avert an escalating systems crisis that entangles every aspect of life. Around the Earth, too many people have been holding back their full efforts. We now realize our labors were too little and too late as breakdowns move rapidly towards a global, systems collapse and the potential for the functional extinction of our species. Trends for this general period include:

- Water shortages: By 2050, almost 6 billion people will suffer from water shortages.¹⁴
- Mass migrations: As we move toward the second half of the century, two billion or more persons (roughly a third of humanity) are expected to be on the move, searching for favorable places to live, in the largest global migration in the history of our species.¹⁵
- Human mega-deaths: The carrying capacity of Earth will support roughly 2 billion persons living in “Western, middle class” lifestyles.¹⁶ With roughly 11 billion people expected by 2100, famine and disease seem likely to result in the die-off of one-third or more of humanity.¹⁷
- Mass extinctions: The die-off of animals and plants continues and the biosphere is increasingly impoverished as, by 2100, roughly half of all plant and animal species become extinct. Life in the oceans is also experiencing progressive extinction.
- Global warming: Global temperatures increase by roughly 4 degrees Celsius over pre-industrial levels and moves into the range where temperatures exceed the capacity of human biology to tolerate, forcing mass migrations into cooler regions of the planet. A vast swath of the mid-latitudes of the Earth is no longer habitable for many plants and animals as well as most people. Millions of people are migrating toward more favorable regions, primarily in the northern latitudes. Large portions of India, Indonesia, China, Central America are being depopulated by climate change, overwhelming countries into which refugees are migrating.

Each one of these catastrophes is a call for our collective awakening. We are crashing into an “evolutionary wall” and confront the stark reality of potential extinction. Grief and communal sorrow permeate the planet. Grief and despair grow as we acknowledge the loss of a healthy natural world and the demise of countless species of plants and animals. The human-constructed system is crashing down upon itself; challenging the meaning and purpose of old institutions, cultures, perspectives, and values.

Because all civilizations on the Earth are facing the prospect of collapse at the same time, one choice is fundamental to our future—do we:

- **Pull together** as a human family accepting all of the *sacrifices* that will be involved, or

- **Pull apart** as human sub-groups enduring all of the *conflicts* that will inevitably result.

If the people of the Earth mobilize themselves to pull together and collaborate for a future of well-being for the Earth, then a cascade of local actions and innovations can quickly follow from that clarity of collective, social will. However, if the social will of the people of the Earth is not self-awakened on behalf of our collective well-being, then we will either turn to authoritarianism or fragment into countless sub-groups as the unresolved wounds of history fester and produce even greater separation.

The shocking reality of extinction has finally hit home and a majority has fallen into a deep pit of sorrow and despair, seeing no way forward, only downward into darkness. The human community recognizes our pivotal choice of pulling together or pulling apart. Vital to our choice is the human awakening that has unfolded over the past century. A global “consciousness movement” with countless expressions—from meditation and yoga to psychedelics, human potential groups, and much more—burst into the world scene in the 1960s and, decades later, has become a mature sub-culture and anchoring presence for a new paradigm of living. In diverse ways, the consciousness movement reveals that, beneath surface appearances, we all share in a deeper unity that transcends differences such as race, culture and history. The people of the Earth do have a basis in felt experience to pull together as a human community. There is a widely shared understanding within the “consciousness culture” that our sacrifices are intensely important for maturing into our early adulthood as a human family. The alternative to maturity is continued adolescence—and extinction.

After countless delays, we can hesitate no more. We must collectively choose among: 1) an ecologically sustainable and conscious pathway into the future, 2) a rigidly authoritarian world enabled by artificial intelligence, and 3) acceptance of our descent into the chaos of resource wars, runaway climate change and the prospect of the functional extinction for humanity.

STAGE 6 (2080 – 2100) HUMANITY CHOOSES TRANSITION AND ALIVENESS: Being unflinchingly realistic, it does not seem likely we will turn away from a path of separation—with its growing inequities, overconsumption of resources, and deep injury to the Earth—unless we discover a pathway into the future that is so truly remarkable, transformative, and welcoming that we are drawn together by the promise of its invitation. Just in time, that pathway is being revealed by insights converging from science and the world’s wisdom traditions. *We are discovering that, instead of struggling for meaning and a miracle of survival in a dead Universe, we are being invited to learn and grow forever in the deep ecologies of a living Universe.* To step into the invitation of learning to live in a living Universe represents a journey so extraordinary that it

calls us to transcend the wounds of history and begin a process of healing and reconciliation to realize a remarkable future we can only attain together. When our personal aliveness becomes transparent to the aliveness of the living Universe, awakening experiences of wonder and awe emerge naturally. *As we open into the cosmic dimensions of our being, we feel more at home, less self-absorbed, more empathy for others, and an increased desire to be of service to life.* These shifts in perspective are immensely valuable for building a sustainable future.

Confronted with a collapsing biosphere, humanity launches geo-engineering projects to halt global warming combined with deep changes in ways of living and consuming. Global temperatures begin to stabilize at 4.0 C (7.2 F). In this stage, humanity fully acknowledges the radical loss of the welcoming world that was our home since the end of the last ice ages nearly 12,000 years ago. We have stripped away the foundations of our former life. Now, the Earth is unproductive, the water polluted, the air dirty, the forests dwindling, creatures dying and humans struggling. The past is gone. We are truly living in a new Earth. Despair is mixed with feelings of promise as people recognize that a different world is waiting. In losing the past we leave behind the grim reality of struggling to live in an indifferent, non-living universe. The future before us is an invitation into a wondrous reality of subtle aliveness. We are on the verge of stepping up into promising future—a transformation that could not have been predicted when we thought we inhabited a non-living universe. But how do we get there?

It was communication that enabled humans to evolve from early hunter-gatherers to the verge of planetary civilization, and it is communication that is enabling us to become a bonded human family that is committed to the well-being of all. At the very time that we need an unprecedented capacity for local-to-global communication, we find the necessary tools in abundance. Humanity has the physical tools and technical skills needed to choose our pathway ahead. The question is whether we have the social maturity?

By the 2080s, we are roughly three generations into the communications revolution encircling the Earth. With decades of experience in “Earth Voice” forums with near instantaneous feedback, we are savvy citizens of the Earth, skilled in using a wide range of tools for global communication. We have been learning our way into the arts of communicating among ourselves. A majority of people are eager for meaningful dialogue and feel a sense of:

- **Identity** as an *Earth citizen*. This does not diminish other identities of nationality, community, ethnicity, etc. but rather acknowledges a new reality of being connected with the entire Earth and its well-being.
- **Empowerment** as an *Earth citizen*. Having participated in numerous forums and seeing how trusted citizen feedback can have a powerful influence on public policy.

- **Esteem** as an *Earth citizen*. Every person's voice and vote count in choosing humanity's future.
- **Solidarity** as an *Earth citizen*. Decades of planetary-scale trauma have been endured and this suffering is creating new bonds of shared trust, equality and community. We recognize restoring the Earth and securing the future is a team effort. We are all in this together with feelings of cohesion and camaraderie.

We have all the technologies we need to build a sustainable future but the critical, missing ingredient is the collective will to choose important changes in how we live, work and consume. At some point in the crucible of these fiery decades, an irreconcilable level of whole-systems crisis emerges, presenting humanity with the unyielding choice to either pull together in global cooperation or pull apart in global conflict. The choice for collaboration or conflict is arising in a world where many of the old boundaries and identities have dissolved in the common struggle for survival. Recognizing we are facing the functional extinction of our species; humanity's collective mind is awakening.

Earth Voice dialogues reach a peak as everyday life comes to a virtual standstill and the people of the Earth consider our pathway into the future. We debate fiercely what to do and where we want to go from here. Do we pull together in cooperation or pull apart in conflict? We reach beneath the surface chaos and discover a deeper, common sense of community and purpose. The collective mind of humanity is becoming conscious of itself. The whole world is watching— itself! We consciously experience our collective presence at this choice point in history and recognize we can shift our collective mind with regard to how we live on the Earth. We reach into our collective psyche and make the choice to move from our competitive adolescence into our collaborative adulthood as a human family. The push of unyielding necessity combines with the pull of opportunity and humanity's path forward is consciously and profoundly reconfigured.

Support for a collaborative future pours in as countless resolutions, petitions, declarations, and ballots from every region and level of the world. The people of the Earth make their sentiments known and confirm the results from the Earth Voice votes. A strong majority of the people of the Earth feel that, despite great sacrifices that are required, the future will be far superior if we pull together in cooperation instead of pulling apart in conflict. This is a pivotal moment in human history; a public commitment to collaboration on behalf of a sustainable and surpassing future is now visibly, consciously and deeply anchored in our collective psyche.

Saying 'yes' to a collaborative future symbolizes the launching a new trajectory in humanity's development. Our collective psyche is coming alive in new ways, directions and depths. The

global brain and global heart are buzzing with new energy as we know ourselves as a single human family that can make creative choices for a common future that is sustainable and meaningful. Once the choice for a regenerative and collaborative future is made, the real race begins. The question of questions is whether we can make this ongoing transition fast enough to avoid collapse and functional extinction.

STAGE 7 (2100 and beyond) A TRANSFORMATIONAL PATHWAY FORWARD: With intensive geo-engineering of the climate combined with new technologies to capture CO₂, global temperatures begin to decline. In another hundred years, we will be on track to relative climate stability within a temperature range habitable for humans. In the meantime, intensive adaptation strategies are underway.

After coming to the edge of utter ruin of the biosphere and the functional extinction of our species, a more mature and intensely reflective planetary-civilization is being born. The trauma of the near collapse of the biosphere has shaken us from our collective, consensus-trance and we now recognize that to establish ourselves as a viable species, we humans must work for the well-being of all, forever attentive to our actions from the local to global scale. As a species, these testing times have moved us from our adolescence to early adulthood. Although enormous challenges lie ahead, a new and inspiring understanding of the evolutionary journey draws us forward.

With intense communication, the growth of regenerative economies, and the conscious redesign of our living and working environments, small successes grow into larger victories, and we realize the potential for achieving a future where the people of the Earth live in harmony with planetary systems and the living universe. People are designing themselves back into nature by creating sustainable ways of living that are adapted to the unique ecology, resources, and cultures of each bioregion.

Step-by-step, the human community recognizes, accepts, and responds to the challenges of living lightly, compassionately, and collaboratively. Over time, great anxiety as to whether our species would survive is replaced by intense feelings of global community, solidarity, and kinship. People say, “Together, we made it through the greatest danger that we could imagine, and we survived. We have truly begun to know ourselves as a human family, with all of our faults and idiosyncrasies as well as potentials.”

We recognize the most immediate and important challenge before us is not outward rebuilding but inward reconciliation. There are so many barriers that have divided and fragmented us as a species—economic, gender, sexual, racial, ethnic, wealth, generational, geographic, species and

more. The first step in being healed is to be heard. A reflective-listening consciousness that invites the people of the Earth into a deeper understanding of these many divisions is the basis for building a new world. In turn, the next major phase of human learning is characterized by movements for communication and reconciliation that, in turn, lead to healing and rebuilding of our world as a community-spirited enterprise. Although many material privileges of the urban-industrial era are no longer available to us, most find satisfaction and a new sense of purpose in the creative challenge of living sustainably on this Earth. Here are the outlines of this new pathway forward with the paradigm that sees our universe as a living system

- **NEW REALITY:** Our “new” understanding of reality is a return to an ancient insight: As the frontiers of science meet the deep insights of the world’s wisdom traditions, the universe is increasingly described as a single, living system.¹⁸ Our aliveness is an inseparable part of the larger aliveness of the universe. We each have an ever-present invitation for learning to live within this living universe. (This is explored in the appendix.)
- **NEW IDENTITY:** Physics recognizes that 95 percent of the known universe is invisible to our physical senses. Because we are an integral part of this universe, the vast majority of who we are is also invisible and is not limited to our physical nature. In short, we are both biological and cosmic in nature—we are “bio-cosmic” beings.
- **NEW JOURNEY:** We have been on a long journey of separation and differentiation, increasingly identifying ourselves with our material possessions and power. Pushed by necessity and pulled by opportunity, we are turning toward home and our wholeness as bio-cosmic beings learning to live in our living universe.
- **NEW ECO-ETHIC:** The devastating negligence and exploitation of the Earth’s resources has pushed the Earth to the brink of collapse. We now truly understand all life on the Earth is an interdependent system and we make a commitment to its restoration. A collective sense of ethical responsibility for the Earth grows in world culture. We see how consumerism makes sense in a dead universe whereas simplicity and non-material wealth makes sense in a living universe.
- **NEW ECONOMY:** In seeing aliveness as the only true wealth, it is only natural to choose ways of living that afford greater time and opportunity to develop the areas where we feel most alive—in nurturing relationships, caring communities, time in nature, creative expressions, and service to others. In seeing the Universe as alive, we naturally shift our priorities from an “ego economy” based on consuming deadness to an “aliveness

economy” intent on growing aliveness. An aliveness economy seeks to touch life more lightly while generating an abundance of meaning and satisfaction. A highly decentralized network of relatively self-reliant eco-villages creates a resilient economic foundation for the planet. Each village has a roughly similar micro-economy taking care of essentials such as food production, education, health-care, solar energy, tech support and more. Individual micro-economies connect through diverse communication networks into global grids that aggregate into a dynamic global culture and economy.

- **NEW CULTURE AND CONSCIOUSNESS:** The entire Earth community needs healing. The traumas—physical, social, psychological and spiritual—are psychic wounds that cascade forward and have become an integral part of our global psyche and culture. Social media are a key vehicle for social healing, bringing unresolved social wounds into our collective consciousness to mend. As the wounds of history and transition begin to heal, a vibrant Earth culture and community is emerging.
- **NEW DEMOCRACY:** Citizenship takes on new life at both the local and global level. Locally, the governance of community relationships is a key concern. Globally, assuring equity and justice are key concerns. At every level, people are learning to gather, speak and work together in citizen forums. From physical “Town Halls” in local communities to bio-regional scale “Electronic Town Meetings” and then upwards in scale to planetary “Earth Voice” convenings, the people of the Earth are finding their voice.
- **NEW SCIENCE:** Humanity is acquiring God-like powers that cry out for the moderating influence of an ecological ethic and bio-cosmic perspective. For example, we are not only curing diseases with genetic engineering, but also creating a new array of genetically augmented humans whose great advantages could make them both essential and unstoppable, almost instantly producing a bio-genetic basis for social status and structure. We recognize each generation of super-humans could establish a new baseline for upgrading the next generation, thereby rapidly advancing the evolution of different types of humans.

A Pathway Toward a Promising Future

We have explored three pathways ahead: 1) **Shattering Collapse** produced by overshooting the ecological limits of the Earth’s ability to renew itself, 2) **Authoritarian Control** enabled globally with hyper-intelligent AI systems combined with authoritarian forms of governance, and 3) a **Great Transition** blossoming from sustainable approaches for living combined with a new spirit of conscious collaboration around the Earth. All three pathways are now present and alive in the world and it is uncertain which will prevail, and in what proportion, in the decades ahead.

All three pathways seem likely to be present at the end of this century. Rather than one dominating all the rest, it seems more probable that, even if a pathway of transformation succeeds, the other two pathways of “chaos” and “control” will still be part of the mix of life. The choices made in this generation will powerfully impact the influence these three pathways have on our unfolding future.

As unthinkable as it may be, it seems realistic to conclude that unless the great diversity of humanity can find an awe-inspiring bridge to a compelling future that is grounded in a commonly felt experience of tremendous, untapped evolutionary potential, we will not have the motivation needed to turn from separation and survival to community and co-evolution. *Our situation is unprecedented: We are being pushed by Earth-sized ecological necessity and pulled by Universe-sized evolutionary opportunity.* If we lose sight of where we are (living within a living Universe), we profoundly diminish our understanding of who we are (beings of both biological and cosmic dimensions), and the journey we are on (learning to live within the depths of cosmic aliveness). *Ultimately, in learning to live in a living Universe, we are learning to live in the deep ecology of existence. This is such an astonishing call to our soulful nature from the deep compassion of a living Universe that we would be cosmic fools to ignore this invitation whose value is beyond price or measure.*

Our situation is unprecedented in human experience. We are being pushed by ecological necessity to heal the wounds of an injured Earth and human division. We are being pulled by evolutionary opportunity to step up to a higher maturity as citizens of a living Earth and Universe. Given the pivotal importance of choices we make at this time, it would be immensely valuable for us to engage in broad, deep and sustained inquiry together in the context of supportive learning communities. Because every aspect of the world will be impacted, people and organizations of every kind are important partners in meaningful change. Transformation is a team effort.

Each generation makes sacrifices for the next as a caretaker for the future. This generation is being pushed by a wounded Earth and pulled by a welcoming Universe to make an unprecedented gift to humanity’s future: working together with equanimity and maturity to consciously realize our bio-cosmic potential and purpose of learning to live in a living Universe. In making the long journey from separation and then into a crisis of planetary-scale initiation, we can finally begin our journey of return and arrive where we started—conscious of ourselves as bio-cosmic beings, in intimate relationship with other forms of life with whom we share the planet, and with the living universe that is our ever-sustaining home.

Appendix

A Living Universe Paradigm and Pathway Ahead

The Nature of Our Cosmic Home

In contemplating a great turn toward this new pathway of evolution, it is important to ask: Is the Universe truly as Plato described—a single living creature that contains all living creatures within it? Seeing the Universe as a super-organism with a permeating aliveness is not new—this was humanity’s basic understanding for tens of thousands of years until it was gradually replaced by the worldview of scientific materialism roughly 300 years ago. Since then, the scientific community has been employing ever more powerful tools to explore the nature of reality and has discovered a Universe of astonishing depth and subtlety. In turn, the ancient intuition of a living Universe is now being reconsidered freshly as science cuts away superstition to reveal the cosmos as a place of unexpected wonder, depth, and sophistication. Here are six key attributes emerging from science and cosmology that point toward a living Universe:

1. A Unified Whole: In the last several decades, scientific experiments have repeatedly confirmed ‘non-locality’ and the discovery that the Universe is a deeply unified system at the quantum level that communicates with itself *instantly*, across impossibly vast distances. To illustrate, at the speed of light, it takes more than eight minutes for a photon to travel from the sun to the Earth and more than 14 billion years to travel across our visible Universe. Yet, quantum physics demonstrates these unimaginably vast distances are traversed and transcended, *instantaneously*, in the quantum realm. Science no longer views the Universe as a disconnected collection of planets, stars, and fragments of matter. Instead, the Universe is fully unified and connected with itself at every moment. In the words of the physicist David Bohm, the Universe is ‘an undivided wholeness in flowing movement.’

2. Empty Space is Not Empty: For centuries, scientists thought empty space was ‘empty.’ Recently, scientists have discovered that an extraordinary amount of background energy permeates the Universe! This invisible energy accounts for an estimated 96 percent of the known Universe. In turn, the entire visible Universe—atoms, people, planets, stars, and galaxies—constitutes only 4 percent of the total Universe. Two kinds of invisible energy are known to exist: dark matter (a contractive force) accounts for roughly 23 percent of the invisible Universe, and dark energy (an expansive force) accounts for approximately 73 percent of the Universe. We are immersed within a vast sea of largely invisible, subtle, but astonishingly powerful energies, with an array of capacities we are only beginning to discover and understand.

3. A Co-Arising Universe: At every moment, the entire Universe is emerging freshly as a singular orchestration of cosmic expression. There is one grand symphony in which we are all players, a single creative expression emerging freshly at each moment—a Universe. While an evolving Universe provides a stunning narrative of ‘horizontal’ unfolding across time, the insight of an emerging Universe adds the ‘vertical’ dimension of the Universe continuously arising in time. Despite outward appearances of solidity and stability, the Universe is a completely dynamic system. Nothing endures. All is flow. In the words of the cosmologist Brian Swimme, “The Universe emerges out of an all-nourishing abyss not only fourteen billion years ago but in every moment.”¹⁹

4. Consciousness at Every Scale: Scientists are finding evidence for consciousness or a knowing capacity throughout the Universe. From the atomic level to the galactic scale, a self-organizing, centering capacity is at work that is fitting for each scale. In turn, the capacity for centering self-organization points to the presence of some level of knowing consciousness. The physicist and cosmologist Freeman Dyson writes that, at the atomic level, “It appears that mind, as manifested by the capacity to make choices, is to some extent inherent in every electron.”²⁰ 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. Max Planck, developer of quantum theory, stated, “I regard consciousness as fundamental. I regard matter as derivative from consciousness. We cannot get behind consciousness. Everything that we talk about, everything that we regard as existing, postulates consciousness.”²¹ An ecology of consciousness permeates the Universe.

5. Freedom at the Foundations: Quantum physics describes reality in terms of probabilities, not certainties. This means that uncertainty and freedom are built into the very foundations of existence. No individual part of the cosmos determines the functioning of the whole; rather, everything is interconnected with everything else, weaving the cosmos into one vast interacting system. In turn, it is the consistency of interrelations of all the parts that determines the condition of the continuously emerging whole. We therefore have great freedom to act within the limits established by the larger web of life.

6. Able to Reproduce Itself: A vital capacity for any living system is the ability to reproduce itself. A widespread view in cosmology is that our Universe may reproduce itself through the functioning of black holes, which represents the seeds from which a new Universe can blossom and grow. Physicist John Gribbin writes, “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.”²² Given the presence of billions of black holes in our Universe, there could be countless other cosmic systems continuously being born by ‘budding off’ from our Universe through the birth canal of black holes. Gribbin writes that Universes are not only alive; they also evolve as do other living systems: “Universes that are ‘successful’ are the ones that leave the most offspring.”²³ The idea that there have been countless Universes evolving through time is not new. A precursor can be found from 1779 when David Hume wrote, “Many worlds might have been botched and bungled, throughout an eternity, ere this system was struck out; much labour lost, many fruitless trials made; and a slow, but continued improvement carried on during infinite ages in the art of world-making.”²⁴

When we bring these attributes together, a clearer picture of our remarkable Universe comes into focus. Our Universe seems to be a living, cosmic hologram—a unified super-organism that is continuously regenerated at each moment and whose essential nature includes consciousness, or a knowing capacity, that enables systems at every scale of existence to center themselves and exercise some measure of freedom of choice. In addition, the Universe appears able to reproduce itself via black holes within a vastly larger cosmic garden or multi-verse where our Universe is but one among countless others. Overall, the vision of our Universe emerging from science is that of a magnificent super-organism evolving in complexity and consciousness. We are completely immersed within this regenerative, holographic universe.

How Wisdom Traditions Regard the Universe

How does the emerging, scientific view of a living Universe fit with the deep insights of the world’s major wisdom traditions? Is there a place of meeting in their respective views? Despite their many differences, when we penetrate the depths of the world’s major spiritual traditions, a stunning understanding about the Universe emerges that is in accord with insights from the frontiers of science: We live within a living Universe that arises, moment by moment, as an undivided whole in an unutterably vast process of awesome precision and power. The following quotes illustrate how this remarkable understanding is expressed across the world’s major religions (excerpted from my book, *The Living Universe*):

- **Christian:** “God is creating the entire Universe, fully and totally, in this present now. Everything God created... God creates now all at once.”²⁵ – Meister Eckhart, Christian mystic

- **Islam:** “You have a death and a return in every moment... Every moment the world is renewed but we, in seeing its continuity of appearance, are unaware of its being renewed.”²⁶ – Rumi, 13th century Sufi teacher and poet
- **Buddhist:** “My solemn proclamation is that a new Universe is created every moment.”²⁷ – D.T. Suzuki, Zen teacher and scholar
- **Hindu:** “The entire Universe contributes incessantly to your existence. Hence the entire Universe is your body.”²⁸ – Sri Nisargadatta, Hindu teacher
- **Taoist:** “The Tao is the sustaining Life-force and the mother of all things; from it, all things rise and fall without cease.”²⁹ – Tao Te Ching
- **Indigenous:** “... 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...”³⁰ – Luther Standing Bear, Lakota elder

Beneath the differences in language, a common vision is being described. The Universe is continuously emerging as a fresh creation at every moment. All point to this same, extraordinary insight. The Universe is not static, nor is its continuation assured. Instead, the Universe is like a cosmic hologram that is being continuously upheld and renewed at every instant.³¹ A universal encouragement found across the world’s wisdom traditions is to live in the ‘NOW.’ This core insight has a clear basis in physics: The present moment is the place of direct connection with the entire Universe as it arises continuously. Each moment is a fresh formation of the Universe, emerging seamlessly and flawlessly. When we are in the present moment, we are literally riding the wave of continuous creation of the cosmos—reality surfing.

A Living Universe in Human Experience

How does a living Universe perspective fit with our everyday human experience? If the unity of existence is not an experience to be created but an always-manifesting condition waiting to be appreciated, then how widespread is this experience in people’s lives? Do many people experience the everyday world around ourselves as ‘alive?’ Scientific surveys give us insight into this key question:

- A global survey involving 7,000 youths in 17 countries was taken in 2008. It found that 75 percent believe in a ‘higher power,’ and a majority say they have had a transcendent experience, believe in life after death, and think it is ‘probably true’ that all living things are connected.³² These views are in accord with a paradigm of aliveness.

We can secure further insight from scientific surveys conducted in the United States that show a measurable transformation in mainstream consciousness is underway.

- In 1962, a survey of the adult population in the US found that 22 percent reported having a profound experience of communion with the Universe. By 2009, the percentage of the population reporting a ‘mystical experience’ had grown dramatically to 49 percent of the adult population.³³
- In a national survey of the US in 2014, nearly 60 percent of adults reported they regularly feel a deep sense of ‘spiritual peace and wellbeing,’ and 46 percent say they experience a deep sense of ‘wonder about the Universe’ at least once a week.³⁴
- A 2002, national Gallup survey asked respondents to rate the statement “I have had a profound religious experience or awakening that changed the direction of my life.” A stunning 41 percent of Americans (about 80 million adults at the time) said the statement completely applies to them.³⁵

These surveys show that experiences of profound communion with the aliveness of the Universe are not a fringe phenomenon but, instead, are familiar encounters for a large portion of the public. Humanity is measurably waking up to a bio-cosmic view of ourselves within the Universe.

Contributions of a Living Systems Paradigm

What does a living systems paradigm offer for understanding the human journey? Importantly, it provides a new perspective on the evolution of human consciousness and deep insights into changes ahead:

- 1. Transformed Identity:** In the paradigm of scientific materialism, we are no more than bio-chemical beings—evolutionary accidents whose consciousness and aliveness are ultimately separate from the rest of the non-living and unconscious universe that surrounds us. In contrast, from a living systems perspective, we are both biological beings and cosmic participants in a vast field of life-energy. Our identity is immeasurably deeper and larger than imagined by scientific materialism: 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."³⁶ We thought that we were no bigger than our physical bodies, but now we are learning that we are participants in the flow of continuous creation of the cosmos. Awakening to our identity as simultaneously distinct

and intimately interconnected with a living universe can help us transform the feelings of existential separation and species-arrogance that threaten our future.

2. Compelling Purpose: A non-living universe is not conscious and is therefore oblivious to any sense of human purpose. As existentially separate life-forms, we may strive heroically to impose some reason for our existence on the universe, but this is ultimately fruitless in a cosmos unaware of life. In dramatic contrast, a living universe is intent on growing self-referencing and self-organizing systems within itself at every scale. We are expressions of aliveness that, after nearly 14 billion years, enable the universe to look back and reflect upon itself. A living universe paradigm brings a profound shift in our evolutionary purpose: We are moving from seeing ourselves living within a fragmented and lifeless cosmos without apparent meaning or purpose, to seeing ourselves on a sacred in a cosmos whose purpose is to serve as a learning system.

3. Deep Meaning & Feeling: If the universe is dead at its foundations, then, in its depths it has no feelings for us as human beings nor does it offer a sense of meaning and purpose. Because a non-living universe is unconscious at its foundations, it is indifferent to humanity and unknowing of our evolving creations and conditions. Nothing will ultimately matter to non-living matter. All will be forgotten. An old saying goes, “A dead man tells no stories.” In a similar way, “A dead universe tells no stories.” In contrast, a living universe is itself a vast story continuously unfolding with countless characters playing out gripping dramas of awakening. If we regard the universe as dead at the foundations, then feelings of existential alienation, anxiety, dread, and fear are reasonable. Why seek communion with the cold indifference of lifeless matter and empty space? If we allow ourselves to drop into life, won’t we simply sink into existential despair? However, if we live in a living universe, then feelings of subtle connection, curiosity, and gratitude are understandable. We see ourselves as participants in a cosmic garden of life that the universe has been patiently nurturing over billions of years. A living universe invites us to shift from feelings of indifference, fear, and cynicism to feelings of curiosity, love, awe, and participation.

4. Natural Ethics: In a non-living, bio-mechanical cosmos, we are existentially isolated as our being stops at the edge of our skin. In turn, it is rational that our scope of ethical concern would not extend much further than ourselves, our family, and others on whom we depend for our well-being. In contrast, a larger scope of ethics can emerge from an intuitive connection with a living universe that provides us with a “moral tuning fork.” 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 can experience a positive hum of well-being as a kinesthetic sense that we call “compassion.” In a similar way, we can also experience the dissonant hum of discordance. 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. When we discover that we are part of the seamless fabric of creation, it naturally awakens a sense of connection with and compassion for the rest of life.

5. Sustainable Living: If the universe is non-living at its foundations, then it has no deeper purpose or meaning and it is only natural that we would focus on consuming material things to minimize life's pains and maximize its comforts. How do we know we “matter”? By how much matter we have in our lives: a big house, a big car, a big bank account, and so on. The more matter we have the more we must matter. An alternative view is that we are the product of a deep intelligence and aliveness 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. With life is nested within life, it is only fitting that we treat everything that exists as alive and worthy of respect. Every action has ethical consequences that reverberate throughout the holographic ecosystem of the living cosmos. In turn, the search for a meaningful way of life shifts from a desire for high-consumption lifestyles toward simpler ways of living that enable us to connect more directly with a living universe of which we are an integral part. Simpler ways of living offer greater time and opportunity for connecting with the aliveness of the world in meaningful relationships, creative expressions, and rewarding experiences.

In conclusion, a living systems paradigm brings with it a transformed description of our cosmic identity, purpose, meaning, consciousness, and ethics as well as a compassionate concern for sustainable ways of living. These are of immeasurable value to humanity as we seek to grow consciously through a time of profound planetary transition and come together to build a promising species-civilization.

Acknowledgements and Appreciations

I appreciate the important and unique contributions to this report by Liz Moyer, Sandy Wiggins, Coleen LeDrew Elgin, Chris Bache, Bill Melton Roger Gibson and Jane Brunette.

I want to acknowledge my great appreciation for two, courageous family foundations—the Roger and Brenda Gibson Family Foundation and the Sloss Family Foundation—that supported this inquiry into a plausible pathway for humanity’s great transition to a sustainable and meaningful future.

Duane Elgin’s portfolio of futures work includes: two years on the senior staff of a Presidential Commission on the American Future: 1970 – 2000; and five years working as a senior social scientist with the “futures group” with SRI International (conducting research on the deep future for the National Science Foundation, The President’s Science Advisor, the Environmental Protection Agency, and more). He is the author of four books that look into the deep future: *Awakening Earth*, *Promise Ahead*, *The Living Universe* and *Voluntary Simplicity*. He co-authored *Changing Images of Man* with Joseph Campbell and a small team of scholars. In addition to writing and research, Duane has also been a trans-partisan media activist since the early 1980s. More than a decade of community organizing experience is reflected in the descriptions of “Earth Voice” in this report. In 1981, he co-organized two non-profits whose work included: challenging the licenses of the four major, television broadcasters in the San Francisco Bay Area (for failing to meet the strict, legal requirement to serve the public interest before their own profits), and developing a pioneering and successful “Electronic Town Meeting” in 1987 with ABC-TV (viewed by over 300,000 people and with six votes from a random sample of Bay Area citizens). His degrees include a Master’s in economic history from the University of Pennsylvania and an MBA from the Wharton School. Duane received the peace prize of Japan—the Goi Award—in 2006 in recognition of his contribution to a global “vision, consciousness, and lifestyle” that fosters a “more sustainable and spiritual culture.” Duane’s website is: www.DuaneElgin.com

References

¹ M. Randle and R. Eckersley, “Public perceptions of future threats to humanity and different societal responses: A cross-national study,” *Futures*, Vol. 7.2, September 2015.

² SRI International Report 4676, “Assessment of Future National and International Problem Areas,” National Science Foundation, Contract: NSF/STP76-02573, February 1977.

³ Duane Elgin, *The Living Universe*, San Francisco, CA: Berrett-Koehler, 2009, p. 141-142.

⁴ The designation of modern humans as *Homo sapiens sapiens* is well-established; see, for example: Campbell, Joseph. 1988. *Historical Atlas of World Mythology, Vol I: The Way of the Animal Powers, Part 1: Mythologies of the Primitive Hunters and Gatherers*. New York: Harper and Row, Perennial Library, p. 22. Leakey, Richard. 1981. *The Making of Mankind*, New York: E.P. Dutton, p. 18. Maxwell, Mary. 1984. *Human Evolution: A Philosophical Anthropology*, New York: Columbia University Press, p. 294. Pfeiffer, John. 1982. *The Creative Explosion: An Inquiry into the Origins of Art and Religion*, New York, Ithaca: Cornell University Press, p. 13. In the popular press, see: *Newsweek* magazine, Nov. 10, 1986, p. 62 and Oct. 16, 1989, p. 71.

- ⁵ 1992 World Scientists' Warning to Humanity, <https://www.ucsusa.org/about/1992-world-scientists.html>
- ⁶ 2017 World Scientists' Warning to Humanity: A Second Notice; See: <https://academic.oup.com/bioscience/article/67/12/1026/4605229>
- ⁷ Arthur Neslen, "By 2030, We Will Pass the Point Where We Can Stop Runaway Climate Change," September 5, 2018, https://www.huffingtonpost.com/entry/runaway-climate-change-2030-report_us_5b8ecba3e4b0162f4727a09f The 2030s may be a period of high instability in climate trends. For example, a 2015 study predicted cooling rather than warming in this decade: "Solar activity predicted to fall 60% in 2030s, to mini-ice age levels: Sun driven by double dynamo," July 9, 2015, Royal Astronomical Society, reported in *Science Daily*, <https://www.sciencedaily.com/releases/2015/07/150709092955.htm>
- ⁸ Owen Gaffney, "Quit Carbon, and Quick," *New Scientist*, January 5, 2019, p. 20.
- ⁹ "The Beginning of the End," *New Scientist*, October 13, 2018.
- ¹⁰ "Workers Flee and Thieves Loot Venezuela's Reeling Oil Giant," *New York Times*, June 14, 2018. <https://www.nytimes.com/2018/06/14/world/americas/venezuela-oil-economy.html>
- ¹¹ Neslen, Op.Cit., 2018.
- ¹² United Nations report, "Nature Based Solutions for Water," <http://unesdoc.unesco.org/images/0026/002614/261424e.pdf>
- ¹³ See the appendix to this report on the theme of a "living universe paradigm" and the section on "A living universe in human experience."
- ¹⁴ "Nature Based Solutions for Water," Op. Cit.
- ¹⁵ A 2017 study by Cornell University showed that rising seas could result in two billion refugees by 2100. <https://www.sciencedaily.com/releases/2017/06/170626105746.htm> Moreover, that data is based on lower sea level rise projections; predictions may well increase in the near future. <https://www.sciencedaily.com/releases/2017/06/170626105746.htm>
- ¹⁶ C. Bradshaw and B. Brook, University of Adelaide in Australia; their work is described in the article, "A killer plague wouldn't save the planet from us," in *New Scientist*, November 1, 2014, p.9.
- ¹⁷ For perspective, the respected and visionary scientist, James Lovelock, believes the Earth's population will fall to as few as 500 million by 2100, with most of the survivors living in the far northern latitudes — Canada, Iceland, Scandinavia, the Arctic Basin. See the interview: Jeff Goodell, "Hothouse Earth Is Merely the Beginning of the End," *Rolling Stone* magazine, August 9, 2018.
- ¹⁸ See, for example, J. Currivan, *The Cosmic Hologram*, Rochester, Vermont: Inner Traditions, 2017 as well as my book, D. Elgin, *The Living Universe*, San Francisco, CA: Berrett-Koehler, 2009.
- ¹⁹ Swimme, B. (1996). *The Hidden Heart of the Cosmos* (p.100). New York: Orbis Books.
- ²⁰ Dyson, F. (1988). *Infinite in All Directions* (p. 297). New York: Harper & Row.
- ²¹ Planck, M. (1931). *The Observer*.
- ²² Gribbin, J. (1993). *In the Beginning: The birth of the living universe* (p. 244). New York: Little Brown and Co.
- ²³ *Ibid*, p. 252.
- ²⁴ Hume, D. Critique of the design argument. Available at: <http://philosophy.lander.edu/intro/introbook2.1/x4211.html>.
- ²⁵ Fox, M. (1983). *Meditations with Meister Eckhart* (p. 24). Santa Fe, NM: Bear & Co.
- ²⁶ See, for example, Barks, C. (1995). *The Essential Rumi*, San Francisco: HarperSanFrancisco.
- ²⁷ Suzuki, D.T. (1970). *Zen and Japanese Culture* (p. 364). Princeton, NJ: Princeton University Press.
- ²⁸ Maharaj, S.N. (1973). *I Am That*. Part I (trans., Maurice Frydman; p. 289). Bombay, India: Chetana.
- ²⁹ Lao Tsu, (1972). *Tao te Ching* (trans. Gia-Fu Feng and Jane English). New York: Vintage Books.
- ³⁰ Luther Standing Bear, quoted in Brown, J.E., (1973). Modes of contemplation through actions: North American Indians. In *Main Currents in Modern Thought* (p. 194). New York, November-December, 1973, p. 194.
- ³¹ The view of our universe as a 'cosmic hologram' is described in a book by Jude Currivan, *The Cosmic Hologram*, Vermont: Inner Traditions (2017). Also, see Michael Talbot, *The Holographic Universe*, New York: Harper (1992; 1st ed.).

³² Roehlkepartain, E.C., Benson, P.L., Scales, P.C., Kimball, L., & King, P.E. (2008). *With their own voices: A global exploration of how today's young people experience and think about spiritual development*. Search Institute, www.spiritualdevelopmentcenter.org. Also, see article by Jane Lampman in the November 6, 2008 edition of the *Christian Science Monitor*.

³³ Greeley, A., & McCready, W. (1975, January 26). "Are we a nation of mystics." *New York Times Magazine*.

³⁴ Pew Research Center. (2015). "U.S. public becoming less religious." See:
<http://www.pewforum.org/2015/11/03/u-s-public-becoming-less-religious>

³⁵ George Gallup Jr, "Religious Awakenings Bolster Americans' Faith," Gallup Organization, January 14, 2003.
<http://www.gallup.com/poll/7582/religious-awakenings-bolster-americans-faith.aspx>

³⁶ Swimme, Op. Cit., p. 112.