

SANITY IN THE TIME OF ECOLOGICAL BREAKDOWN AND COLLAPSE

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INTRODUCTION

This essay is my months-long, deep inquiry—through writing and painting—in responding to the following concerns raised by Geologist Father Thomas Berry. It is also a meditation on the essence of life. While I primarily define myself as a professional visual artist, I have been writing about issues of global breakdown for fifteen years—and thus my two disciplines have merged in this exploration. This visual essay is a deeply personal reflection moving from Life to Overshoot, then to Sanity, and finally toward Ultimacy.

Father Thomas posed the right questions and pointed to the necessities for human transformation starting in the 1980s. He saw the threats and understood that humans were destroying our ecological underpinnings, and not, as commonly thought, enjoying a ride through an eternity of progress mediated by human cleverness and technologies.

In an early passage in his book *The Dream of the Earth*, Thomas called for the reinvention of the human “as a species within the community of life species. Our sense of reality and of value must consciously shift from an anthropocentric to a biocentric norm of reference.”¹

Importantly, “our sense of reality” determines how we experience life, the choices we make, and how we live. The closer we can hew to reality, the saner we will be. Seems obvious, yet the vast majority of the world operates under delusions that are destroying life and the Earth. Thomas rightly emphasized the needed shift from the aberration of anthropocentrism (human-centered) back to the wholeness of biocentrism (Earth-centered).

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¹ Thomas Berry, *The Dream of the Earth* (Sierra Club Books, 1990), 21.

Later in the book, he poses necessary but difficult questions to consider and respond to:

A radical reassessment of the human situation is needed, especially concerning those basic values that give to life some satisfactory meaning. We . . . must begin where everything begins in human affairs—with the basic story, our narrative of how things came to be, . . . and how the future can be given some satisfying direction.²

As an ardent scholar of world civilizations, Berry repeatedly called for a new beneficent civilization. *Whether this is even possible is the most pressing question of our fraught time.*

To explore Berry's questions, I begin in Parts I and II with relevant aspects of life and death. In Part III, I examine humanity's relationship to the web of life. In Parts IV and V, I consider the shift from biocentrism to anthropocentrism, and the consequences through the millennia. The devastation of global-scale extraction is a further result, described in Parts VI and VII.

The groundwork is now laid to explore Berry's question of an ecological civilization in Part VIII and overshoot in Part IX. Finally, we explore how we might relate to one another in Part X and to life itself in Part XI.

PART I. LIFE

“Tadpole Eggs,” oil on canvas, 8” x 9”

*Tadpoles-to-be await their moment to burst forth.
Mother frog lays many eggs, as few of her brood will
survive to adulthood.*

From its very origin fourteen billion years ago, the universe was geared for the possibility of life, in its evolution of intrinsic properties. But within the vast Milky Way, so far as we know only Earth has the right conditions for life. That the universe even exists is a marvel; but life emerging from lifeless matter is the fundamental miracle.

Life is a struggle for energy, which derives from our sun. Photosynthesis is the dance of plants with the sun, capturing its energy as the core of the food chain. Life competes for energy-rich carbon for growth and reproduction.



² Thomas Berry, *Dream of the Earth*, 124.

Life invented countless ways to hunt and to evade, and to compete and to cooperate. These counter-balancing forces drove evolution, bringing stunning diversity to life forms.³

Living is hard. Even on our livable Earth, difficult conditions inflict challenge and discomfort. Even so, life universally feels the urge to exist, to stay alive and experience the world.

PART II. MORTALITY

Existence is precious, of course, but temporary. In its very design, the universe supports life, but also requires breakdown of matter-energy into disorder, into chaos, into “entropy.” It is a great accomplishment of the cosmos that life captures the sun’s energy to create order and temporarily contain entropy. But entropy eventually prevails—all organisms break down and die.

The existence of life on Earth is a temporary gift, not eternal. Favorable conditions for life itself on Earth will eventually end—not a matter of if, but when. Indeed, several times in Earth’s history, life was nearly extinguished by massive disruptions, such as meteor strikes and series of supervolcanoes.

However, life’s existence is now threatened by one of its very own creatures.

PART III. SHATTERED WEB

“Shattered Web,” watercolor on canvas, 12” x 9”

How long can an orb hold together when its strands are repeatedly broken?

Fauna and flora, from bacteria to blue whales, have integral roles in the great “web of life.” Over eons, “life communities” evolved: interdependent members that dance in dynamic equilibrium.

Only recently, one genus, “*Homo*,” grew a big brain with unprecedented capacities.



³ While the role of competition’s role as a driver of evolution is emphasized, cooperation is equally (if not more) important. Cooperation is at the very cellular basis of life. Billions of years ago, certain cells merged symbiotically with new ways to capture energy. This allowed complex organisms to develop. Evolutionary biologist Lynn Margulis, maintained that symbiosis was the major driver of evolutionary change. Dick Teresi, “Lynn Margulis Says She’s Not Controversial, She’s Right,” *Discover Magazine* (June 16, 2011), <https://www.discovermagazine.com/the-sciences/discover-interview-lynn-margulis-says-shes-not-controversial-shes-right>.

Importantly, the big-brained *Homo sapiens* developed tribal culture—languages, beliefs, rituals, stories, and artistic expression. Humans are malleable, shaped by culture, not by any given instinct.

The big brain is a double-edged sword. Culture can convey truths that foster wisdom—or convey delusions that foster insanity. Humans can use their intelligence to either nurture the living world or to destroy it.

Humans gradually captured more energy as they invented better hunting techniques, tools, fire, cooking, clothing, shelter, and eventually agriculture. In controlling nature, anthropocentric humans lost the communion with the life's web, believing themselves superior to all other creatures. Over time, they have plundered the web and shattered its interrelationships.

PART IV. THE COSTS OF CIVILIZATION

Human societies impact nature. Even nomadic foragers shaped ecosystems, especially through fire. Yet the shift from nomadic hunter-gatherer cultures to settled agricultural civilization brought dangerous changes an order of magnitude greater.

Hunter-gatherers felt an “I-Thou” sense of respect and kinship with the life communities that supported them. Seed-sower cultures came to regard nature as an “it,” as resources for human advancement. Origin stories shifted from “sustainer Earth goddesses” to “dominator sky gods.” Values of nurturance-relatedness were diminished in favor of aggression-dominance.

Agriculture brought unprecedented impacts. Populations grew and massed in settled cities. Like parasites, cities import resources from surrounding lands—a defining characteristic of “civilization.” Land was plundered to grow food, to build settlements, and to extract metals. Growing cities and degraded land drove the expansion of kingdoms on the brutal road of conquest, enslavement, and genocide of Indigenous peoples.

Civilization expansion strategies eventually fall into “progress traps”⁴—ever-deepening, unsustainable commitments. These pyramid schemes eventually collapse when they exceed the land’s “carrying capacity,” that is, the ability to regenerate and support populations.

Innumerable civilizations have risen and inevitably have fallen over the last ten thousand years. By their very nature civilizations are not sustainable, and all previous civilizations have exemplified this reality.

⁴ “A progress trap is the condition human societies experience when, in pursuing progress through human ingenuity, they inadvertently introduce problems that they do not have the resources or the political will to solve for fear of short-term losses in status, stability or quality of life. This prevents further progress and sometimes leads to societal collapse,” Wikipedia contributors, “Progress trap,” *Wikipedia, The Free Encyclopedia* (footnote and hyperlinks omitted). For an in-depth explanation of progress traps, see Ronald Wright, *A Short History of Progress* (Carroll & Graf, 2005).

PART V. ANTHROPOSPHERE

“Potash Ponds 1,” acrylic on canvas, 24” x 24”

We have converted over half of all land to human use—mostly in recent decades.

Through millennia, civilizations have advanced in size and complexity through colonialism, capitalism, and the scientific revolution.

The explosive power of oil, coal, and methane—harnessed as “energy slaves” to do the hard work—ushered in the “Great Acceleration”⁵ of human power. Fossil fuels built a globalized “industrial civilization,” with values of speed, efficiency, and mechanization. Because the tools and machines of industry magnify human power exponentially, William Catton coined the term “*Homo colossus*” for modern humans.⁶ Now fossil fuels are embedded in every aspect of human life.

Endless growth was enshrined in laws and economic structures. Nature’s abundance was used for human wealth, as a subset of the economy. Yet the economy actually derives from nature. Resource depletion has never been realistically considered, and now we are beginning to scrape the tarry dregs at the bottom of the barrel.

As the end result, humanity has turned the biosphere into an “anthroposphere”—converting life, land, and minerals into energy, stuff, and waste.



⁵ Will Steffen, et al., “The trajectory of the Anthropocene: The Great Acceleration,” *The Anthropocene Review* 2, no. 1 (2015), https://www.bpb.de/system/files/dokument_pdf/Steffen2015ThetrajectoryoftheAnthropoceneTheGreatAcceleration.pdf.

⁶ William Catton, *Overshoot: The Ecological Basis of Revolutionary Change* (Urbana, IL: University of Illinois Press, 1982). *Overshoot* is a definitive classic, one of the most important books of the 20th century. With profound implications, Catton applies the biological term overshoot to the human situation.

PART VI. RACING HEART

“Rare Earth Mining, Myanmar,” watercolor on paper, 7.5” x 15”

Militias control rare earth extraction in Myanmar, using child labor and suppressing local resistance.



Metal weapons and tools bestowed great powers to kingdoms and defined human eras of conquest: Copper Age, Bronze Age, Iron Age, and now the Fossil Fuel age.

Over time, the race to increasingly consume has demanded ever more complex schemes for extracting materials. Violence is inseparable from extraction—literally defined as the act of taking and removing by force.

Mining is hard, dangerous, dirty work. Mining’s harms abound: habitat loss, toxic tailings, ruination of ecosystems, militias, forced resettlements of local peoples, and slavery.

Extraction fuels the racing heart of this monster called industrial civilization. Extraction’s products—hydrocarbons, metals, minerals, and materials—circulate through the system, to provide the energy to “live” another day. Like a vampire, it sucks the life-force from the true body of life, never giving back.

But now civilization’s “nutrients” are running low and toxins are accumulating everywhere. It is fighting for its survival, requiring ever more extraction to feed its increasing appetite.

PART VII. RAVENOUS

“Shell and Mine,” watercolor and gouache on paper, 9” x 12”

The upward spiral of the shell-form is desacralized by the downward spiral of the pit mine.



The fate of a freshwater snail hangs precariously in the balance of the so-called “clean energy revolution.” The King’s River Pyrg is found only in springs at Thacker Pass, Nevada. A proposed lithium mine there would annihilate this snail.

“Low carbon energy” is hungry for a vast array of minerals, including lithium, cobalt, nickel, and rare earth minerals. Multiply the proposed Thacker Pass project several thousand-fold, with a global surge of mines, smelters, wind-solar siting, and infrastructure. What is the real motivation here: Is humanity trying to save the planet or save civilization?

PART VIII. IS BENEFICENCE POSSIBLE?

“Dissonance,” acrylic on canvas, 14” x 18”

Cognitive dissonance results when we are told that the massive destruction of the living world is on behalf of “green” technology to save the planet.



Our world is breaking down faster than expected in multiple, interactive crises. We face “predicaments,” not problems; there are no “solutions,” only responses. In the face of this, can humanity become a beneficent presence on the planet? Is a benign civilization possible?

An “ecological civilization” is simply impossible. Using non-renewable resources in order to attain “sustainability” within industrial civilization is a delusion. Electric cars, circular economies, carbon sequestration, green hydrogen, renewables, efficiencies, and large-scale regenerative agriculture are dependent on irreplaceable fossil fuels, extraction, and toxic processes, while providing no carbon reduction. They will harvest only further devastation.

The only sane course is drastic reductions in consumption. Yet the magical belief in technology's salvific powers still grips humanity.

PART IX. OVERSHOOT

“Malden 1: After the Inferno,” acrylic on canvas, 20” x 26”

A wildfire consumed the town of Malden, Washington in September 2022. Disasters are increasing everywhere.



In spite of technology's dead-end, we cannot return to simple, land-based lifeways. We are too far into “overshoot”—too many people are taking too much, thus far exceeding the biosphere's carrying capacity.⁷

Western civilization won the resource lottery when it invaded the Americas, Africa, and Asia. But now our global civilization has nowhere else to expand. Global industrial civilization has reached physical limits and its collapse is now underway. Progress traps are reaching their inescapable conclusions: Decline and breakdown are becoming obvious.

We are decades into abrupt climate change that will trigger mass die-offs and extinctions of plants, animals, and humans in this century. But climate chaos is merely one symptom of overshoot among many others: biodiversity loss, plastics, toxins, war, and so much more. Simply put, overshoot is omnipresent and determinative.

After ten-thousand years, the verdict is in: Anthropocentric, expanse-based civilization is destroying the living biosphere and humanity.

Certainly, individuals can practice local-scale regeneration, rewilding projects, and cooperative arrangements, but there's no way to scale up enough to alter the cumulative system excesses.

If one understands the sum or substance of our plight, how then does one live with meaning or purpose?

⁷ Catton, *Overshoot*, 17-74.

PART X. SANITY

To survive, life must respond to challenges. If humans remain closed off in delusional fantasies, then there can be no agreed-upon reality, and no possibility for cooperation. Perspectives grounded in physics, systems thinking, and Earth system science are required.

Contradictions loom. We love our gadgets, comforts, and conveniences. We are all unavoidably complicit since we cannot shed our dependence on this all-encompassing system.

We are innately competitive and selfish *and* we are cooperative and altruistic. Our civilization perpetuates competition for resources and locks us into negative patterns. For the vast part of human existence, we lived in cooperative, egalitarian bands. Only in the last phase did we take the aberrant direction, choosing “rupture-of-the-living-world,” over “rapture-with-the-living-world.”

We cannot return to our hunter-gatherer past. However, we can consider who these humans were before the rupture and emulate their virtues. Consider simplicity, gratitude, service, courage, and compassion. These virtues are especially needed in relating to those still in denial (nearly everyone), and in relating to ourselves.

We are all challenged by what is unfolding. A clear relationship to reality frees us from the hope vs fear wrestling match, as we come to face and accept what is inevitable and how we can respond. These are sane responses to the human predicament.

PART XI. ULTIMACY

“Milky Way,” watercolor and gouache, 9” x 12”

That the universe exists, and we exist in it, is worthy of awe and wonder.

In our long scientific quest, humans discovered that nature and the universe are far more majestic, brilliant, and mysterious than previously conceived.

The universe’s long evolutionary process began with a world of hydrogen. Eventually, fusion and evolution over fourteen-plus billion years led to human culture. Despite humanity’s long trail of destruction, Thomas Berry rejected the idea that the human is



an addendum or an intrusion and thus finds no real place in the story of the universe. In reality the human activates the most profound dimension of the

universe itself, its capacity to reflect on and celebrate itself in conscious self-awareness.⁸

“Religion” removed divinity from the Earthly realm, placing “God” in an otherworldly heaven. But ultimate vital force and intrinsic intelligence is found rooted in “communion” with the miracle of life—right here and now. This is the true “rapture” of souls: to feel the ecstasy of existence, even in the midst of this “apocalypse.”

In these challenging times, we need to ask ourselves: Can we experience life as a precious gift? What matters most to us in these uncertain times? What is our relationship to impermanency, the brevity of life? Who do we need to get complete with; what loose ends do we need to bind?

Our most important gift is existence itself. Life is ecstasy. Now is eternal. Drink these two elixirs. These are the gifts. Drink deep.

⁸ Berry, *Dream of the Earth*, 131.