

Article

Is God Sustainable?

Eugene Halton

Department of Sociology, University of Notre Dame, 4060 Jenkins Nanovic Hall, Notre Dame, IN 46556, USA; ehalton@nd.edu

Abstract: This essay approaches the “God is dead” theme by offering a new philosophical history addressing what would make belief in divinity, in God, sustainable and unsustainable. I claim that the death of nature and the death of God in the modern era are manifestations of a progressive distancing from a religious philosophy of the Earth that guided human development until the beginnings of civilization. I outline within the space limitations here a new way of looking at the rise of civilization and the modern era by re-evaluating large-scale epochal beliefs and assumptions of progress within a context of *sustainable ends* and what I have termed *sustainable wisdom*. From an original evolved outlook I call *animate mind*, rooted in a religious philosophy of the living Earth, succeeding contractions of *anthropocentric mind* and *machine-centric mind* have regressively disconnected from the community of life. This trajectory courses the disconnect from the livingness of things as defining cosmos, to that of machine-centric mind in the modern era, a devolutionary elevation of the feelingless machine, of deadness, of what Erich Fromm described as cultural necrophilia. I propose rebalancing these later contractions of anthropocentric and machine-centric mind with that deeper reality of animate mind, forged as the human evolutionary legacy still present in the human body-mind today. The renewed legacy of animate mind provides a key to what a sustainable God might mean.

Keywords: sustainable wisdom; animate mind; anthropocentric mind; machine-centric mind; contractions of mind; animism; axial age; moral revolution; religions of the book; biophilia



Citation: Halton, E. Is God Sustainable? *Philosophies* **2024**, *9*, 93. <https://doi.org/10.3390/philosophies9040093>

Academic Editor: Lissa McCullough

Received: 30 March 2024

Revised: 3 June 2024

Accepted: 22 June 2024

Published: 26 June 2024



Copyright: © 2024 by the author. Licensee MDPI, Basel, Switzerland. This article is an open access article distributed under the terms and conditions of the Creative Commons Attribution (CC BY) license (<https://creativecommons.org/licenses/by/4.0/>).

1. Introduction: The Death of Nature and the Deadness of God

Philosophical commentaries on the “God is dead” theme often concern the idea of cessation, of whether belief is no longer justified or possible, or whether there is no God in the first place. I take a different tack here, by proposing a new philosophical history that addresses what would make belief in divinity, in God, sustainable and unsustainable. I claim that the death of nature and the death of God in the modern era is not a mere coincidence, and not simply the result of the scientific revolution. Rather they are manifestations of a progressive distancing from a philosophy of the Earth that guided the long course of human development until the beginnings of civilization.

When Nietzsche noted in 1887 that: “God is dead, that the belief in the Christian God has become unbelievable. . .”, he was claiming that the prime belief of Christianity was no longer sustainable, no longer capable of holding Western civilization together as a unifying symbol. The developments of science, technology, and industrial capitalism had empowered new materialist and secular outlooks not dependent on the Judeo-Christian religious worldview that had anchored Western civilization. And more, the death of God signified the loss of what had been taken as a basic and everlasting moral foundation, foreshadowing a collapse into uncertainty: “. . . and how much must collapse now that this faith has been undermined . . . the whole of our European morality” [1] (Book V, Section 343, p. 279). Yet that very loss and uncertainty held for Nietzsche the promise of becoming liberated from idealizing belief and reconnecting to the passionate art of living.

It was not simply an undermining of faith in Nietzsche’s time by those secularizing forces of science, technology, or economic materialism that made belief in the Christian God untenable. Over 2 billion people, more than 30 percent of the world’s population, continue

to believe in Christianity today. Almost 4^{1/2} billion people today are Christian or Muslim, more than half the people on Earth. The “religions of the book”, Judaism, Christianity, and the Muslim religion, are living legacies of what Karl Jaspers termed the axial age, a period centered around 2500 years ago that brought forth the major world religions and new political and intellectual outlooks, as I will discuss later. Yet those billions of believers are also active participants in the conditions contributing to a progressively unsustainable Earth, not simply by their actions, but also by the beliefs they hold, including their religious beliefs.

One might say from Nietzsche’s perspective that those idealizing beliefs are not simply divorced from the unsustainable Earth, but active contributors to the problem. The idealization of life is not an enhancement of life, but rather a divorce from it, including the larger life of the Earth. And secular science, technology, and economy, though seeming alternatives to idealizing religious belief, also harbor idealizing tendencies, an idealizing of materialism and abstraction.

Nietzsche’s words from back then still echo true today:

the faith with which so many materialistic natural scientists rest content nowadays, the faith in a world that is supposed to have its equivalent and its measure in human thought and human valuations—a “world of truth” that can be mastered completely and forever with the aid of our square little reason. What? Do we really want to permit existence to be . . . reduced to a mere exercise for a calculator and an indoor diversion for mathematicians? [1] (Book v, Section 373, p. 335).

“Indoor diversion” indeed. The dream of modern technoscience to master nature completely through the progress of rational reason, to the neglect of other aspects of reasonableness, resulted instead in radically amplifying a progressively unsustainable Earth¹. Objectivism, not as a valid method limited to the domain of theoretical scientific inquiry, but generalized as an accurate understanding of existence for practical life, represents a constricted rendering of reality to “our little square reason”.

To its credit, science has also discovered the physical sources of ecological and climate unsustainability, of the emergent Anthropocene event underway, and is essential to correcting that crisis. But it remains questionable at best whether the powers released by science, technology and economy can be harnessed, bounded and repurposed. To do so requires more than technical solutionism, rooted in assumptions of a completely calculable machine-like world, abstracted from the incalculable qualities and potentialities of organic life and the living Earth. It requires a basic transformation of outlook on the scale of some of those from the past, such as the axial age. The cascading global crisis we face today is not simply a technological, economic, or political one, but also a moral, mental, and spiritual one, a question of mindset [2]².

The course of human history since the beginnings of civilizations involves some profound transformations in social organization as well as in worldviews, religions, and conceptions of divinity. Historian Carolyn Merchant’s book titled *The Death of Nature* provides one example. In it she describes how the rise of the modern mechanical universe paradigm brought about a completely changed relationship to nature:

The removal of animistic, organic assumptions about the cosmos constituted the death of nature—the most far-reaching effect of the Scientific Revolution. Because nature was now viewed as a system of dead, inert particles moved by external rather than inherent forces, the mechanical framework itself could legitimate the manipulation of nature. Moreover, as a conceptual framework, the mechanical order had associated with it a framework of values based on power, fully compatible with the directions taken by commercial capitalism. [3] (p. 277)

Where earlier worldviews took life as the given and death as a mysterious transformation, the great question in the modern era now became how animate life could arise from inert matter, from “a system of dead, inert particles moved by external rather than inherent

forces". In this sense, the modern era not only witnessed the death of God, in the sense Nietzsche and others claimed, but also the death of nature.

Both deaths manifest what I term a contraction of mind in the course of history, from an original relational perspective usually associated with animism, and that philosopher John Stuart-Glennie thought would be better termed *panzooism*. By panzooism Stuart-Glennie meant an attitude of attunement to the livingness of things inherently possessed of powers in our relations to them, rather than, as with E. B. Tylor's conception of animism, an object imbued with a spirit from without. Mind then contracts to a human-centered outlook that emerged with agriculture and took hold especially with the rise of cities and civilization. And later, in the modern era, mind contracts further to a machine-centric worldview.

The usual story of history involves beliefs that civilization represents progress over pre-agricultural ways of hunter-gatherers, that this progress shows itself especially in the Greco-Judaic-Christian roots of the West, that it achieves new footing in the rise of the modern scientific world-view, and that civilization is itself that process whose chief end has been the progressive development of reasonableness. How could one deny, for example, the clear progress visible in the sciences? Or the new possibilities opened by literacy, cities, and the arts? But the measure of progress is not so simple. Let us suppose another story. Suppose that civilization also represents a regressive de-maturing of consciousness, cut loose from its evolutionary moorings, including long-term sustainable relations with the Earth.

2. The Eclipse of Sustainable Wisdom

The extended course of human evolution offers many clues for today not only about what being human involves, but also about the Earthly sources of religion. These ethnographic and archaeological clues suggest that at its basis what we term "religion" is the living effort to connect to and participate in the all-surrounding life of ongoing creation, which touches all things, including us. They suggest that the key to a sustainable God is a sustainable Earth.

The looming beginnings of the Anthropocene, with mass species population decline and extinctions due to human excesses and human-caused climate change, imply that scientific, technological, or even economic or political advances alone cannot measure progress, when those measures of progress neglect the viewpoint of the sustaining and sustainable Earth. Human history has involved a distancing from the wild Earth as a primary source of spiritual and practical sustenance for religion, especially in the religions of the book. By contrast, Buddhism and Daoism retain a greater appreciation for the natural order as a spiritual source than the religions of the book. And the rise of science in the modern era also marked a paradoxical disconnect from the organic model the Earth had provided to one based on the abstract model of the machine, as Merchant noted. That dual disconnect of religion and science from a philosophy of the Earth marks an eclipse of what I have termed *sustainable wisdom* [4–6].

By sustainable wisdom I mean a mindset and attitude not only sufficient to promote the well-being of humans, as the term wisdom might imply, but also sufficiently in harmony with the living Earth we depend on to survive and prosper. Sustainable wisdom involves a balanced relationship with the Earth, a learning relationship, so that its myriad forms of life, including humans, can survive and thrive and evolve in the long run. It involves scientifically, technically, economically, and even religiously relating to the Earth not as something put here for humans to take, but as something marvelous through which the drama of the great mystery passes and out of which humans were bodied forth to serve.

I take history as involving a tension between the long-term legacy of human evolution, still incorporated in the human body and psyche today, and the shorter-term heritage of civilization from its beginnings to the present. Each of us lives in an interplay between our indigenous bodies, evolved through hunting and gathering well over two million years, and our civilized selves, based on structures that date back some 5 or 6 thousand years at most. We are genetically and developmentally endowed with an innate sociality and

expectations for communication at birth, derived from the subcortical brain and already capable of responding vocally to the mother or caretaker. The newborn brain comes already equipped to engage in precise mimetic narrative, “communicative musicality”, without the benefit of what will become in a few years the narrative, symbolizing cortex [7] (p. 4). In the course of its development the bantering dialogue that is truly a social and biological interaction—one of nature-nurture combined—will generate a child capable of symbolic interaction and verbal language.

We humans inhabit selves shaped by habits of cultures and symbolic communication as well as larger civilizational mindsets. And we are also primates inhabiting bodies uniquely characterized by a greater neoteny, prolonged newborn-like characteristics and extended development, whose increased plasticity not only allows for greater cooperative communication and attunement, but also after a certain point requires it. As anthropologist Agustin Fuentes put it: “Humans are the strangest primate” [8] (p. 11).

Humans are also primates with capacities for omnivorous “universal attention”, as Ortega y Gasset put it describing hunting. And the well-known study of London taxi drivers revealed how the attention paid to the details of the city through extensive navigation experience resulted in significantly larger posterior hippocampi portions of the brain compared to control subjects. [9] This greater plasticity as relatively unmatured primates, capable of universal attention, suggests that close attunement to the ecological intelligence of the circumambient community of life could provide an optimal means and model for human maturity. It provided a basis for optimal development that psychologist John Bowlby termed *the environment of evolutionary adaptedness* [10] (p. 58). By contrast, taking other relatively unmatured primates, namely humans, as ultimate models for living, apart from the community of life, might be a recipe for relative immaturity and unsustainable folly. That, I claim, is the story that began with the advent of civilization, of history.

3. History as Progressive Confinement

Many philosophies of history since the Enlightenment assumed progress as a given. I have devised a new philosophy of history, taking civilization thus far not as a linear advance of progress, as Hegel, Comte and many others have done, but rather as involving a progress in rational and technical precision, paradoxically counteracted by a regressive contraction of mind [11,12]. Within the space limitations here I outline a different way of looking at the rise of civilization and the modern era by re-evaluating large-scale epochal beliefs and assumptions of progress within a context of *sustainable ends*. From this standpoint the changes brought about by agriculturally based civilization and the later axial age involved a problematic separation from the sustaining relationship with the Earth, a practical but also ritually reverential relationship that had proved crucial to human evolution. Modern materialist civilization is rooted in a variety of fundamental changes in the human relation to habitat, to socialization practices, to religious worldviews and socio-cultural organization, all of which contribute to the modern death of God theme.

I’m taking a large view of history as involving three stages in the contraction of mind, moving from an original evolved outlook, that which I term *animate mind*, rooted in a religious philosophy of the living Earth, to succeeding contractions I term *anthropocentric mind* and *machine-centric mind*. *Animate mind* represents the original practical-religious attunement and learning relationship to the livingness of things, to the greater *animate Earth* through which we evolved as hunter-gatherers over hundreds of millennia into the bodies we inhabit today. The beginnings and rise of agriculturally-based civilization mark a radical transformation, the development of *anthropocentric mind*, wherein the human world becomes magnified and progressively distanced from the wild Earth. *Machine-centric mind* represents a further contraction from human-centered to a machine-centered consciousness, produced by the rise of modern civilization. It moves to an even more narrow focus, expanding out of late medieval Europe and the developments of modern science, technology, and capitalism, where the machine and calculability became the model

of the ultimate, the objectivist filter through which the world is to be understood and made to fit.

This trajectory courses the disconnect from *panzoonism*, the livingness of things as defining cosmos, to that of machine-centric mind in the modern era, a devolutionary elevation of the feelingless machine, of deadness. It marks the over-elevation of mind and belief over perceptive awareness as a basis for religion. One might say that it culminates in an ultimate Godlike deadness rather than simply a death of God, a Godlike deadness that yet demands devotion.

Humans evolved into being highly attuned to the animate Earth through a relational and participatory consciousness very different from the divergence brought about with agriculture and civilization. The two million years of foraging through which we evolved were the bodying forth and shaping of animate mind. Figure 1 illustrates my diagram of human development and history as involving a series of contractions from that primal way of consciousness. The outer circle is the animate Earth itself, that living presence dramatically encountered in our co-participation with it, as a source of nutritional, sheltering, and spiritual sustenance. In the next circle in, animate mind is that evolutionary mindset of aboriginal humankind reverentially and practically attuned to circumambient life, attuned to the animate Earth as a great teacher.

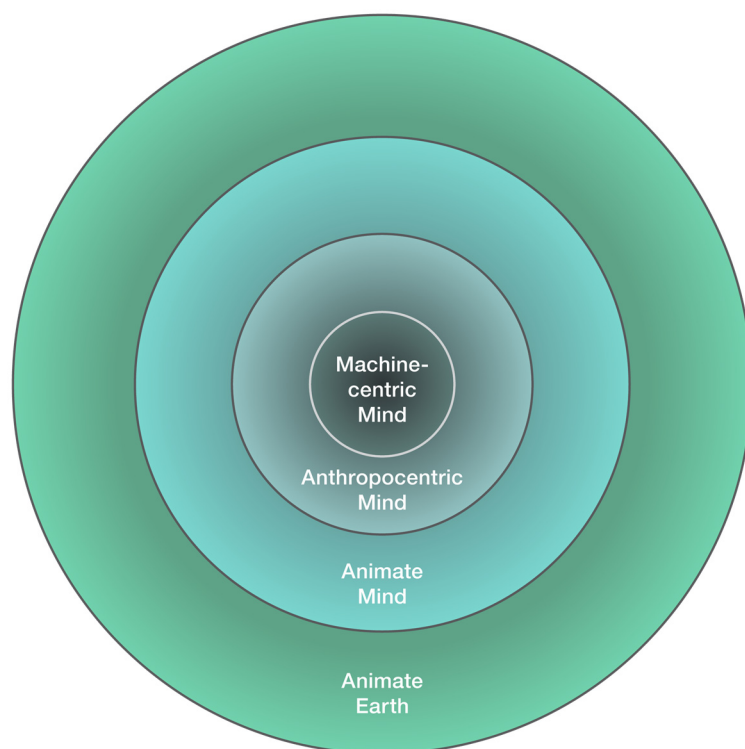


Figure 1. The Contractions of Mind. Source: Author.

With agriculturally based civilization, the human mind contracts to the next circle in, to anthropocentric mind, redefining the world, including the animate Earth and animate mind, through a narrower human-centric filter. In the modern era, stemming originally most directly out of medieval Europe, mind contracts even further to the innermost circle, that of machine-centric mind, wherein the machine is taken as the ultimate metaphor defining existence, providing the objectivist filter through which the world is to be understood and made to fit. The contractions of mind act as filters, filtering away from co-participation with the wild animate Earth, excluding previously significant information. With anthropocentric mind, a humanized world replaces attunement to the animate Earth. As domesticated animals and plants progressively replace wild food, for example, attention shifts toward

the control of concentrated plants and animals, and later, to the life within the city and its spectacles.

The usual story of history is that this represents progress. But consider how the Neolithic revolution and its legacy of civilization literally changed bodies and habitats, often for the worse. The costs included increasing populations and hierarchical inequality, with significantly reduced nutrition for the bulk of people, and significant decreases in stature in the old world as well as the new world [13,14]. Agriculturally based settled societies and civilizations universally diminished human diets on average by narrowing the wide range of foods available to hunter gatherers to one or more primary grains such as wheat, barley, or rice, leading to nutritional deficiencies. Increased inequality in civilizations was also a factor. Agricultural people needed to work much longer hours on average than hunter-gatherers to sustain themselves, and suffered increases in diseases, famines, and distressed landscapes, through deforestation or, in Mesopotamia, salinization due to irrigation (as the ancient Mesopotamian “fertile crescent”, now largely desert, illustrates) [15,16]. As Mummert et al. noted:

The impact of agriculture, accompanied by increasing population density and a rise in infectious disease, was observed to decrease stature in populations from across the entire globe and regardless of the temporal period during which agriculture was adopted, including Europe, Africa, the Middle East, Asia, South America, and North America. [17] (p. 284)

Whatever their variations or deficits, anthropologists agree that foragers maintained fairly sustainable relationships to their habitats, even as agricultural civilizations have tended to devastate habitat, through deforestation, salinization of the land, or other depletion of resources. And those relationships to habitat were key elements of their religious beliefs.

4. Primal Awareness and Animate Mind

Religion runs deep in human nature, far deeper than the confines of human history, literacy, and the advent of civilization. In my view, as I shall lay out, religion coevolved with human nature, from ongoing conversations of nature, visceral conversations both practical and reverential, and deeply rooted in the Earth and in Earth wisdom [18]. Participation in those conversations through close attunement, wherein the wild others were treated as potential teachers, involved learning sophisticated levels of observation and communication. More, it involved a relational consciousness and worldview at odds with that of civilization, not only today, but back even to the beginnings of civilizations. Animate mind is that relational consciousness evolved out of practiced attunement to the animate Earth.

What is usually called animism involves a relational awareness and learning attitude that is participant in the living environment, not merely a magical belief system or an idea of things instilled with spirit from without. Being human means being an organic sign-complex in communicative transaction with one’s surrounds, including the things of one’s surrounds. As I put it in my studies of the meanings of personal possessions in the 1980s, “The person, as a complex of living, feeling, sign-habits, extends into and derives from the spatiotemporal environment through signs” [19] (p. 335) [20] (p. 137) and [21]. As Anthropologist Tim Ingold put it more recently discussing animism, with some similarities to Stuart-Glennie, “things are in life rather than life in things” [22] (p. 29).

A Wemindji Cree man, as reported to ethnographer Colin Scott, defined life as “continuous birth”. This is participation consciousness, immersed in the bodying forth of being. Ingold commented on this definition of continuous birth: “. . . life in the animic ontology is not an emanation but a generation of being, in a world that is not pre-ordained but incipient, forever on the verge of the actual. . . One is continually present as witness to that moment, always moving like the crest of a wave, at which the world is about to disclose itself for what it is” [22] (p. 69).

Religion arose in our evolutionary past primarily as a way to connect to the intelligible and edible habitat, through ritual, dance, song, and foraging arts and sciences such as

tracking. Our bodies walked out of the Pleistocene era as foragers reverentially attuning to the circumambient signs of life, on which we depended for survival. Religion in this sense is spiritual, aesthetic, dramatic, *and* practical, not simply a matter of beliefs. Here the primal morality of religious life is co-participation in and responsibility to the community of life; its ultimate purport the affirming participation in a universe still in active creation.

For many hunter gatherer San peoples in southern Africa that which is revered as gods will vary with changing habitat conditions. Mathias Guenther has characterized their religion as, “deeply and pervasively ambiguous and heterogenous, as fluid and lacking in standardization” [23] (p. 267). Where settled societies typically have settled religions, reflecting the power of state or social structure, the foraging San have, in effect, foraging religious beliefs:

The reason the Bushmen are not perplexed by the ambiguity of their beliefs, nor driven by any ‘need’ to put order into their mythological and cosmological realm, is this prevailing contrapuntal relationship between religion and society. In form and substance their religion defines for them a perception of nature, the cosmos, and divinity that is in concert with a life of nomadism and hunting and gathering, of close attachment to nature, of individualism and equality, of loose social attachment to a small community to whom each is morally tied through bonds of reciprocity, and whose company each seeks in the interest of physical survival and aesthetic gratification. With its qualities of ambiguity and interpersonal and regional diversity that attach to all of its supernatural elements, and its tolerance toward and interests in the beliefs, stories, and songs of others, Bushman belief can be regarded as an ideology consistent with the mobility, openness, fluidity, adaptability, and unpredictability of the foragers’ life. [24] (p. 246)

The San Bushmen’s religious beliefs are of a piece with their social lives, with less hierarchical social organization and greater sense of equality than those of typical civilizational structures. It is a life, as with hunter gatherers more generally, of few wants that could be easily met [25].

One question this outlook raises is what is meant by the concept of God, and whether conceptual intelligence is the proper “center of gravity” for such a question. Again, from Guenther: “It is this ineffable, preverbal, non-semantic quality of religion, utterable only through metaphor, which I hold to be the characteristic expressive and conceptual mode of Bushman religion” [24] (p. 236). That spontaneous expressive intelligence embodying the living habitat relation, the living gesture bodying forth in the signifying moment, also speaks to philosopher and logician Charles Peirce’s conception of abductive inference, and its dark inklings which surface from the deeper portions of brain as informed guesses, then to be subjected to deductive or inductive reasoning. This is particularly clear in Bushman tracking, which is inseparable from Bushman religion.

The science and art of traditional tracking, still practiced by hunter-gatherers in different parts of the world, involves complex inferential logic, nuanced deductive and inductive thinking, as well as intuitive hypothesizing. Yet it is all explicitly about immersion in the tracking, as participant rather than a spectatorial theorizer. Louis Liebenberg, a master tracker and author who has studied and worked with San Bushman trackers, makes this connection explicit:

Apart from information based on direct observations and recognition of signs, speculative tracking also requires the interpretation of signs in terms of creative hypotheses. The modern tracker creates imaginative reconstructions to explain what the animals were doing, and on this basis makes novel predictions in unique circumstances. Speculative tracking involves a continuous process of conjecture and refutation to deal with complex, dynamic, ever changing variables. Modern tracking not only requires inductive-deductive reasoning, but also creative hypothetico-deductive reasoning”. [26] (p. 45)

“Hypothetico-deductive reasoning” is what Peirce meant by abductive reasoning, the logical means by which conjectures, though vague, can act as informed guesses to begin an inquiry. Tracking thus involves the range of abductive, deductive and inductive inferences used in scientific inquiry.

This process of identification, the empathic feeling-oneself-into and participant with the creature one is tracking, helps to both enlarge the information being gathered in tracking, and to connect the tracker to the tracked in a shared sacred game of predator and prey. Tracking is perhaps the original “joyful science” Nietzsche sought.

Tracking alone incorporates roughly 5000 potential signs or “pressure releases” from any given track, forming a whole language in itself. Tracking can give a picture of a creature, including human, with detailed information of internal organs and even blinks of the eyes. The potential 5000 signs that a master tracker can read form a vocabulary almost as large as the numbers of Chinese language characters. It is one whose grammar is that of a micro-landscape, where terrain features are applied to the tiny, subtle indexical indicators gravitized in the track. But they are more than a vocabulary; they iconically and indexically reveal states of body and mind of animals [27].

The Native American expression, “To walk in beauty”, that is, in full awareness conversant with one’s surrounds, conveys the ultimate aim of life as a participation in ongoing creation. We see this religious sensibility in the practice of tracking by Southern African Bushmen, such as !Nqate Xqamxebe, a !Xo San persistence hunter of the Kalahari Desert Bushmen: “When you track an animal—you must become the animal. Tracking is like dancing, because your body is happy—you can feel it in the dance and then you know that the hunting will be good. When you are doing these things you are talking with God” [28].

Tracking is completely immersive, like dancing. And it is a dramatic dialogue, not only with the unseen animal and its gravitized indicators in the tracks, but also a dialogue through which, “you are talking with God”. Such “primitive skills” as tracking, foraging, understanding the radar-like language of birds, reveal skilled and seasoned attunement to learning and to internalizing the articulated “grammars” of nature, and result in practical wisdom generalizable in social life and expressive ritual. They suggest some of the living practices through which symbolic thought and human brains originally emerged, as well as sources for religion and that loving pursuit of wisdom that is philosophy. They imbibe the spirit of ecological mind, “spoken” in a conversation of gestures, “heard” as significant symbols: gestural signs of animals and tracks, signs given by plants and habitat, signs also comprehended through ecstatic visions, dance, song, and ritualized religious practices rather than in rational words. This sense of religion as visceral, relational experience, rooted in the ongoing practical and reverential attunement to the living moment, conveys the primal consciousness of animate mind and its sustainable wisdom.

5. Civilization and Anthropocentric Mind

With agriculture and civilization, animate mind began its contraction as the human ego broke its moorings to the tempered, extra-rational forms of reasonableness which reached back inwardly through our evolutionary hunter-gatherer past to our primate and mammalian bodies, and reached outward to all-surrounding life. Anthropocentric mind began to see the world as a mirror of human society instead of humans as fellow inhabitants of the greater community of life on Earth. Attention shifted from the greater-than-human world to the great-human-world, to the all-too-human mindset, whose powers of organized city-states would dominate nature.

As cities and eventually states developed over thousands of years, new forms of social organization and institutions developed, as well as concentrated wealth and poverty, paradisiacal enclaves for the king and court, and greater inequality. There are variations too, especially in earlier cities, such as the very early fourth millennium BCE Trypillia megasites in Ukraine, and exceptions too, such as in Southern Mesopotamia in contrast to Northern Mesopotamia. Graeber and Wengrow addressed the limits of some deterministic

models claiming technological innovation or scale of social organization alone necessitate centralized hierarchy in the development of cities. Yet they do not adequately address reasons why over time hierarchical civilizations successfully predominated [29] (p. 289). Civilizing humans achieved progress in precision, in farming and animal husbandry, in city building, architecture, and early sciences, in bureaucratic organization of military, laboring, and scribal institutions, even as direct attunement to the animate Earth receded.

These new social hierarchies—the invention of kingship, of standing military armies, of bureaucracies and scribes, brought about with cities, helped to create a centralized and regimented power complex, one that Lewis Mumford termed the *megamachine*. He claimed that the rational, bureaucratizing dynamics of early civilization, and especially religious legitimation through the new institution of kingship, marked a new kind of mythos, the myth of the machine [30]. The city became microcosmos, a mirroring of the regular order of the cosmos in built form. Yet it was a projective mirror as well as a reflective mirror. For even as the stars were observed and studied in the emergence of scientific astronomy, opening up more precise understanding of the heavens, the wild Earth became diminished in significance, as though excluded by the city walls, a place of “uncivilized” barbarians. The cosmos itself became civilized with the projected community of gods mirroring the dynamics of the city, including agriculture, in myth and in the personified stars of the heavens. Early civilizations marked a “development of homely supernal, into stately supernatural, beings, worshipped in elaborate and grandly spectacular rites”, as Stuart-Glennie noted [31] (p. 261).

The development of divine and sacred kingship, where a sacralized human becomes a focal point connecting the state to divinity, marks a decisive step toward anthropocentric mind. The city becomes the sanctified *axis mundi*, and wild habitat becomes desacralized and devalued. The institution of kingship in early hierarchical civilizations held an aura of the sacred, as both a portal to the divine and an empowerment and legitimation of the seemingly more than human regime. It celebrated the unbridled power to dominate as a central virtue of civilized life, as the Sumerian epic of Gilgamesh illustrates. State religions centered on king and the hierarchy of personified power gods predominated, whereas the wild Earth progressively receded. Heroic endeavor served the powers that be, not the inner person. Sometime around 2500 years ago, profound changes began to surface, which would radically reshape the world in ways that even reach down to the present.

6. The Axial Revolution

What Jaspers termed *the axial age* in 1949, and 75 years earlier Stuart-Glennie, whose forgotten work I have uncovered, termed *the moral revolution*, began surfacing roughly some 2500 years ago as a kind of counter-culture to prevailing power centers across civilizations [32]. These terms denote that pivotal period of some few hundred years, centered around 600–500 BCE, in which there were significant commonalities in the new ideas erupting across different civilizations, most notably ancient China, India, Israel, and Greece.

Though 600–500 BCE is a rough marker for the main emergence of these movements, some arose later, such as Christianity and Islam. In addition, the influence of these movements is found more in their development, transformations, and consequences than in their origins. The philosophers, teachers, prophets and sages often had little initial impact on their societies. It was an era that brought forth democracy as well as world empires. A new emphasis on the inner person and reflective mind emerged, as well as the development of major world religions rooted in ideals of transcendence. This revolutionary period, spanning some hundreds of years, brought forth religions such as Buddhism and the religions of the book—Judaism and its offshoots of Christianity and Islam—which continue to have a major presence today. Reflective, or “second order” thought—thinking about thinking—became more prominent, providing critique of the existing order. In historian Arnaldo Momigliano’s words, “We are in the age of criticism” [33] (pp. 8–9).

Stuart-Glennie provided a context for this pivotal change in 1876, noting, “The Civilizations prior to the Sixth Century B.C. were chiefly determined by the Powers and Aspects

of Nature, and those posterior thereto by the Activities and Myths of Mind" [34] (p. 479). The triumph of greater reflectiveness brought obvious benefits to the development of the natural sciences, and also to the figures of the moral revolution, the "renouncers". Yet it also came at the cost of perceptive learning relationships with the living habitat as a centerpiece of religion. This was less so in religions of the Far East such as Daoism or Buddhism, but was especially manifest in the West, which I will concentrate on. The Daoist greater affirmation of nature, for example, suggests the possibility that Daoism might express a direct continuity reaching back to pre-civilizational folk sources, rather than simply being a novel axial movement.

With the Moral Revolution/Axial Age also comes the possibility of transcendence of the world per se, whether in Buddhist Nirvana, or in religions of the Abrahamic tradition. As Robert Bellah said of ancient Judaism, "A God who is finally outside of society and the world provides the point of reference from which all existing presuppositions can be questioned, a basic criterion for the axial transition" [35]. The turn toward monotheism in the Abrahamic religions marked a further divestment of divinity and sacredness from wild nature that would be key in the development of Western civilization all the way into the modern era. In Genesis 1.28, God calls for humankind to subdue the Earth, and have dominion over its creatures: "And God blessed them, and God said unto them, Be fruitful, and multiply, and replenish the earth, and subdue it: and have dominion over the fish of the sea, and over the fowl of the air, and over every living thing that moveth upon the earth" (King James Version). The Hebrew word for subdue is *kabash*, meaning to subjugate, as one would do to an enemy. In contemporary slang, it is "to put the kabash on it". And as Henri Frankfort wrote: "The Hebrew prophets rejected both the Egyptian and the Babylonian views. They insisted on the uniqueness and transcendence of God. For them all values were ultimately attributes of God; man and nature were devaluated, and every attempt to establish a harmony with nature was a futile dissipation of effort" [36] (p. 6).

Seeking harmony with nature as a futile dissipation of effort: such were the beliefs that entered into the prejudices against the earlier religions rooted in the wild habitat and later polytheistic religions. Religion became, less so in the East but especially so in the West, dissociated from the long evolutionary legacy of the creating cosmos, a key idea of animate mind. The limited human mind, now anthropocentrically fixed on its concept of the ultimate as a transcendent mind quality, seeks to control nature toward human purposes, especially in the western variants of the religions of the book, but also in Greek science. Even though the traditions stemming from ancient Greek science took nature as a source of learning, knowledge (or *epistêmê*) eventually gave way to technique (*technê*) in the rise of modern science and technology. To control the cosmos, through supernatural religious mind or technical knowledge, as though the cosmos could be reduced to mind, is the drama that took root some 2500 years ago.

The many writers who have celebrated the axial age as a progressive triumph of a "theoretic attitude" in religion, such as Jaspers, or more recently, Bellah, have in my opinion overidealized cognitive mind and undervalued passional mind as a basis for practical life as well as religion. That outlook has also prevented them from fully appreciating the place of perceptive relations to wild habitat as the chief source of physical and spiritual sustenance in the course of evolution, the means, through our close attunement to its varieties of life, of developmental passage to maturity and sustainable wisdom.

The desacralization of the wild habitat in the heightening of anthropocentric mind involved the loss of those perceptive relations. Thus, in the religions of the book, locations revered for spiritual significance are those associated with human prophets, sages, saviors, or sacred texts. As author Daniel Quinn put it in an interview:

Christianity... sees the world as just a neutral place, or actually if you read St. John, for example, as an evil place. But at best a neutral place, where people live being tested for their true home, which is heaven... In the Christian view not only is the world a neutral place, if it was a sacred place humans would not be fit for it. Humans are fallen, are sinners. And of course, that's not a view any

aboriginal people have. They don't see people as sinners or fallen or anything like that. They see humans as no different from anything else that lives, which is why they respect anything else that lives, they live in a respectful way in respect to the animals they live on. [37]

The idea of religion as involving ongoing attunement to nature, to the Earth, suggests possibilities for what sustainable religion would involve. Daoism, for example, was one expression of the moral revolution which yet retained a spiritual place for the wild others and their informing properties in worldview, a stark contrast to the Abrahamic religions that arose in the West. Religion as involving ongoing attunement to nature also suggests that the Abrahamic religions, far from being in opposition to evolution, could be enhanced by practices wherein, for example, custom meets climate in dialogue, revising as needed. For example, the 2015 Papal Encyclical by Pope Francis, *Laudato Si*, makes a claim for a moral and spiritual responsibility to "Care for Our Common Home", the Earth [38]. Further, religion as involving ongoing attunement to nature suggests that a sustainable religion would be one that must evolve.

The axial ideal of transcendence connects to a larger ideal, manifest not only in the legacies of the world religions but also in modern science and technology, that ideal wherein unlimited progress would bring about the transcendence of nature. A less rosy description of such modes of transcendence is that they have masked a philosophy of escape from the Earth. As I shall discuss below, a strange meeting of the religious and technological ideals of transcendence helped inaugurate a further contraction of mind in the West, one dominant globally today, that of machine-centric mind.

7. Machine-Centric Mind: The Protestant Ethic and the Spirit of the Machine

When Nietzsche proclaimed that God is dead, it was not as if there was a vacuum of divinity. Already a new God had been born, a God instrumental in the killing of the Christian God. Indeed, it was a God in many ways summoned forth by Christian prayer.

In some Northern European Benedictine monastery late in the 13th century there was a kind of miraculous birth, one that would transform the world: the mechanical clock. Beginning as an aid to rationally ordering the seven daily prayer times in the monastery, it later diffused into towns and workplaces, and its gears inspired new machinery and conditions for work. From marking prayer time in the monastery, it expanded to become the ubiquitous regulator of time, work discipline, and capitalism, and master symbol of the universe itself. And thus, out of the clock and all that it represented was the new God born. *Deus ex Machina*, the God out of the Machine, was not simply a clock, but a clockwork world, a clockwork universe, a machine-centric mind [39]³.

By the fourteenth century, Nicole Oresme stated that God created the heavens so tempered and harmonious, that "the situation is much like a man making a clock and letting it run and continue its own motion by itself" [40] (p. 83). By the seventeenth century, the universe itself became redefined as a vast clockwork. Kepler, best known for his laws of planetary motion, stated it explicitly in 1605: "My aim is to show that the heavenly machine is not a kind of divine, live being, but a kind of clockwork" [41] (p. 331).

The technical invention of the clock was important, but it only marked the beginnings of its significance. As Mumford noted,

The clock is not merely a means of keeping track of hours, but of synchronizing the actions of men. . . The clock, not the steam engine, is the key machine of the modern industrial age. [42] (pp. 14–15)

Not only the clockwork, but the culture of the clock grew to truly Gargantuan proportions, redefining human life as well as cosmos. Behind the factory assembly line is the clock. Behind the computer and your cell phone is the clock. Behind the cornucopia of commodities delivered to your doorstep are vast networks of workers on the clock. From its humble beginnings in the late thirteenth century, the clock became a dominant symbol in Western consciousness, transforming and rationalizing daily life, work discipline,

and the very conceptions of time and space [43]. With machine-centric mind, attention progressively shifts toward ever more powerful machines and machine-influenced habits and beliefs that can more radically reshape humans and the Earth.

In his book, *The Protestant Ethic and the Spirit of Capitalism*, Max Weber claimed that the rationalist ethic of Protestantism acted as a motive force that fostered the emergence and ascendancy of the modern spirit of capitalism. His thesis presents an interesting parallel to the clock for how modern ideas could emerge in religious contexts. He noted how through the Reformation the “other-worldly” ascetic rationalism characteristic of the monastery and its virtuoso monks was generalized to the world, to a “this-worldly” rationalistic ethics, so that, in effect, everyone needed to become an ascetic virtuoso:

The other-worldly asceticism came to an end. . . Thus Sebastian Franck was correct in summing up the spirit of the Reformation in the words, ‘you think you have escaped from the monastery, but everyone must now be a monk throughout his life’. [44] (p. 366)

Weber acknowledged the significance of rational technology, economics, and law in the establishment of modern capitalism, yet he seems to have missed how the rational restructuring of reality already began before the Reformation through the dispersion of the mechanical clock. Taking off from Sebastian Franck’s metaphor of escaping the monastery, one could also say that the emergent modern rational order first “escaped from the monastery” literally in the spread of the clock tower and its “escapement” mechanism to towns and cities, and later, to homes and wearable watches. As the clock and clock culture spread, one can say that rational order also “escaped” the monastery, *machina mundi* going forth to regularize and rationalize the everyday world. Clock culture generalized beyond mechanisms to order the workday by abstract quantitative time rather than task, and provided the model for gear-work machinery and assembly line work.

Weber made a compelling case for how the Reformation, especially Calvinism, promoted an attitude of ascetic rationalism that both legitimized the emergence of rational capitalism, and reversed medieval criticisms of unbounded profit making. In addition, it released a rationalizing spirit, “the spirit of capitalism”, that cut loose from its religious origins as it became institutionalized as a basis for economy. The new emphasis on a rational basis for connection of religious life to “Earthly action”, methodically reorganized practical life to:

. . . saturate mundane, *everyday* life with its methodicalness. In the process, it sought to reorganize practical life into a rational life *in* the world rather than, as earlier, in the monastery. Yet this rational life in the world was *not of* this world or *for* this world. [45] (p. 157)

“This-worldly” asceticism guided by “other-worldly” purposes marks a radically new heightening of the reflective outlook and ideal of transcendence that were characteristics of the axial age/moral revolution. Ironically, this-worldly asceticism, rooted in “Earthly action”, is fully disconnected from the animate Earth, living solely for other-worldly salvation, for escape from the Earth. It is almost as if Galileo’s phrase, “if the living creature were removed” from the equation, was transposed to a theological dogma and ideal, leaving the methodical rational system as the idealized replacement.

Ascetic rationalism was part of a broader machine-centric outlook that initially arose in the West and created a radical divide between body and mind. In its Calvinist and Puritan manifestations, it devalued the body and emotions, and idealized a conception of predestination; wherein the salvation or damnation of every life had been divinely foreordained, like. . . clockwork. As Weber put it: “Its melancholy inhumanity must have had one result above all: a feeling of unimaginable *inner loneliness of the solitary individual* . . . And no one could help them” [45] (p. 119). This “feeling of unimaginable *inner loneliness of the solitary individual*” marks a radical break from the whole range of traditions rooted in religion as a fundamental basis and expressive vehicle of social connection.

In addition to spiritual isolation, denigration of the body, passions, and feelings, the new ethic and mindset of disenchantment brought about through the Reformation brought a heightened significance to rationalization, intellectualization, and mastery through calculation:

It means that... one can, in principle, master all things by calculation. This means that the world is disenchanted... The fate of our times is characterized by rationalization and intellectualization and, above all, by the 'disenchantment of the world'. [46] (pp. 139, 155)

This new calculative outlook provided a means to cope with a disenchanted world, especially through methodical work. From another perspective, the Protestant ethic also illustrated how literal clockwork culture could be imbued with religious values, legitimizing harsh factory labor and capitalist profit derived from it.

As capitalism became institutionalized, it no longer needed its religious-ethical legitimation. It no longer needed God. Moreover, the concern with material goods, rather than being a lightweight coat that could be thrown off at any time, became an enveloping means of confinement, in Weber's words, a systemic steel-hard casing.

Weber's insights on the disenchantment of the world are compelling. And yet, there is simultaneously a Mephistopheles-like process at work as well, puritanically assimilating machine properties to ascetic spiritual virtues, while dissociating human needs and passions to fleshly vices. It is both the rational disenchantment, as well as a seemingly cloaked enchantment with the machine, the crypto-religious enchantment of *deus ex machina*. And as the rationalizing and bureaucratizing tendencies of industrial capitalism that Weber described forged the "steel-hard casing" of materialism, no longer needing asceticism, the system found means to project hedonistic desire through consumption, advertising an ever-increasing world of goods.

In the conclusion to *The Protestant Ethic and the Spirit of Capitalism*, Weber speculates on whether this rationally encased age could give way to "new prophets", and if not, whether it will terminate in a "mechanized ossification". Such an ossified culture would be so framed by the impersonal order of bureaucracy that its "last humans", invoking Nietzsche, would be in Weber's words, "specialists without minds, pleasure seekers without heart" [45] (p. 178). His observation applied to bureaucratic capitalism as well as the bureaucratic communism yet to emerge.

The great development of rational asceticism, seeking spiritual virtue, culminates in a bifurcated world of spiritless specialists and heartless hedonists, unbounded and dehumanized. Weber describes the true nature of the bureaucratized mass culture human automaton, cloaked in seeming know-how and fleshly desire. Reduced to its essentials, the nominalist mind-body dualism appears as mindless calculation and unfeeling sensation.

If the clock manifests the body of the machine-centric attitude, one might say that philosophical nominalism, which arose at the same time, the *via moderna* as it was called, manifests the mind. In its classic form, nominalism stunts the full interactive realities of nature and sociality that science investigates. Nominalism influenced many of the key philosophers and scientists in the emergence of the modern mind, as well as religious leaders of the Reformation. And it permeates the modern worldview and everyday life more generally, the very "flesh and blood of the average modern mind" as Peirce put it, [47] (p. 157) as what I have termed *cultural nominalism* [20].

Nominalism proposed a divided view, of reality on the one side consisting of isolate particulars devoid of general relations, versus general relations and universality on the other as no more than nominal conventions, not real per se. It disallows the interactive realities of nature and human sociality, not to mention the natural basis of sociality more generally. A nominalist philosopher such as David Hume held that laws of nature are simply the habits of expectation we develop for similarities between phenomena, habits that are nevertheless subjective. Peirce countered that such a view cannot adequately explain, "why *future* phenomena conform to a law", but that the realist view that some general properties determine phenomena can. Peirce's alternative is that a law of nature

is “a prognostic generalization of observations”, whose scientific objectivity is found in continued inquiry [47] (pp. 68, 69).

In other words, the reality of laws of nature is in general properties, not reducible to individual observations in isolation. Further, Peirce claimed that the human capacity to make a “prognostic generalization of observations”, that can prove fallibly true suggests, “. . .there is an energizing reasonableness that shapes phenomena in some sense, and that this same working reasonableness has moulded the reason of man” to resemble it, however partially and fallibly [47] (p. 68). Humans are capable of insight into nature, in the sense of making greater than chance abductive inferences to form hypotheses, because human reason evolved from its general properties.

Despite the vast achievements and transformations of the Earth brought about by science and technology, Peirce claimed that the “scientific realist” framework in which science emerged harbors illogical nominalist assumptions ultimately at odds with realism and with the continued development of science. He challenged science in 1901 to come to terms with a more comprehensive living universe, alive and evolving in still active creation: “Every evolutionism must in its evolution eventually restore that rejected idea of law as a reasonableness energizing in the world . . .” [47] (p. 72). Peirce’s scientific evolutionary realism resonates with what Hamlet put to Horatio in religious terms: “There’s a divinity that shapes our ends, Rough-hew them how we will”.

Between the nominalist clockwork universe of scientific objectivism and religiously legitimated rational disenchantment, the reflective ideals of the axial age/moral revolution, far from being perfected, are undone. In the legacy of the axial age in the West, the rise of Christianity out of Greco-Judean cultures originally brought with it an inherent split between the naturalism of Greek philosophy and science on the one side and the transcendental ideals of Judaism on the other. This became the split between religion and science in the development of the modern era.

And yet, as can be seen both in the nominalist objectivism of Galileo and others in the institutionalizing of science, and in technoscience more broadly, and, on the other side, in the working out of this-worldly rational asceticism through the Reformation, the two seemingly disparate sides yet managed to bring forth and set free a coherent and now global machine-centric worldview, in effect, “killing” God in the process.

That process of rational disenchantment in science, technology, and religion was all accompanied by the irrational enchantment with *machina mundi*, unwittingly worshipping the veiled god out of the machine, the deadness of automatism. Yet technology is a means, not an end and not a god, requiring being bounded toward broader human purposes, and those human purposes in turn being bounded by yet broader and sustaining ecological requirements.

The repressive denial of the body, of sensuality, of feelings, of ritual, of non-useful play, of spiritual significance for outward nature as well as inward nature, represents a complete departure from human Earthiness as well as the Earth. It is the drama of *machina mundi* fleshing itself out in a progress of precision counteracted by a regressive contraction of mind that is now global civilization. It is the drama of *machina mundi* displacing, with a suicidal goal of ultimately supplanting, animate Earth.

8. Noösphere and Necrophilia

The noösphere was the conception of an encircling planetary human intelligence representing a summit of evolution originally developed by Edouard Le Roy, Vladimir Vernadsky, and Pierre Teilhard de Chardin in the early 1920s. But it is particularly associated with Teilhard de Chardin through his book, *The Phenomenon of Man*. Teilhard proposed the noösphere as an emergent human addition to the planetary layers such as the lithosphere, hydrosphere, atmosphere, and biosphere. As Teilhard put it in an essay in 1923: “And this amounts to imagining, in one way or another, above the animal biosphere a human sphere, a sphere of reflection, of conscious invention, of conscious souls (the noösphere, if you will)” [48] (p. 63). It evolves and eventually converges at an “omega point”.

Given the tendency by evolutionary thinkers toward biological reductionism, even today Teilhard's noosphere seems a broadening idea at first glance. It perhaps echoes in futurist Ray Kurzweil's prediction of AI attaining "the singularity" in the next 20 years, allowing humans to transcend bodies and brains, or in billionaire Jeff Bezos's proposals for millions of artificial rotating planetary space colonies, with gravity and total climate control. It provides another way to think about the Anthropocene.

Teilhard thought that the liberation of rational mind would free the body and soul as well, producing a universal, nature-mastering intelligence in harmony with Christian ideals:

"Unification, technification, growing rationalization of the human Earth. . . in the simultaneous rise of Society, the Machine and Thought, this threefold tide that is bearing us upward. . . we must recognize it as a force of liberation". [49] (p. 227)

But reasonableness is far more than a happy spiraling progress of techno-rational mind culminating in an idealized "omega point". Now, over a hundred years later, that planetary film of intelligence is literally up and running, in everything from communication systems to global commerce, transportation, and atmospheric carbon emissions. But the vast, digital virtual universe and artificial intelligence being assembled seems not to have the Christian God as its telos, but rather *deus ex machina*.

Machine-centric mind reveals its goal as the unlimited perfection of the rational machine, a perfection that is yet supposed to be redemptive of humanity. It promises the technological solution, to save, salve, and solve all of life's problems. But the displacement of life by the seemingly unbounded machine mythos, under the crypto-religious spell of *deus ex machina*, represents a kind of goal to eradicate fully incarnate human being and the variegated Earth. And it amounts to the ultimate escape from the Earth, whether outwardly or inwardly. Such an outlook need not bind the sciences and technology anymore. Science is a living pursuit, not an inert machine or logic matrix.

As cosmologist Andrew Pontzen put it, "galaxies are less like machines, and more like animals—loosely understandable, rewarding to study, but only partially predictable" [50]. His remarks illustrate how fuller conceptualization of the sciences and technology have already been emerging for some time. Claims that the whole universe works by "a small number of rigid physical laws", in Pontzen's words, also disregarded the element of spontaneity in the diversity of living nature, "the character of not resulting by law from something antecedent". Such diversity, which Peirce termed variegance, shows a presence of spontaneity in life not governed completely by immutable machine-like law, and the limits of the machine or omega point metaphors. Unlimited technical expansion means the progressive colonization of humanity and the biosphere by machine-oriented or obsessed purposes. This ideology is not only equivalent to unsustainability, but has been described by Erich Fromm as *necrophilia*, the love of deadness and the mechanical:

People look for pleasure and excitement, instead of joy; for power and property, instead of growth. They want to *have* much, and *use* much, instead of *being* much. They are more attracted to *the dead and the mechanical* than to life and living processes. I have called this attraction to that which is not alive. . . 'necrophilia,' and the attraction to all that is alive, 'biophilia'". In spite of all the emphasis on pleasure, our society produces more and more necrophilia and less and less love of life. [51] (p. 40)

And elsewhere:

Necrophilia in the characterological sense can be described as . . . the passion to transform that which is alive into something unalive; to destroy for the sake of destruction; the exclusive interest in all that is purely mechanical. [52] (p. 332)

Fromm was drawing attention to the ways in which humans can foreclose on capacities for self-originated experience, as well as capacities for spontaneous experience.

Necrophilia is an apt description of technophilia, of automatism, of the crypto-religion of *deus ex machina*, destined to defile divinity. By contrast with necrophilia, Fromm proposed

biophilia, literally the “passionate love of life and of all that is alive”, as a healthy human psychological disposition:

Biophilia is the passionate love of life and of all that is alive; it is the wish to further growth, whether in a person, a plant, an idea, or a social group. The biophilous person prefers to construct rather than to retain. He is capable of wondering, and he prefers to see something new rather than to find confirmation of the old. He loves the adventure of living more than he does certainty. He sees the whole rather than only the parts, structures rather than summations. He wants to mold and to influence by love, reason, and example; not by force, by cutting things apart, by the bureaucratic manner of administering people as if they were things. [52] (pp. 365, 366)⁴

Fromm’s description of biophilia as a healthy attitude for contemporary life is also virtually a description of animate mind, as the mindset devoted and attuned to the livingness of things, in love with the animate Earth.

9. Conclusions: From Machina Mundi to Corpus Mundi

Modern civilization has continued the early civilizational dream of “paradise” through the idea of progress, invoking science and technology as means to assure total control over nature. But this dream has, from its inception, come at great, though often unacknowledged, costs. Far from transcending the laws of evolution and nature, we have always been, and remain, subject to them. Far from controlling nature, humans have been consuming it in an unsustainable Malthusian-like trajectory, the limits of which are being breached in our time with proliferating direct and indirect consequences.

The modern era progressively contracted consciousness to the drama of the clockwork universe we ourselves have created, based on variations of the belief that nature can be completely defined by and encompassed as a clockwork universe. Previously we took the “walled enclosure” of the city, the literal meaning of the term *paradise*, to distance and encapsulate ourselves from the wild as something less than human and from the humans who lived in those hinterlands as “barbarians”. And from the literal meaning of paradise as walled enclosure, civilized religious conceptions of “paradise” grew and furthered the development of anthropocentric mind. For all of the genuine progress involved in these historical developments, they came at the cost of the diminution and ultimately forgetting of the wild Earth as the touchstone to sustainable living and sustainable wisdom.

There yet remains a way out of the booby trap we have fashioned for the forgotten Earth and ourselves: the key is the human body-mind, whose tempered resources reach far deeper than the 6000-year veneer of civilization. The human body-mind, as it evolved, remains a crucial indicator for what optimal development, socialization, and bounded and sustainable belief might be today.

Rather than discarding these later contractions of anthropocentric and machine-centric mind, I am proposing rebalancing them with that deeper reality of mind forged as the human evolutionary legacy, inclusive of animate mind and the animate Earth. Of relevance here is Fromm’s idea of *biophilia*. Acknowledging loving life today as part not only of the human legacy but of the broader community of life, allows and celebrates our place as Earthlings, as children of the Earth, not simply sophisticated robots or computers.

As Earthlings, as neotenous primates, we are possessed of a wide range of long-term evolutionary relational capacities. And given human plasticity the range of human vices, such as greed, rage, or the necrophilia attitude Fromm described, all can also be cultivated. Yet tempered into the human body-mind, though requiring appropriate socialization and cultivation, are capacities for empathic relation in communication, in listening, speaking and gesturing, for the “soft virtues” such as decency, civility, and integrity, trust, courage, and forgiveness; for self-direction, self-criticism, and self-correction, both individually and institutionally. We hold within these organically tempered bodies, means to offset both the feelingless machine complex as well as the anthropocentric attitude of unlimited wants that initially arose with civilization [54].

More, we ourselves are literally embodiments of the *corpus mundi*, the body of the Earth. In remembering the forgotten Earth within us and in the biosphere without, humanity can acknowledge our dependence on the living Earth and the need for a renewal of *sustainable wisdom*, involving self-controlling, sustainable limits to global civilization at all levels of beliefs, personal, institutional and epochal, toward the purpose of a sustainable, proliferating planet of life.

Regardless of whether humanity can bring about the rebalancing to sustainable wisdom in time before the clock of unsustainability runs out, the Earth will rebalance. That which is sustainable will sustain. That which is not will die. And the clock seems to be ticking ever faster.

The creating cosmos is neither a fixed transcendent God concept nor life-transcending Nirvana, nor inscribed sacred history, but the living spontaneity of psycho-spiritual-physical ongoing creation. It is a drama into which humans are already bodily immersed constitutionally and developmentally, and also, in sustainable cultures, enter into culturally. It is a drama of immersion in the forever renewing rhythms of life and death, not a flight from them. It is a drama of passionate and practiced attunement to that which sustains, ranging from parenting practices, to the legacy of permaculture agricultural traditions—what biologist Robin Wall Kimmerer calls “the honorable harvest”—for optimal diet practices today, to family, community, and institutional relations, inclusive of our relations to the greater community of life and its flourishing. It is something good to live with in the long run, as both a sustaining and sustainable source of wisdom.

If divinity be described in this sense, as what some native American cultures call “the great Mystery”, or “the spirit-that-moves-in-and-through all things”, it may have a quality of transcendence, however that be defined, but is to be found through Earthy relations, not through religious or technoscientific escapes from the animate Earth. Not through idealized love, but Earthy biophilia, the passionate love of the livingness of oneself and others, of “all that is alive”, and of the desire for that which is loved to prosper and flourish and evolve. It is a religious belief alive in the wonder, and in the risk and adventure of itself evolving.

Funding: This research received no external funding.

Institutional Review Board Statement: Not applicable.

Informed Consent Statement: Not applicable.

Data Availability Statement: No new data were created or analyzed in this study. Data sharing is not applicable to this article.

Conflicts of Interest: The author declares no conflict of interest.

Notes

- ¹ Reasonableness involves orders of intelligence older, deeper and more mature than human rationality, of instinctive, emotional, dreaming, and spontaneous forms of reasonableness tempered into the human primate and mammalian body and sprung from the biosphere in which we evolved. Rationality, as what philosopher Charles Peirce described as an unmaturing portion of mind, requires the community of passions from the older portions of the human brain-mind for its optimal functioning, not a maximizing domination of them, as modern rationalization would have it. And the community of passions are themselves not simply automatic functions, but are practices requiring cultivation.
- ² As I put it elsewhere, “Humankind, the greatest killer of the biosphere, is itself an endangered species, endangered not only by the outer consequences of global Power culture on the life of the earth, but also by its ‘deforestation’ of its inner life. We are the legacy of Gilgamesh, who would ‘ascend to the heavens’ through power, who would ‘cut down the Cedar,’ who would defy and defame the gods, who would ‘establish fame for eternity,’ who would nevertheless die. For the first time since civilizational being developed, we have reached the limits of civilization, globally. That is why we need to conceive a new civilizational structure that can, for the first time, incorporate limits in alignment with nature globally” [2] (p. 73).
- ³ The mechanical clocks of the Benedictine monasteries were by no means the earliest. A long tradition of mechanical devices tracing back to Greek and Roman times reveals a dual interest in time reckoning and automata rendering.
- ⁴ Biologist E.O. Wilson later re-coined the term biophilia and popularized it [53].

References

- Nietzsche, F. *The Gay Science*; Kaufmann, W., Translator; Vintage Books: New York, NY, USA, 1974.
- Halton, E. The Cosmic Fantasia of Life. In *Mythen der Kreativität: Das Schöpferische zwischen Innovation und Hybris*; Hg. von Deschner, A., Krüger, O., Sariönder, R., Eds.; Verlag Otto Lembeck: Frankfurt-am-Main, Germany, 2003; pp. 51–76.
- Merchant, C. *The Death of Nature: Women, Ecology, and the Scientific Revolution*; Harper: San Francisco, CA, USA, 1983.
- Halton, E. Planet of the Degenerate Monkeys. In *Planet of the Apes and Philosophy*; Huss, J., Ed.; Open Court Press: Chicago, IL, USA, 2013; pp. 279–292.
- Halton, E. Indigenous Bodies, Civilized Selves, and the Escape from the Earth. In *Indigenous Sustainable Wisdom: First-Nation Know-How for Global Flourishing*; Narvaez, D., Arrows, F., Halton, E., Collier, B., Enderle, G., Eds.; Peter Lang Publishing: New York, NY, USA, 2019; pp. 47–73.
- Halton, E. The Forgotten Earth: World Religions and Worldlessness in the Legacy of the Axial Age/Moral Revolution. In *From World Religions to Axial Civilizations and Beyond*; Arjomand, S., Kalberg, S., Eds.; State University of New York Press: Albany, NY, USA, 2021; pp. 209–238.
- Malloch, S.; Trevarthen, C. *Communicative Musicality: Exploring the Basis of Human Companionship*; Oxford University Press: New York, NY, USA, 2009.
- Fuentes, A. *Why We Believe: Evolution and the Human Way of Being*; Yale University Press: New Haven, CT, USA, 2019.
- Maguire, E.A.; Gadian, D.G.; Johnsrude, I.S.; Good, C.D.; Ashburner, J.; Frackowiak, R.S.J.; Frith, C.D. Navigation-related structural change in the hippocampi of taxi drivers. *Proc. Natl. Acad. Sci. USA* **2000**, *97*, 4398–4403. [[CrossRef](#)] [[PubMed](#)]
- Bowlby, J. *Attachment and Loss*; Volume 1: Attachment; Basic Books: New York, NY, USA, 1969.
- Halton, E. Peircean Animism and the End of Civilization. *Contemporary Pragmatism*. **2005**, *2*, 135–166. [[CrossRef](#)]
- Halton, E. Eden Inverted: On the Wild Self and the Contraction of Consciousness. *Trumpeter* **2007**, *23*, 45–77.
- Angel, L.J. Health as a Crucial Factor in the Changes from Hunting to Developed Farming in the Eastern Mediterranean. In *Paleopathology at the Origins of Agriculture*; Cohen, M.N., Armelagos, G.J., Eds.; Academic Press: New York, NY, USA, 1984; pp. 51–73.
- Hermanussen, M. Stature of Early Europeans. *Hormones* **2003**, *2*, 175–178. [[CrossRef](#)] [[PubMed](#)]
- Eaton, S.B.; Shostack, M.; Konner, M. *The Paleolithic Prescription: A Program of Diet and Exercise and a Design for Living*; Harper & Row: New York, NY, USA, 1988.
- Lee, R.; DeVore, I. *Man the Hunter*; Aldine: Chicago, IL, USA, 1968.
- Mummert, A.; Esche, E.; Robinson, J.; Armelagos, G.J. Stature and robusticity during the agricultural transition: Evidence from the bioarchaeological record. *Econ. Hum. Biol.* **2011**, *9*, 284–301. [[CrossRef](#)] [[PubMed](#)]
- Halton, E. From the Emergent Drama of Interpretation to Enscreenment. In *Ancestral Landscapes in Human Evolution: Culture, Childrearing and Social Wellbeing*; Narvaez, D., Valentino, K., Fuentes, A., McKenna, J., Gray, P., Eds.; Oxford University Press: Oxford, UK, 2014; pp. 307–330.
- Rochberg-Halton, E. Object Relations, Role Models, and Cultivation of the Self. *Environ. Behavior*. **1984**, *16*, 335–368. [[CrossRef](#)]
- Rochberg-Halton, E. *Meaning and Modernity*; University of Chicago Press: Chicago, IL, USA, 1986.
- Csikszentmihalyi, M.; Rochberg-Halton, E. *The Meaning of Things*; Cambridge University Press: New York, NY, USA, 1981.
- Ingold, T. *Being Alive: Essays on Movement, Knowledge and Description*; Routledge: New York, NY, USA, 2011.
- Guenther, M. The relationship of Bushman Art to Ritual and Folklore. In *Contested Images: Diversity in Southern African Rock Art Research*; Dowson, T., Lewis-Williams, J.D., Eds.; Witwatersrand University Press: Johannesburg, South Africa, 1994; pp. 257–275.
- Guenther, M. *Tricksters and Trancers: Bushman Religion and Society*; Indiana University Press: Bloomington, IN, USA, 1999.
- Sahlins, M. *Stone-Age Economics*; Aldine: Chicago, IL, USA, 1973.
- Steyn, H.P.; Liebenberg, L. *The Art of Tracking. The Origin of Science*; David Philip: Claremont, South Africa, 1990.
- Brown, T., Jr. *The Science and Art of Tracking*; Berkley Books: New York, NY, USA, 1998.
- Foster, D.; Foster, C. Film: The Great Dance: A Hunter's Story. Available online: <https://www.youtube.com/watch?v=UisnHp0Oqc4> (accessed on 8 February 2020).
- Graeber, D.; Wengrow, D. *The Dawn of Everything: A New History of Humanity*; Farrar, Straus and Giroux: New York, NY, USA, 2021.
- Mumford, L. *The Myth of the Machine: Vol. 1: Technics and Human Development*; Harcourt Brace Jovanovich: New York, NY, USA, 1967.
- Stuart-Glennie, J.S. Sociological Studies. In *Sociological Papers*; Galton, F., Geddes, P., Sadler, M.E., Westermarck, E., Hoffding, H., Bridges, J.H., Stuart-Glennie, J.S., Eds.; Macmillan & Co. Ltd.: London, UK, 1906; Volume 2, pp. 243–278.
- Halton, E. *From the Axial Age to the Moral Revolution: John Stuart-Glennie, Karl Jaspers, and a New Understanding of the Idea*; Palgrave MacMillan: New York, NY, USA, 2014.
- Momigliano, A. *Alien Wisdom: The Limits of Hellenization*; Cambridge University Press: Cambridge, UK, 1975.
- Stuart-Glennie, J. *The Modern Revolution. Proemia 1: Pilgrim Memories*; Longmans, Green, and Co.: London, UK, 1876.
- Bellah, R. *Religion in Human Evolution: From the Paleolithic to the Axial Age*; Belknap Press of Harvard University Press: Cambridge, MA, USA, 2011; p. 322.
- Frankfort, H. *Kingship and the Gods. A Study of Ancient Near Eastern Religion as the Integration of Society and Nature*; University of Chicago Press: Chicago, IL, USA, 1948.

37. Quinn, D. "Episode 50: Rewild Yourself." [Blog] Inside the Mind of Daniel Quinn. 2016. Available online: <http://www.danielvitalis.com/rewild-yourself-podcast/inside-the-mind-of-daniel-quinn> (accessed on 28 September 2016).
38. Francis, P. Laudato Si': On Care for Our Common Home [Encyclical Letter]. 2015. Available online: https://www.vatican.va/content/francesco/en/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si.html (accessed on 27 September 2015).
39. Price, D.J.d.S. Automata and the Origins of Mechanism and Mechanistic Philosophy. *Technol. Cult.* **1964**, *5*, 9–23. [CrossRef]
40. Crosby, A.W. *The Measure of Reality: Quantification and Western Society, 1250–1600*; Cambridge University Press: New York, NY, USA, 1997.
41. Koestler, A. "Johannes Kepler"; Encyclopedia of Philosophy; Macmillan: New York, NY, USA, 1967; Volume 4.
42. Mumford, L. *Technics and Civilization*; Harcourt, Inc.: New York, NY, USA, 1934; pp. 14–15.
43. Thompson, E.P. Time Work-Discipline, and Industrial Capitalism. *Past Present* **1967**, *38*, 56–97. [CrossRef]
44. Weber, M. *General Economic History*; Intro; Cohen, I.J., Ed.; Routledge: New York, NY, USA, 1981.
45. Weber, M. *The Protestant Ethic and the Spirit of Capitalism*; Trans. with intro. Kalberg, S., Ed.; Oxford University Press: New York, NY, USA, 2011.
46. Weber, M. Science as a Vocation. In *From Max Weber: Essays in Sociology*; Gerth, H., Mills, C.W., Eds.; Oxford University Press: New York, NY, USA, 1974.
47. Peirce, C. *The Essential Peirce*; Peirce Edition Project Bloomington; Indiana University Press: Bloomington, IN, USA, 1998; Volume 2.
48. Teilhard de Chardin, P. *Hominization. The Vision of the Past*; Collins: London, UK, 1966.
49. Teilhard de Chardin, P. *The Future of Man*; Image Books: New York, NY, USA, 2004.
50. Pontzen, A. The Big Idea: Why the Laws of Physics Will Never Explain the Universe. The Guardian. Available online: <https://www.theguardian.com/books/2023/jul/24/the-big-idea-why-the-laws-of-physics-will-never-explain-the-universe> (accessed on 24 July 2023).
51. Fromm, E. *On Being Human*; Continuum Publishing Company: New York, NY, USA, 1994.
52. Fromm, E. *The Anatomy of Human Destructiveness*; Holt, Rinehart, and Winston: New York, NY, USA, 1973.
53. Wilson, E.O. *Biophilia*; Harvard University Press: Cambridge, MA, USA, 1984.
54. Suzman, J. The Bushmen Who Had the Whole Work-Life Thing Figured Out. The New York Times. Available online: <https://www.nytimes.com/2017/07/24/opinion/the-bushmen-who-had-the-whole-work-life-thing-figured-out.html> (accessed on 24 July 2017).

Disclaimer/Publisher's Note: The statements, opinions and data contained in all publications are solely those of the individual author(s) and contributor(s) and not of MDPI and/or the editor(s). MDPI and/or the editor(s) disclaim responsibility for any injury to people or property resulting from any ideas, methods, instructions or products referred to in the content.