

THE LONG VIEW: THOMAS BERRY'S INSTRUCTION ON THE REFORM OF RELIGION, LAW, AND CULTURE IN HIS LATER BOOKS

By Herman Greene

Thomas Berry, *Evening Thoughts: Reflecting on Earth as Sacred Community*, ed. Mary Evelyn Tucker (San Francisco: Sierra Club Books and Berkeley, CA: University of California Press, 2006; reissued by Berkeley, CA: Counterpoint Press, 2015)

_____, *The Christian Future and the Fate of the Earth*, ed. Mary Evelyn Tucker and John Grim (Maryknoll, NY: Orbis Books, 2009)

_____, *The Sacred Universe: Earth, Spirituality, and Religion in the Twenty-First Century*, ed. Mary Evelyn Tucker (New York: Columbia University Press, 2009)

Thomas Berry was a historian of culture and religions who extended his study to the Earth and the universe. Prior to publishing his ecological books, he published: (1) *The Historical Theory of Giambattista Vico* (1951), which was his PhD dissertation, *Five Oriental Philosophies* (1968), *Buddhism* (1966), and *The Religions of India* (1972). He was a man of prodigious knowledge. He read all the works of St. Thomas Aquinas . . . *in Latin!* and all the works of St. Augustine, also in Latin. He learned Chinese and traveled to China to study Daoism and Confucianism. He learned Sanskrit and studied the religions of India, Hinduism and Buddhism. He studied American Indigenous traditions. He had a personal library of 10,000 books.¹

During the 1970s and 1980s, papers he had written were copied and distributed in eleven volumes as the *Riverdale Papers*. The ideas developed in these papers became the basis for his ecological books: *The Dream of the Earth* (1988), *The Universe Story* (co-authored with Brian Swimme in 1992), and *The Great Work* (1999).² Then he published the three later books shown above, the last two of which were published shortly after his death.³ They deserve and require careful study.

¹ A biography of Thomas Berry will be published in spring 2019, Mary Evelyn Tucker, John Grim, and Andrew Angyal, *Thomas Berry: A Biography* (New York: Columbia University Press, 2019).

² In this same time period, a book based on a symposium held at the Holy Cross Centre for Ecology and Spirituality in Port Burwell, Ontario was published, Thomas Berry and Thomas Clarke, *Befriending the Earth: A Theology of Reconciliation between Humans and Earth*, ed. Stephen Dunn and Anne Lonergan (Mystic, CT: Twenty-Third Publications, 1991). Some of the papers in the *Riverdale Papers* were revised and included in *The Dream of the Earth* and *The Great Work*. *The Universe Story* was all original text though it drew on ideas first developed in the *Riverdale Papers*.

³ Some of the papers in the *Riverdale Papers* were revised and included in these later books. There is one further book by Berry that is a collection of his writings. It provides a broad overview of Berry's work and an excellent reference to his key thoughts, Thomas Berry, *Selected Writings on the Earth Community*, selected by Mary Evelyn Tucker and John Grim (Maryknoll, NY: Orbis Books, 2014).

Late in his life, I had a conversation with Berry in which he asked me, “What do you think my most important work was?” It was highly unusual for him to ask this kind of question as he didn’t give attention to his legacy other than acknowledging that his work would be carried on. I paused to consider how to answer his question, but before I replied he volunteered, “The universe, . . . the epic of evolution.”⁴ I was surprised at his answer.

That conversation occurred more than ten years ago. It wasn’t until I was preparing this review that I understood. I re-read the later books. Then I re-read them again. Then, taking notes, I went through them two more times. I came to understand Berry’s work in a way I had not before. In this review I will write about the awakening I experienced. I’ll start with the event and then I’ll give a four-part explanation: (1) to the religious community, it takes a universe, (2) applying the new story of the universe to religion, (3) applying the new story to law, and (4) applying the new story in general.

The Event

I read Berry’s later books in chronological order. As I neared the end of the last one, *Sacred Universe*, and began reading the chapter on “The Gaia Hypothesis: Its Religious Implications,” I played a CD of soaring music by the singer Sarah Brightman called *Hymn*. All the work I had done on the Foundational Papers of the Center for Ecozoic Studies⁵ as well all my experience with Berry and his work over many years came together in this singular moment. I became the universe: I was the primordial flaring forth, the gravitational waves, the whirling galaxies, and the exploding supernovas that would become stars and planets. I was the steaming planet Earth, the bacteria awash in the sea, and the early eukaryotes and multicellular animals. I exploded in the Cambrian explosion, stumbled onto land, walked with dinosaurs, saw trees and flowers appear, walked upright in Africa, and walked on the moon. I felt the embrace of gravity. I was one with all that had been and all that was to be. I experienced subjective mystical communion with the evolutionary, emergent universe. I was the universe.

To *experience* the universe was what Berry most wanted to give to others. He felt it was critical for the *Great Work*, the work of moving into an ecological age to succeed. But why?

The Explanation

I had thought that Berry’s earlier ecological books, *The Dream of the Earth*, *The Universe Story*, and *The Great Work*, were a trilogy that contained all of his major ideas. These later books, I had thought, were a recapitulation of those ideas, with the exception of the part on Earth jurisprudence. I hadn’t given these later books much attention.

⁴ I have not capitalized “universe,” because it was not Berry’s practice to do so.

⁵ These papers have been collected in Herman Greene, Alice Loyd, and Laurie Cone, eds., “The Foundational Papers of the Center for Ecozoic Studies,” special issue, *The Ecozoic Journal* 5 (2018).

I have a different view of them now. They do largely concern ideas covered in the earlier books, but they do so in a substantially different way. The later books are not just afterthoughts, an archive of additional materials of Berry. They were and are needed for the completion of his work. They are passionate appeals to the religious and legal communities, indeed to all of us, *to take action* with specific instruction on what they and we are to do. I felt like Berry said in these books, “This is what I meant. You must understand what I’m writing here and do what I say here or the Great Work will fail!”

Message to Religious Communities: It Takes a Universe

Regarding religion, Berry writes:

Religion is not a sentimental feeling or a pious attitude or an escape from the real challenge of life. It is, rather, a way of dealing with the hard and difficult and threatening moments of life and with the terrors of death. No other force has yet been discovered by humans that can so sustain us in adversity, so inspire us in moments of exaltation, or so awaken our imaginative and creative powers. (CF, 12)

Given this, the Great Work cannot succeed without religion:

Only religious forces can move human consciousness at the depth needed. (CF, 11)

The religious forces of the world, with their sense of the sacred, [are needed] to evoke the psychic energies [required] to transform a declining Cenozoic Era into the emerging Ecozoic Era. (SU, 83)

Thus Berry sees that the religions of the world, such as Christianity, Islam, Hinduism, Buddhism, Judaism, Chinese traditional religions, including Daoism and Confucianism, and Shintoism have vital roles to play in bringing into being an ecological age. It is not, however, “a case of simply restoring a former religious, spiritual, moral, or humanist tradition. It is a case of re-ordering the human in its entire relationship with the planet on which we live” (CF, 28). For religion to fulfill its task it must function in a way it has not done before.

Berry’s message to religious communities is quite complex and takes a while to explain. At the outset, let me clarify that even though Berry wrote of new forms of religion, his message is primarily addressed to the classical religions:

New religious sensitivities need to be developed. In former times if such a situation had existed, a new religion might have arisen. But the time is over, apparently, when a religion like any of the classical religions could come into being. What is needed now is not exactly a new religion but new religious sensitivities in relation to planet Earth that would arise in all our religious traditions. (CF, 45)

These religions carry with them the intellectual and cultural heritage of humankind. The psychic energies needed for the transformation to the Ecozoic era must be grounded in such depths of experience.

Berry gives a narrative explanation of the birth of religion, the essential elements of religion that gave it the power to sustain and guide the human journey, the historical turn of Biblical religion, the divergence of science and religion in the modern period, and the changes in religion needed today for it to support that transition to the Ecozoic era. While he gives attention to various religious traditions, he gives special attention to Christianity in part because it was his own tradition, but more importantly because of the impact it has had on the West and the impact the West has had on the world:

The present disruption of all the basic life systems of Earth has come about within a culture that emerged from a biblical-Christian matrix. It did not arise out of the Buddhist world or the Hindu or Chinese or Japanese worlds or the Islamic world. It emerged from within our Western Christian-derived civilization. [Other civilizations were not ideal in terms of their intrusion into the natural world,] but their intrusion nowhere approaches the disturbance brought about by our modern Western disruption of the planetary process. . . .

. . . In its historical expression [Western civilization] could not have arrived out of any other tradition. . . . Until we accept that [the central beliefs of Christianity] carry within them a vulnerable aspect we will never overcome our present failure to deal with the increasing disruption of the planet. (CF, 35)

The Covenant of the Universe

Religious traditions give mythical accounts of the beginning of the universe and the birth of humans. We now have evolutionary historical accounts of both. In regard to human history, *Homo sapiens* appeared around 250,000 years ago. Evidence of human symbolic expression dates back at least 80,000 years, and modern capacities for language, ritual, and complex thought developed rapidly around 50,000 years ago. Cave paintings have been found dating back to around 40,000 years ago and especially after 20,000 years ago.

Early humans had no way to encounter the universe other than through direct experience. They had no elaborate verbal accounts of or concepts for understanding the world that stood between them and their experience of it. Active volcanoes, the crashing seas, thunderstorms, hurricanes, tornados, fires, wild beasts were surely frightening and awesome. The love of parents, the songs of birds, the delight of flowers, the beauty of the world around them, the warmth of the sun, and the gift of food were a nurturing presence. Berry wrote that “religion is born out of the sense of the majesty and fearsomeness of the universe” (SU, 82).

All animals suffer. Many animals express fear when facing immediate danger. Humans with their capacity for reflection on both the past (through conscious memory) and the future (through speculative foresight) suffer in other ways as they consider past negative, even terrifying, experiences and anticipate the possibility of negative, even terrifying, experiences in the future. Humans are, also, troubled by causes and consequences for which they have no explanation. The human spirit, which for this purpose means the human will to act, to participate, to trust, to be open to the new, and even to exist both individually and communally, requires emotional and intellectual support. Humans also need support for responding to the mysterious or numinous aspects of life and for creative engagement with novelty, and this kind of support is the special domain of religion though religion also has a role in providing emotional and intellectual support.

Throughout history humans have dealt with challenging human, natural, and cosmic powers under various names:

In antiquity, nothing was undertaken in the human order by humans alone. It had to be done in alliance with both cosmic and spiritual processes. . . .

The reason for the requirement is simple. The terror was there and humans were too frail to deal with it alone. In opposition to the terror were a benign providence and a beneficent universe ready to ally themselves with humans and to assure them of a sense of inner tranquility in the larger pattern of existence, even if humans were permitted to suffer in terrible ways and even to undergo extensive destruction. In the midst of such trials humans gained their true greatness. In the religious-spiritual context there was no ultimate defeat, for humans bore within themselves a transcendent dimension. (CF, 2-3)

To undertake the perilous journey, early humans needed to work out relationships with all of these human, natural, and cosmic forces. "They [became aware of and] lived within the *Covenant of the Universe*, the ontological covenant whereby each component of the universe experienced itself in intimate rapport with the other components of the universe" (ET, 114, italics added). They situated themselves in relation to the cardinal directions, the seasonal cycles, the rising and setting of the sun, the splendor of the moon and stars, the blossoming of plants, and the moments of birth and of death. Cities were built in alignment with the sun, mountains became sacred places. The Omaha Indians offered their children to the moon and the stars and asked for protection from all the powers of the heavens and Earth. In the Chinese world, when the seasons changed the emperor moved from one section of his palace and altered the colors of his garments. In Christian monasteries, monks and nuns sang psalms and hymns throughout the cycle of the day and night. In the Middle Ages, especially through Thomas Aquinas who drew on Aristotle's philosophy, religion, physics, metaphysics, and cosmology were integrated. "This was the great work of Aquinas to restructure all Christian thought within a cosmological perception" (ET, 116).

There were, however, forces counter to this Covenant of the Universe. Berry traces elements in the Western tradition that yielded extreme anthropocentrism, materialism, and a sense of the superiority of and right of domination by Western Christian people. This enabled the West to lead in the development of science, economics, and military power, and also to lead in the assault on nature and the various peoples of the world. The errors of the West have now become endemic in the world at large through the globalized Western economic-industrial meta-civilization of the early 21st century.

Berry's critique of Western civilization is extensive and varied. At heart it concerns the breach of the Covenant of the Universe—this is the going out.

Berry also tells how this long alienation led to a new story of the universe on which a planetary civilization of the future can and must be built. This is the coming home again.

The Going Out: The Long Period of Alienation

The reader will recall that earlier I gave a quotation by Berry that singled out the Western civilization for its devastation of the planet and the close alliance of this civilization with Christianity. Berry said that the West could not have come into being out of any other tradition (CF, 35). He meant by this that developments in Christianity bore directly on how the West developed.

The Six Transcendences

The second chapter of *Evening Thoughts* begins by asking “How did Western civilization, deriving as it does from a biblical Christian humanist matrix, provide the basis for the aggressive commercial industrial culture that grew from it?” (ET, 25). In answer he gives “six transcendences”:

1. *A transcendent, personal, patriarchal, monotheistic creative deity.* This separated the activity of the divine from the natural world, and negated nature religions, the divine feminine, and the presence or manifestation of the divine in and through Earth and the universe. In short, nature was desacralized and Earth as a maternal principle was rendered null. (ET, 25)
2. *The spiritual nature of humans.* Only humans, as spiritual beings, had a relationship with the divine. The material world became profane, composed of objects to be used. Material things as well as other living beings were not sacred in themselves but could only become so through an extra act of consecration, as water is blessed for baptism and bread and wine for the Eucharist. (ET, 26)
3. *The primacy of belief in redemption.* Humans as spiritual beings were not of this world but had their true home elsewhere. Our spiritual journey was one of redemption from the material profane world to our destiny in some transcendent world. The natural

world was seen as the backdrop for the primary drama of human redemption and salvation. (ET, 26)

4. *The transcendence of mind.* Mentality as well as spirit came to be understood as belonging exclusively to humans. The idea that animals or trees had spirits was abandoned and vilified. Descartes's work became the philosophical basis for this break. Matter was to be known by mathematics and measurement, and the living world, with the exception of the minds of humans, was to be known as an extension of the physical forces governing matter. It was in and through the mind that humans were in contact with the divine and from which they derived their special abilities. (ET, 26)
5. *The transcendence of technology.* Technology enabled humans to transcend and subvert the natural principles that governed non-human nature. In nature, species face limits as they are opposed by other species and forces. Humans through their technologies have been able to spread throughout the Earth, increase their population, and dominate other species in a unique manner. These technologies have both overcome and subverted pre-existing natural technologies and have disturbed the order of nature, such as through chemical processes and pollution. (ET, 27)
6. *The transcendent historical destiny of humans.* Berry gives two notions of the historical destiny of humans in Christianity. One is the final destiny of humans in a transcendent world, and the other is the millennial vision, expressed in the Book of Revelation, of humans living in Earthly beatitude in the end times. The latter has driven the wonderworld industrial-technological mentality in which the vicissitudes of nature will be subdued and every ailment to which humans are subject will cease. (ET, 27-28)

The Bible, Greek Humanism, and Roman Law

Berry observes that there were three pillars of Western civilization: (1) the Biblical-Christian tradition, (2) Greek humanism, and (3) Roman legal and governmental structures (SU, 93),⁶ all of which served to undermine the Covenant of the Universe.

Rituals of early peoples and of later traditions in many parts of the world enabled humans to participate in the grand liturgy of the universe (ET, 50). In these traditions there was a pervasive sense of cosmic and divine powers in intercommunion with Earth and all people. This relationship changed in the Biblical-Christian tradition. Berry states, "To alter this primordial sense of continuity throughout the universe seems to have been the basic purpose of the biblical revelation" (ET, 51). In Genesis, the divine created a world extrinsic to itself (ET, 51). In Exodus, the divine formed a juridic covenant with a special people ensuring their superiority over all other people and living beings (ET, 46, 51). The sacred community was understood as primarily one of divine-human relations (ET, 48). The believing community

⁶ Berry also gives a fourth pillar, "the ideals brought into Europe by the tribal peoples from the central Eurasian continent" (SU, 93). He does not elaborate on this pillar.

devoted itself to the pathos of humans on Earth and the redemptive task of ensuring their place in a future trans-Earthly divine kingdom (CF, 61; ET, 51). Human history became the primary focus of divine activity. Historical intervention and deliverance of the Hebrew people from Egypt became the paradigmatic story for the Jewish community (CF, 103). “The incarnational event of Christ both as fulfilling the Jewish sense of sacred history and as giving rise to a new cosmological relationship” became the paradigmatic story for Christians (CF, 104). “The story of the universe began to lose its mythic content in favor of subjective accounts of a devoted life and the realistic historical narratives of the Bible” (CF, 106). The authors of the Christian scriptures and the early Christian tradition derived their sense of the human soul from Greek philosophy and of the preeminence of humans in the natural order from the Greek and Roman worlds (CF, 105; ET, 51-52).

All of this has made “Western religions strangely indifferent to what is happening [in the natural world]. This indifference arises, apparently, as a result of excessive concern for redemptive processes out of this world . . . rather than integration within this world considered to be sacred” (ET, 47).

The Third Mediation: Berry’s Thought and an Expanded Interpretation

In the second chapter of *Christian Future* Berry writes of three mediations in the West. The first was that between the divine and the human. It began in ancient Israel, continued in the early Christian community, and then was communicated to Mohammed (CF, 8). The second mediation began following the industrial revolution when people were divided into different classes, nation-states became dominant, contact between peoples increased, and conflicts ensued. The second mediation concerned inter-human affairs. The third mediation became necessary in the 20th century and continues through today. This mediation is between the human community and Earth. It is important in itself and, in Berry’s view, now the inter-human mediation and the divine-human mediation are also dependent on it.

I give a history of these mediations that is different than that given by Berry as set forth in the preceding paragraph, but which I believe is still consistent with his thought. The journey of humankind is one of the growth of consciousness and conscious self-awareness. As expressed in Genesis 2, in early humans this was a move from innocence (unreflective existence) to conscious self-awareness brought about through the development of language skills, reason, and foresight. With this came meditations on death, loss, illness, and evil. For the early human community to self-consciously undertake the perilous journey of still greater consciousness of contingency and complexity required some way of relating to the mysterious cosmic forces to which they were subject. Mediating the relationship of the human and the mysterious cosmic forces was the first mediation. Berry writes: “The great spiritual traditions of humankind emerged out of confrontation with terror. . . . These spiritual traditions represent humanity’s ultimate confrontation with chaos, with incoherence, with destruction, with the absurd” (CF, 1). This mediation began tens of thousands of years ago in what Berry calls the tribal-shamanic period.

In the period of the Neolithic villages, agricultural surpluses enabled social stratification, diversity of work, technological development, rise of cities, city-states, military forces, and the beginnings of the classical civilizations. I would say the second mediation, the inter-human, began at that time. The period of the classical civilizations was the time of development of cultures, ethics, laws, systems of commerce, and efforts to improve the lot of the human community through social efforts.

I would say the third mediation, the human-Earth, began in the 16th century in what Berry calls the scientific-technological period. This period, which is continuing, has seen the Protestant reformation, religious wars, the Enlightenment, the scientific and industrial revolutions, the rise of nation-states, the colonial expansion of the West, the rise of liberalism, Marxism, and capitalism, two world wars, rapid population, technological, and economic growth, the digital and information revolutions, and globalization. The need for this mediation became acute after World War II at the beginning of what has been called the Great Acceleration and the Anthropocene epoch (see Key Books 8 and 10) and what Berry calls the terminal Cenozoic era (see, for example, ET, 23). The first and second mediations continue, but they have been changed dramatically by developments in the scientific-technological period and they are now intertwined with and dependent on the third mediation.

The technological-scientific period has been known in the West, and to an extent throughout the world, as a period of progress. Yet it has been hugely disruptive to Earth and its people, which Berry sharply criticizes. Berry writes

We are, in fact, at the end of a religious-civilizational period. By virtue of our new knowledge, we are changing our most basic relations to the world about us. These changes are of a unique order of magnitude. . . .

. . . We are bringing about a devastation of Earth such as the planet has never experienced in the four and a half billion years of its formation.

We are changing the chemistry of the planet, we are disturbing the biosystems, and we are altering the geological structure and functioning of the planet, all of which took some hundreds of millions even billions of years to bring into being. (SU, 119)

Yet along with devastation, Berry saw something else that was happening: an emerging new synthesis of understanding needed for the third mediation and for the transformation of the first and second mediations.

The Coming Home Again: The Ecological Age

The Long Secular Meditation of Science

The scientific-technological age has been a long period of scientific discovery. The foundations for this were laid in the 14th-17th centuries:

- In the late 14th century the Black Death peaked in Europe. It killed 30-60% of Europe's population and profoundly affected its consciousness. The post-Black Death period "saw the Western soul positioned in radical alienation from the natural world. . . . [This] sixteenth and seventeenth century alienation from the natural world left the scene open for scientific perception of the world as mechanistic in structure and subject to whatever technological controls humans could invent to make nature increasingly useful to them" (CF, 62).
- In 1439 Johannes Gutenberg invented the printing press with movable type. This provided a means of mass communication in the later Renaissance and the Protestant Reformation and a concentration on the written word, including the Bible. The Renaissance (14th to 17th century) and the Reformation (16th and 17th centuries) each placed an emphasis on humanism and the individual and undermined the authority of the Catholic Church and its deductive scholastic teachings.
- René Descartes (1596-1650), a philosopher, mathematician, and scientist, became the father of modern philosophy. His philosophical method was rationalism, which treats reason as the primary source of knowledge and criterion for truth rather than sensory experience. He held that the universe contained two radically different types of substances, mind (which was immaterial and un-extended), and unthinking matter (which was material and extended). The mind had purpose; matter, which included all of nature except the human mind, had none. This was a break from the Aristotelian philosophy of the Middle Ages, which held that everything was subject to teleological causation. This opened the door to modern physics and to the unhampered investigation of living beings as unfeeling, unthinking objects of study and use.
- Nicolaus Copernicus (1473-1543), Galileo Galilei (1564-1642), and Isaac Newton (1642-1727), among others, established the new mechanistic science and cast Earth out of the center of the universe and, indirectly, God's providence and divine ordering.
- Francis Bacon (1561-1626), became the father of empiricism and the scientific method. He argued for scientific knowledge on the basis of inductive reasoning (rather than the deductive approaches of the scholastics and Descartes) and observation. He differed from Descartes in that he did not make metaphysical claims about nature.

From these foundations came the enormous scientific and technological discoveries of the modern period, and from those discoveries, industrial civilization. In the succeeding

centuries, scientists intently observed the dimensions, dynamics, and intricacies of the universe and Earth, and in doing so brought into being a new account of the universe as a sequence of transformations from the primordial flaring forth, to the formation of galaxies, Earth, life, and the human. To accomplish this they needed to set aside the larger dimensions of meaning in this story:

Narration of this sequence has required the immense efforts of scientific investigation of these past few centuries. It has necessitated the setting aside, for a while, of the spiritual, visionary, intuitive, imaginative world in order to probe as deeply as possible into the visible, material, quantitative world, the measurable world, the world that could be expressed in the language of calculus, the great instrument of the scientific endeavor. (ET, 56)

The New Scientific Cosmology

Berry's conviction is that the world is presently controlled by the new scientific cosmology and Christianity can do little without understanding it.

Our world is not presently controlled as such by its philosophy but by its cosmology. Our modern cosmology is associated with the observational sciences, whereby we have come to understand our universe in terms of its evolutionary unfolding over vast periods of time and through the vast extent of space. Presently, Christians are not thinking or acting within this accepted story of the universe. Yet outside of this story we can do very little in making the Christian vision visible. (CF, 26)

It is important to understand in what sense Berry means that our world is presently controlled by this new scientific cosmology. The human project began in the context of a sacred or at least an enchanted universe. The mythical structures of meaning and belief that were developed were intuitive constructions. The universe was known in a spatial sense of just *being there* in its wonder and vastness, and renewing itself through seasonal cycles. Religion celebrated this universe and its seasonal cycles and the cosmic powers that sustained them. While the universe was grand in its design, Earthly existence in the universe was often harsh and a cause of suffering. Religions adopted various understandings of redemption from these Earthly trials. In the medieval period, theologians, drawing on Greek philosophy and rationality, developed a deductive integration of religion with physics, metaphysics, and cosmology.

The new scientific cosmology, however, has been based neither on intuition nor deduction, but rather on empirical observation aided by new scientific orientations, methods, and instruments. These observations disclose the universe's material processes of creation and its time-developmental or evolutionary mode of being in contrast with the spatial/cyclical mode of being of the old cosmology. These materialist understandings and creation dynamics are the driving force behind contemporary technological-industrial development and give rise to a secular creation spirituality that is the Zeitgeist of our age.

Redemptive spirituality with its lack of regard for creation processes fails to provide the guidance needed for this time:

A redemptive spirituality that functions without regard for the larger human community or regard for the natural world that supports life is not likely to be effective in our secular world. Such a spirituality uses a rhetoric unavailable for our secular world, or if it is available it risks widening rather than closing the tragic inner division between the world of daily affairs and the world of divine communion. It cannot offer an adequate way of interpreting the inner life of the community in a rhetoric available to the community. Nor does it establish an understanding of that authentic experience in contemporary life that is oriented toward communion with creation processes. (SU, 70)

Science understands these creation processes, but the secular science does not provide the needed guidance either:

The world committed simply to the secular scientific order does not find abiding satisfaction in what it is achieving. Ignorant of any spiritual significance in what we are doing, we remain profoundly dissatisfied, inwardly starved, spiritually and humanly debilitated, and unable to carry out our finest endeavors. The world is not experiencing the higher re-birth that is needed. The changes effected by scientific and technological improvements of our earthly status are not sufficient. (SU, 13)

When Berry says that our world is controlled by the new scientific cosmology, he is saying that we live in a world that is controlled by secular science, technology, and industrial development operating on the basis of this cosmology. Religion, which largely operates out of a spatial/cyclical cosmology with a message of redemption out of the creation processes rather than authentic engagement in them, is either ineffective in speaking to a world so controlled or it is inadvertently subservient to it by failing to address the spiritual issues in and within the context of the new scientific cosmology.

The New Philosophical Cosmology: Combining Science, Philosophy, and Theology

Until the modern period cosmology was understood as a theological and philosophical endeavor. In the scientific-technological period, cosmology came to be understood largely as physical cosmology developed by scientists. Because Berry often refers approvingly to contemporary scientific cosmology, one might infer that Berry adopts its cosmology. Berry does accept contemporary science's physical description (its physical cosmology) of the universe, but not its cosmological assumptions about the universe (its philosophical cosmology). The cosmological assumptions of science include that the universe is composed of inert matter in motion and that the universe is the way it is only because of antecedent causation (cause-and-effect relationships), material properties, form, laws of motion, and randomness. Further, according to Alfred North Whitehead, contemporary science is organized around a narrow

range of interests, positivism,⁷ utilitarianism, and empiricism,⁸ and to that list I would add anthropocentrism. As a philosophical cosmology, the secular scientific cosmology sees no higher purposes in the universe, and asks only what is it? is it useful? and does it produce happiness for people, including by way of profit for industry? In the scientific-technological period, the secular scientific cosmology has become the reigning philosophical orthodoxy.

From a philosophical standpoint, the term “physical cosmology” or “mathematical cosmology” when understood to mean philosophical cosmology is a misnomer. Philosophical cosmology has always concerned, in part, the physical aspects of the universe as developed by the science of its time, but these are only part of its considerations. In terms of philosophy, cosmology is part of metaphysics. Metaphysics concerns the nature of reality or being. The name *meta*-physics was given by Aristotle to refer to reflections that go beyond what can be answered by physics or more generally by the natural sciences. Metaphysics refers to our deepest intuitions and notions about the nature of reality. Philosophical branches of metaphysics include ontology, which concerns the nature of being or existence; cosmology, which concerns the nature of the universe as a totality; and cosmogony, which deals with the origin of the universe including the purpose or purposes of the universe. These branches of metaphysics overlap and thus can never be clearly separated. In a philosophical sense Berry’s cosmology has content related to all three branches.

Philosophical cosmology engages a broader range of experience than physical cosmology. Science focuses on particular occurrences, philosophy seeks generalities that encompass all of reality.⁹ Rémi Brague explained philosophical cosmology this way: As humans construct their understanding of the physical aspects of nature, they also construct their understanding of what it means to exist in this physical reality—what is the nature of the world? what is its ethical character? what it is possible for them and others to do in such a world? and what is ethical fulfillment in such a world? Thus, from the standpoint of philosophical cosmology, the “world” is more than a description of physical reality, it is a reflection on the nature of the world and what it means to be in the world.¹⁰ Theological

⁷ **Positivism** is a philosophical theory stating that certain (“positive”) knowledge is based on natural phenomena and their properties and relations. Thus, information derived from sensory experience, interpreted through reason and logic, forms the exclusive source of all certain knowledge. . . . Verified data (positive facts) received from the senses are known as empirical evidence; thus positivism is based on empiricism. Positivism also holds that society, like the physical world, operates according to general laws. Introspective and intuitive knowledge is rejected, as are metaphysics and theology because metaphysical and theological claims cannot be verified by sense experience. Wikipedia contributors, “Positivism,” *Wikipedia, The Free Encyclopedia*, <https://en.wikipedia.org/w/index.php?title=Positivism&oldid=878703852> (accessed March 23, 2019).

⁸ Alfred North Whitehead, *Adventures of Ideas* (1933, 1st paperback ed., New York: The Free Press, 1967), 36.

⁹ *Ibid.*, 143.

¹⁰ Rémi Brague, *The Wisdom of the World: The Human Experience of the Universe in Western Thought*, Teresa Lavender Fagan, trans. (Chicago: The University of Chicago Press, 2003), 5-6 (also see Key Essay 7).

cosmology (or more broadly religious cosmology) has concerns that are similar to philosophical cosmology, except that theological or religious cosmological reflection is informed by religious experience, teachings, traditions, and mythologies.

If we can imagine, following Brague, that cosmology concerns what the nature of the world is and what it means to be a human in the world, then we can imagine these are the most basic questions we can ask, and if we reflect further we can imagine these are the most important and most consequential questions we can ask. Whitehead made this observation about cosmology: “In each age of the world distinguished by high activity there will be found at its culmination, and among the agencies leading to that culmination, some profound cosmological outlook, implicitly accepted, impressing its own type upon the current springs of action.”¹¹ Regarding the difficulty of seeing the cosmology of one’s own age, he wrote: “In each period there is a general form of the forms of thought; and, like the air we breathe, such a form is so translucent, and so pervading, and so seemingly necessary, that only by extreme effort can we become aware of it.”¹² Transitions in ages are marked by changes in cosmologies. Cosmologies change as a result of intellectual inquiry and argumentation, but even more so because an old cosmology proves to be inadequate for the realities of a new time.¹³

Secular scientific cosmology was a profound philosophical cosmology for the scientific-technological age. It supported, for better and worse, the great achievements and failings of the modern period. It has been in place so long that we hardly know it is there. In industrial civilization we live in and by it. It is not, however, an adequate cosmology for an ecological age. Berry, who was deeply concerned about ecological devastation, sought to address it by changing the reigning cosmology.

He sought to do this in an unusual way, not by philosophical argumentation to develop a philosophy for philosophers, but rather by story and by reference to ecology in order to develop a *functional* cosmology for the world at large. Thus he wrote, “The story of the universe expresses a functional cosmology” (ET, 22). And he wrote, “Ecology is a functioning cosmology” (ET, 30),¹⁴ because “ecology refers to the way the universe functions” (ET, 31). Regarding what a functional cosmology is, Berry wrote, “We need above all a sense of the universe, how it functions, and our human role in the universe” (ET, 96). This description is very close to Brague’s, though they arrived at their descriptions independently.

¹¹ Whitehead, *Adventures of Ideas*, 12.

¹² *Ibid.*, 12.

¹³ See Alfred North Whitehead, *Process and Reality*, corrected ed., David Ray Griffin and Donald W. Sherburne, eds. (New York: The Free Press, 1979).

¹⁴ Berry’s use of the term “functioning” here rather than “functional” is not significant. Elsewhere he wrote “Ecology is a functional cosmology” (e.g., SU 138).

It is an error to equate Berry's cosmology with secular scientific physical cosmology. The universe story is based on science's current physical description of the universe,¹⁵ but Berry did not see this physical cosmology as being complete or functional in a philosophical sense because it does not give an adequate sense of the universe, how it functions, and our human role in it. While he generally did not identify his use of philosophical concepts, when he wrote, for example, that the universe is revelatory or the universe has a psychic-spiritual dimension, he was challenging secular scientific cosmology and, also, modern philosophy inasmuch as it follows on Descartes and/or Kant. Berry's cosmology falls within the traditional understanding of cosmology as a philosophical and theological endeavor.

Thus Berry would say, "Science can tell us how many times the strings of a violin vibrate, but it cannot hear the music." In other words, science is complete in its description of the physical aspects of the music, but it is not complete in describing the nature of reality because the music is also real and is an integral part of the universe.

And he would also say, "When science thinks it's a [philosophical] cosmology it is a danger. When science functions within an adequate [philosophical] cosmology it becomes a wisdom."

The New Functional Cosmology

Berry begins his explication of functional cosmology with the assertion that "the universe is the only self-referent mode of being in the phenomenal world,¹⁶ it constitutes the norm of all reality and value. The universe is the only text without context. Every particular mode of being is universe-referent, and its meaning is established only within this comprehensive setting" (ET, 23). What he is saying is if we want to know what the universe is,

¹⁵ It's a mistake to tie the new story tightly to a specific set of scientific theories or facts, because science is the story of changing stories. Some of today's scientific theories and facts about the universe will change. For humanistic purposes, we only need worry about the new story if scientists one day determine that we do not live in an evolutionary, interdependent universe. Science will continue to be a crucial guide to ecozoans in understanding the physical universe and Earth's life, ecology, and life systems as science itself continues to evolve.

¹⁶ When Berry writes that the universe is self-referent in the *phenomenal* world, he means the world of our experience, including the world we experience through the observations and methods of science. Berry uses the term phenomenal frequently which I have felt for a long time is unfortunate because of the meaning of this term in philosophy. Phenomenal means of or relating to phenomena, the plural of phenomenon. Phenomenon means something that is perceptible by the five senses. That we can only know the world through our senses is the sensationalist theory of perception found in much of modern Western philosophy. Berry writes of other ways of knowing, such as through intuition, dream experience, and somatic (bodily) awareness. Another issue is that the term "phenomenal" is associated with Kant's philosophy where he distinguished the phenomenal world—the world as we can know it through our limited forms of knowledge and categories—and the noumenal world—the world as it actually is—or one might say the world in its full reality. Beliefs about the divine fell into the noumenal world. Kant for the most part ended metaphysics in Western philosophy. I do not believe Berry accepted Kant's epistemological dualism any more than he accepted Descartes's ontological dualism. I pointed these problems out to Berry and he didn't decide to change his use of phenomenal. Nonetheless, I feel warranted in substituting "the world of our experience" for the "phenomenal world" wherever it appears in Berry's writing.

what its purpose and nature are, and what our role in the universe is, we just need to study the universe and our own experience of it. Since we now know through science that the universe has come into being and continues to come into being through an evolutionary, a/k/a time-developmental, process, then to know and experience the universe is to know and experience it as story . . . a still unfolding story. Our experience of a numinous, effective power at work in the universe is real, it is our experience of the divine as the originating power of the universe and as ongoing creative activity within it. What we know of the divine is given in our temporal experience of our temporal universe, for it is the “primordial sacred community,” the “primary revelation of the divine,” “the primary referent in any discussion of reality or value” (CF, 25), and the “primary locus of divine-human communion” (ET, 70). “Our experience” includes our own subjective experiences and our apprehensions of the collective experience of humanity gained through social interactions, culture, religion, education, dreams, archetypes, and more. It includes the total experience of humanity throughout history as it is communicated to us, including humanity’s scientific knowledge of the universe.

So how do we know our universe, this text without context, and draw value, meaning, and guidance from it? Children know and early people knew the universe naïvely. Berry speaks of this naïve encounter as an encounter with wonder, beauty, and intimacy, though as written earlier in this paper, it is also an encounter with terror and much more. In our contemporary world, this period of knowing the universe naïvely as fresh impression, however, lasts only for a short time. Early in our lives our knowledge of the universe becomes culturally mediated. Our experience of the universe is shaped by what our acculturation process teaches us about the universe and also the way our culture presents the universe to us through modes of civilizational presence and symbols. As adults in the modern world, the nature of the universe is well articulated to us through secular scientific cosmology, which, in accord with the quote above by Whitehead, “like the air we breathe [this cosmology] is so translucent, and so pervading, and so seemingly necessary, that only by extreme effort can we become aware of it.” In the scientific-technological age we live in and by it. It does tell us what the nature of the world is and what our role in it is, and this is not good because it tells us that the universe is a collection of objects, and we are to be producers and consumers in an industrial civilization.

Our contemporary knowledge of the universe is distorted and obscured by the secular scientific cosmology and by older spatial/cyclical cosmologies. To an extent we renew our relationship with the universe and more immediately with Earth through renewing our encounters with nature, such as through intentional walks in natural settings. Yet, an educational process must also take place by which we come to know and understand a different cosmology. A part of this is head knowing and a part of this is heart knowing, and they go together. As acculturated people we may have experiences of a harmonious and luminous universe like we had as children, but we are not having the same experience we had when we were children. We recover the “lost mind of the child” through a second naïveté, one that we recover through critical processes of earlier interior awareness (SU, 23; in SU, 116, Berry calls this postcritical naïveté). In other words we have to work through what we have been taught and learn a new cosmology in order to engage the universe anew as a revelatory experience.

An important part of the new cosmology concerns learning the scientific story of how the universe emerged—the Big Bang, the stars, the galaxies, the supernovas, the sun, the planets, life on Earth, prokaryotes, eukaryotes, multi-cellular animals . . . the flowers, the trees . . . humans. There is more to learn: There is learning about interdependence and the meaning and values of the universe. There is learning the ecology of Earth and the human role in it. There is interior learning of the psychic-spiritual dimension of the universe and its teleology. There is gratitude and awe and recovering a sense of the sacred. One never fully knows the new cosmology, one discovers it over a lifetime. Berry said the universe story provides the basic framework for education from preschool through professional schools (ET, 22). That’s how complex it is. Yet it is also as simple as a leaf on a tree or a child’s bedtime story. Every particle tells the story of the universe in its own way, and collectively it is like a symphony (ET, 31).

To respond to the ecological devastation of our time, humans will have to change how they live at the local level, but also they will need to respond all together. We may call this collective response “global,” but as in the Gaia theory of how natural systems attain a certain homeostasis globally, this doesn’t refer to a response by a superorganism, but rather to sensitively responsive, coordinated actions in all localities. To be ecologically sensitive requires a new shared, global cosmology different than the already globalized secular scientific cosmology. Berry believed that the new story, the new functional cosmology, could be that. It could heal old divisions and provide guidance on how the Earth functions and our human role in it. He writes, “For the first time the entire human community has, in this story, a single creation or origin myth” (CF, 25). “The long course of scientific meditation on the universe has finally established the emergent universe itself as a spiritual as well as a physical process and the context for a new mode of religious understanding. We might describe it as a meta-religious context for a comprehensive view of the entire complex of religions” (CF, 23). While he doesn’t write this, in a philosophical sense we might, also, describe the new story as a meta-philosophical cosmology for the ecological age.

The New Story

In one of the more famous lines in Berry’s writings, he says: “It’s all a question of story.”¹⁷ Berry felt that neither science nor religion has understood the meaning of the new story. They have failed to understand (1) the cosmic significance of Earth and the human, (2) that the universe is a psychic-spiritual as well as a physical phenomenon, (3) that in the story of the universe, we contemporary humans have arrived at the ending of a geo-biological era—we are facing the sixth mass extinction in the history of the planet and we are shutting down Earth’s life systems, and (4) it is critical that we move into an ecological age, which means attending to the larger community of Earth in the integrity of its functioning. Science informed by religion and religion informed by science both have crucial roles to play in the needed transition to an ecological age.

¹⁷ Thomas Berry, “The New Story,” in *The Dream of the Earth* (San Francisco: Sierra Club Books, 1988).

Berry believes the needed change to an ecological civilization can only come about when the sense that we live in a sacred universe is restored. This cannot, however, happen in the way that it did in the past when the universe was understood in a spatial/cyclical mode. It can only be accomplished through the new story. There is a “crossing over” that needs to take place for one to understand what Berry means by this. To understand the universe story is to be grasped by it:

The story of the universe and of the Earth as is now presently available to us . . . is our way of dealing with the ultimate mystery whence all things came into being. It is much more than an account of matter and its random emergence into the visible world about us, because the emergent process . . . is neither random nor determined but creative, just as in the human order creativity is neither a rational, deductive process nor an irrational wandering of the undisciplined mind, but the emergence of beauty as mysteriously as the blossoming of a field of daisies out of the dark Earth. (SU, 110)

Throughout [the] confused disorderly, chaotic process [of the emergent universe], we witness enormous creativity. (SU, 123)

The universe emerged into being by a creativity beyond anything we can imagine, a world that assumed its present form by an unpredictable, self-organizing power. What is truly amazing is that these unpredictable processes . . . produced a universe so coherent in its structure and so finely ordered in its functioning amid the turbulence of an awesome and relentless inner creative energy. (ET, 117)

The phenomenal universe that we observe in such detailed scientific fashion cannot be explained simply in itself. In every way it is dependent on a numinous, trans-phenomenal, divine creative power. When we explain the universe as we now know the universe in its long sequence of transformations, we are explaining the manner in which the Creator has brought the universe into being. Yet we must recognize that the universe is not a puppet creation manipulated by some transcendent power. . . . The divine creates a phenomenal world with the power to develop greater complexity through emergent processes. The wonderful thing about the universe is that it constitutes an absolute unity in which each component is universe-referent and all the components are inter-referent among themselves. (CF, 65)

Science and the secular world through their reductive, analytical methods missed this understanding of the universe as a processual, integral, psychic-spiritual-material reality. If as science proposes, the universe is ever integral with itself throughout its sequence of transformations (ET 57, 64), then the universe may be understood through its later, composite, complex developments as well as its earlier, elemental realities:

Another way of proceeding [than beginning with elementary particles] is to begin with human consciousness and to say that we are ultimately aware of the human psychic mode of being. There is no way of accounting for the human mode of being and

functioning other than through the prior structure and functioning of the universe itself. If the human has a psychic-spiritual mode of being, then the universe must be a psychic-spirit-producing process. The later more complex and conscious realities of the universe give us deeper insight into the structure of the universe than do the elementary parts out of which the later wholes and modes of consciousness emerge. Indeed, since the universe is a singular reality, consciousness must, from its beginning, be a dimension of reality, even a dimension of the primordial atom that carries within itself the total destiny of the universe.

To study the universe without the human is to study an abstraction. (ET, 65)

Both the Earth and the human have special significance in the universe.

The planet Earth might well be the most unique reality in the universe precisely in its capacity for bringing forth in the unity of a single being all those various modes of physical structure, organic life, and consciousness that presently constitute the reality of the planet. It also seems that Earth has the status of a privileged planet not simply within our solar system but possibly throughout the entire universe. [Perhaps the universe needed to be as old and as big as it is] to produce a planet such as Earth which has the requisite conditions for the emergence of life and the human form of consciousness. (SU, 113)

The universe from the beginning has been a psychic-spiritual as well as a physical-material reality. Within this context the human activates one of the deepest dimensions of the universe and is, thus, integral with the universe from its beginning. (ET, 57)

Any creative deed at the human level is a continuation of the creativity of the universe. (ET, 59)

The special gifts bestowed upon the human are given, not primarily for the human, but for the perfection of the entire universe.

That perfection requires the human to fulfill a certain role of enabling the universe to reflect on itself and that numinous origin from which the universe and every being in the universe comes into being, is sustained in being, is moved to action, and is brought to its fulfillment. Humans exist for the integral community of existence. (CF, 48)

We are beginning to see ourselves as the universe that produced the human mind and the mind that knows the universe. The universe that human intelligence knows is the only universe that could possibly produce human intelligence. (ET, 60)

The perfection of the universe is a recurring theme for Berry. On many occasions he quotes these statements by Aquinas:

“The order of the universe is the ultimate and noblest perfection of things.” The reason is that the divine could not imagine itself in any single being so the divine brought into being an immense variety of beings. Thus the perfection lacking in one would be supplied by the others. “Consequently the whole universe together participates in the divine goodness better than any single being whatever.” (SU, 115)

“While [Aquinas] was thinking in a spatial rather than a time-developmental mode of consciousness, his principle of the greater value of the comprehensive reality remains valid for the sequential processes whereby the universe and planet Earth articulate themselves.” (CF, 31)

He observes that the sometimes chaotic, enormously creative time-developmental processes of the universe have produced an amazing, in many senses mystical, coherence and he sees this especially in genetic codings:

The ultimate creative genius of the Earth [is seen in] the emergence of the total biospheric interaction of genetic codings and the mutation processes whereby new codes are developed within the interplay of the various living and nonliving energy systems. (ET, 71)

Our study of genetics may provide us with a pattern of the components governing the genetic process, but we will never have physical experience of the inner principle that enables this amazing complex of genetic materials to function with the unity and spontaneity we observe in the unfolding processes of life. (ET, 55)

The deepest mystery of all this is surely the manner in which these forms of life, from the plankton in the sea and the bacteria in the soil to the giant sequoia or to the most massive mammals, are ultimately related to one another in the comprehensive bonding of all the life systems. Genetically speaking, every living being is coded not only in regard to its own interior processes but in relation to the entire complex of earthly being. . . .

. . . Earth is the larger subject that activates its being in the total complex of spheres that constitute Earth: the geosphere, the hydrosphere, the atmosphere, and the biosphere. None of these has existence of function apart from its unity in Earth. (SU, 111-12)

And just as Earth, understood as the unity of the functional dynamics of our planet, acts in all aspects of our planet, so too the universe, understood as the unity of the functional dynamics of the cosmos, acts in all that is.

That there is unity within the incredible complexity and diversity of the universe and our planet is a surprise and mystery. It cannot be accounted for simply by mechanical forces or even digital calculations of the most advanced kind. It is analogous to the unity with which our body functions and also our consciousness which is embodied but not located in any particular part of our body. We, our history, our Earth, are part of the universe, just as any member of our body is part of our body:

Today we are in a new position where we can appreciate the historical and the cosmic as a single process. This is the vision of Earth-human development that will provide the sustaining dynamic of the contemporary world. We must nourish awareness of this vision. Our language needs to acknowledge both the physical and psychic dimensions of this organizing force. It needs to be named and spoken of in its integral form. Just as we see the unified functioning of particular organisms, so too Earth itself is governed by a unified principle in and through which the total complex of earthly phenomena takes shape. (SU, 75)

This unique mode of Earth-being is expressed primarily in the number and diversity of living forms that exist on Earth, living forms so integral to one another and with the structure and functioning of the planet that we can appropriately speak of Earth as a “Living Planet.” . . .

. . . In speaking about Earth as a living being, we are indicating that some of the basic aspects of life, such as the capacity for inner homeostasis amid the diversity of external conditions, are found . . . in the comprehensive functioning of the planet. . . .

. . . Earth cannot reproduce itself [yet] there are similarities that justify the use of the term “living” to describe the functioning of Earth in its integral functioning, especially in its capacity for self-adjustment to the diversity of internal conditions to which it is subject. This “feedback” process is so remarkable that along with the capacity of the planet to bring forth an abundance of life forms, Earth can be described not simply as living but as living in a supereminent manner. (SU, 110-111)

Thus Berry calls us to behold, to be aware of, to study, and to experience within ourselves the dynamic evolving integral reality and unity of the universe. The universe is never *just there*, it is always coming into being, announcing itself with newness, spontaneity, surprise, and creativity. It is not perfection in a static sense—perfection has historically been understood as what is unchanging—it is perfection in order, process, and diverse, ever-changing component relationality in movement toward some incomprehensible higher mode of communion that might be characterized as greater complexity, consciousness, intensity of experience, and beauty.

This new story comes to us as a revelatory experience:

As all creativity involves being seized by an archetypal reality in the unconscious depths of the universe, as creative religious personalities were seized by revelatory experiences of the divine whereby they created the religious cultures of the past, so now we are being seized by a new revelatory experience that is coming to us in the new origin story and its fulfillment in this latest communion phase of the universe. It is the supreme challenge of our period to bring this new origin story into its fuller articulation. With this story as an orienting context, our way into the future is possible. (ET, 74)

In response to this experience, we have a *new task*:

What we are concerned with is the shaping of the human world itself: identifying values, establishing a civilizational discipline, molding a language that can carry our deeper interpretations of human experience, activating a communion with the divine, and providing an educational program in which succeeding generations can achieve an expanding life pattern along with an interpretive vision of reality. All of these creative functions need to be fulfilled while we are establishing an encompassing human community that can relate effectively with the living and nonliving systems of the planet. (ET 64-65)

Applying the New Story

The last three sections of this paper concern applying the new story to religion and law, and then in general.

Reform of Religion

As stated at the beginning of this paper, religion has a special role to play in the movement to an ecological age. Berry says only religion with its sense of the sacred can provide the psychic energy needed. He makes clear that by religion he means primarily the classical religious traditions. At the same time he says religions need to function in a new way. In this part I will add to what I have already written above about this new way. I will write mostly about the Christian tradition, though in other religions I think there are parallels to what is written here.

Since the 1970s, there has been a lot of activity in the church to bring environmental concerns forward. In addition, many hymns and liturgies have been developed to highlight God's role in creation and our responsibility to care for it. There is also a very extensive literature of theological, Biblical, and church history studies concerned with creation and environmental stewardship. In some circles creation theology and spirituality, sometimes grounded in Celtic spirituality and Christian mystics, are well known. Efforts have also been made in church administration to institute sustainable practices.

The demands on the church made by Berry in these later books, however, are of a different order. He calls for changes in the life of the church that would ordinarily take centuries to achieve. He calls for a reorientation that would alter every aspect of the life of the church.

The reform of the church begins with cosmology:

The cosmological narrative is the primary narrative of any people, for this is the story that gives to a people their sense of the universe. It explains how things came to be in the beginning and how they came to be the way they are. It provides the first sense of creativity in a story that is generally recounted at any significant initiation event of the community or a person. It is a healing story, a power story, a guiding story. All human roles are continuations, further elaborations, explanations and fulfillments of this story. (ET, 59)

Cosmology is the unifying context and the ultimate referent for all human understanding. (ET, 31)

While there are complex ideas associated with cosmology as set forth in this paper, Berry is primarily concerned about a functional cosmology. As stated earlier he says: ““We need above all a sense of the universe, how it functions, and our human role in the universe” (ET, 96). This entails attention to the vastness of the universe and the awe it inspires:

The sacred is that which evokes the depths of wonder. We may know some things, but really we only know the shadow of things. We go to the sea at night and stand along the shore. We listen to the urgent roll of the waves reaching ever higher until they reach their limits and can go no farther, then return to an inward peace until the moon calls again for their presence on these shores.

So it's with a fulfilling vision that we may attain—for a brief moment. Then it is gone, only to return again in the deepening awareness of a presence that holds all things together. (SU 177)

For us Earthlings, it especially concerns attention to the dynamics of life on Earth. As stated earlier, Berry writes that “ecology is a functional cosmology” (SU, 138), because “ecology refers to the way the universe functions” (ET, 31). Ecology is the study of living organisms and their environments, in other words all the interdependent relationships that make life possible on Earth. We learn ecology in books, but we also learn ecology when we are attentive to life around us. Planting and tending a garden is a study in ecology. Observing the effects of urban and industrial development is a study in ecology. Attending to growing meat-based diets and factory farming is a study in ecology.

Thomas Mann wrote a book called *God of Dirt: Mary Oliver and the Other Book of God*. This is a good title as the mass of subterranean life, primarily microorganisms, has been

calculated to be about 20 billion tons whereas the total mass of humans is a little more than half a billion tons. Dirt and the life within it is God's creation and must be the subject of care. A functional cosmology, in other words ecology, is *down to Earth*.

The second part of the title of this book is also good, because the role Berry sees for religion is to sustain us in adversity, inspire us in moments of exaltation, and awaken our imaginative and creative powers (CF, 11). Mary Oliver's poetry draws us into the God's other book, the book of nature. You could say her poetry is a functional cosmology.

"Breakage,"

By Mary Oliver¹⁸

I go down to the edge of the sea.
How everything shines in the morning light!
The cusp of the whelk,
the broken cupboard of the clam,
the opened, blue mussels,
moon snails, pale pink and barnacle scarred—
and nothing at all whole or shut, but tattered, split,
dropped by the gulls onto the gray rocks and all the moisture gone.
It's like a schoolhouse
of little words,
thousands of words.

First you figure out what each one means by itself,
the jingle, the periwinkle, the scallop
full of moonlight.

Then you begin, slowly, to read the whole story.

Bringing the new story into the church will require that all aspects be rethought and recast within these new understandings. Within the Christian tradition this would include "the human condition, revelation, redemption, incarnation, the savior personality, faith, grace, sacrifice, rebirth, interior spiritual discipline, divine union, sacred community, communion with the cosmos, and final beatitude" (SU, 25). Berry reflects on some of these:

Incarnation: By our perception of the human as a mode of being of the entire universe we have an appropriate context for understanding the cosmic dimension of the Christ reality. . . .

¹⁸ "Reading Pathways: The Best Mary Oliver Poems," <https://bookriot.com/2019/01/16/mary-oliver-poems/> (accessed March 29, 2019).

Redemption: Our sense of entropy in the unfolding universe gives us a basis for appreciating sacrifice as a primary necessity in activating the more advanced modes of being. . . .

Christian Community: The Christian community, too, can be seen as integral with the larger story of the universe, of Earth, of life, and of the human community. As Thomas states, the ultimate community is the whole universe together. This [(the whole universe)] we can consider the primary intention of the divine in creation, redemption, and ultimate transformation. The Christian community in taking shape through history has a primary role in articulating this vision and achieving this purpose. Yet it must be remembered . . . that no subordinate segment of the universe community can replace the comprehensive community as the primary purpose or primary value of the universe. . . .

The integral universe, then, constitutes the sacred community . . . and needs to be recognized as such within the Christian community. This realization is the basic reason for Christian concern for what is outside itself. The Christian community needs both to assimilate the rest of reality and to be assimilated by the rest of reality, by the human community, the Earth community, and the universe community, in accord with Saint Paul's expression of the divine being "all in all" (1 Corinthians 15:28). (CF, 34-35)

Liturgy would invite people into the grand liturgy of the universe and their role in the universe process. New liturgies would celebrate the emergent universe from its primordial beginnings through its sequence of transformations whereby the universe, Earth, the living world of plants and animals and the human came into being. They would recognize the spiritual capacities of the elements. Carbon stands out as it participates in and enables the life of all plants and animals and the highest spiritual capacities of humans. Liturgies, prayers, and teachings would recognize that matter matters. (SU, 106)

Spirituality would be understood not as some new piety, rather it would be understood as creative participation in Earth community. The new saint would be the integral ecologist (SU, 136), people such as Aldo Leopold, Loren Eiseley, Rachel Carson, Sri Aurobindo, Mohammed Iqbal, Daisetz Suzuki, and Teilhard de Chardin (SU 15-16).

This may seem fanciful. I would venture that few Christian congregations would welcome prayers for carbon as a key element supporting life. There would need to be some preparation, but why do this at all? Do we really need to rub Christians in the dirt? Berry believes the answer is yes if religion is to provide the psychic energy and guidance needed to move into an ecological age. Berry says, "We need to convert religion to the world, rather than convert the world to religion" (SU, 12). He also says the universe is "the primary subject of incarnation," and he holds up the cosmic Christ teachings of Saint Paul as in Colossians 1:16-17, "In [Christ] all things were created . . . and in him all things hold together" (quoted in CF, 66).

Understanding the new story in Berry's view means that we understand that creation is in peril. The church has never had to deal with this as a central problem before. Without Earth none of the life of the church would have meaning, not teaching the scriptures, not taking social action, not performing pastoral care. "Our rootedness in Earth is itself a condition for any of these things taking place. None of it has any adequate meaning apart from the basic structures and functioning of [Earth]" (CF, 42). We live in the Anthropocene epoch, Christian pastors and leaders must become integral ecologists and creation theologians. Integral ecology means moving beyond anthropocentrism, which means moving beyond the dualism of humans and nature and realizing we are all part of one Earth community and that without the well-being of the whole, every part of Earth community suffers.

Pope Francis's *Laudato Si'* calls for the ecological conversion of the church, indeed of all humanity, and this is what is needed:

The ecological crisis is also a summons to profound interior conversion. It must be said that some committed and prayerful Christians, with the excuse of realism and pragmatism, tend to ridicule expressions of concern for the environment. Others are passive; they choose not to change their habits and thus become inconsistent. So what they all need is an "ecological conversion," whereby the effects of their encounter with Jesus Christ become evident in their relationship with the world around them. Living our vocation to be protectors of God's handiwork is essential to a life of virtue; it is not an optional or a secondary aspect of our Christian experience. (Par. 217)

Berry's influence on religion is evident in Pope Francis's encyclical and in other efforts inspired by his work. In the period 1996-98, Berry's students Mary Evelyn Tucker and John Grim organized and led a series of ten conferences at the Harvard Center for the Study of World Religions on the religions of the world and ecology. Berry participated in these conferences along with 800 other scholars, and ten volumes were published on the ecological teachings of Christianity, Islam, Judaism, Hinduism, Buddhism, Jainism, Confucianism, and Indigenous traditions. The Forum on Religion and Ecology at Yale University grew out of this and it continues to provide pioneering leadership. Religion and ecology is now an established academic field of study with courses being widely taught in the United States and other countries. Sisters Gail Worcelo and Bernadette Bostwick founded the Green Mountain Monastery in Greensboro, Vermont. Religious women have joined together in Sisters of Earth. There are many other examples that reflect not only involvement of religions in environmental issues, but also the larger contextual changes Berry sought.

The religions of the world are undergoing an ecological conversion. They must if the human community is to move into an ecological age. This does not reduce the ability of religions to care for human life, rather it makes such care possible for in our time the human-divine mediation and the inter-human mediation are dependent on the human-Earth mediation.

Reform of Law

When one considers Berry's background as a Catholic priest and a historian of culture, it is somewhat surprising that he gave so much attention to the reform of law, especially in his last years. I can only suppose that as a Catholic he was exposed to the rigor of Catholic social teaching and canonical law, and as a historian he was aware of how social institutions functioned. Or perhaps he saw, as for example David Orr saw, that without government the fundamental changes needed will not occur. Orr wrote in *Down to the Wire*:

Only governments have the power to set the rules for the economy, enforce the law, levy taxes, ensure the fair distribution of income, protect the poor and future generations, cooperate with other nations, negotiate treaties, defend the public interest, and protect the rights of posterity. Errant governments can wage unnecessary wars, squander the national treasure and reputation, make disastrous environmental choices, and deregulate banks and financial institutions, with catastrophic results. In other words, we will rise or fall by what governments do or fail to do. (*Down to the Wire*, 7-8)

Berry expresses his concern about government this way: "Since the continuation of our industrial processes depends directly on the legal system authorizing these processes, we must reconsider our legal system in its deepest foundations" (ET, 109). Regarding the industrial processes he writes, "The industrial project seems determined to assume control, in a few decades, over the natural processes and interrelations that took the Earth billions of years to establish. The consequences are evident in the devastation that follows wherever the industrial establishment has taken control and the environment is ignored" (ET, 112).

His primary legal appeal is that nature must have rights. In his chapter in *Evening Thoughts* on "Legal Conditions for Earth Survival," he states, "The primary supposition here is that the interdependence of every mode of being on every other mode of being requires humans to recognize that every being has rights derived from existence itself. . . . We cannot survive if the conditions of life are not protected" (ET, 109-110). In Appendix 2 of *Evening Thoughts*, he gives "Ten Principles for Jurisprudence Revision." Given that *Evening Thoughts* was published in 2006 when Berry was 90 years old, the impact his principles of jurisdiction have had is astonishing. One impact is that he inspired Cormac Cullinan to write *Wild Law*, in which he expanded on Berry's jurisprudence. The fundamental insight of this book is that Earth has a great law, the laws of nature, and Earth has human law. Human law needs to be coherent with the laws of nature because nature imposes limits and provides guidance for how Earth's life systems work so that life may flourish. Many organizations concerning the rights of nature have come into being since 2006. Ecuador and Colombia have both adopted constitutions that give rights to nature. The Earth Law Center is working on a legal textbook on *Earth Law* and has a contract with a major legal publisher to publish it.

Environmental law was developed to address the negative side effects of industrial development on human health and the environment. The focus of this law has been on

regulating amounts of pollution through permitting and undertaking efforts to remediate past harm. It is not a challenge to industrial development, rather it aims to make that safe. Earth jurisprudence on the other hand recognizes natural limits and the need to maintain prospectively healthy ecosystems and diverse plant and animal populations as well as the well-being of the entire human population not just some parts of it. Earth jurisprudence is grounded in ecology and the health of the whole. It is an embodiment of the new story. Not all Earth jurisprudence stems from Berry, but much of the present activity in Earth law cannot be accounted for without reference to Berry's ideas.

Earth jurisprudence is far from established law, but there are lawyers around the world working on it. Berry calls for nature to have rights by analogy to the rights of humans. There are questions about whether this is an apt analogy, but among people who are working on Earth jurisprudence there is no disagreement on the question whether nature needs to have standing separate from the standing of humans in governmental regulation and in legal cases and controversies. At present, in the eyes of law, nature is primarily private property. If a person owns a parcel of land, the person owns all of nature on that land and may use it or dispose of it in accordance with his or her preferences. There are some restrictions that already apply to the landowner such as restrictions on discharge of dredged or fill material in wetlands under the United States Clean Water act. Earth law would establish common interests in nature and nature's processes beyond those covered by current environmental law. This doesn't mean that every action we take needs to be regulated, but it does mean that we individually and the state representing the common interest need to be ecologically responsible in the Anthropocene epoch and that this needs to be enforced by law.

When we enter the realm of interdependence and the commons, we are in a space outside the realm of independence and private human rights that dominates current law. It is quite an exciting space to enter, though how to navigate it is uncharted. There is resistance to changing the balance of private and public interests, yet there is also openness to it. People know our lives and the lives of our children and grandchildren depend on it.

General Application of the New Story

Religion and law bind complex societies together. They may also tear societies apart. They may strengthen individuals or cripple them. Temples of religion and temples of law (courthouses), at least in the West, often have a similar appearance. Each has its sacred rituals for where matters of life and death are heard. Religion asks, "What shall we honor most?" Law asks, "How shall we conduct ourselves?" Guided by our individual and collective responses to these questions, we must undertake the reform of all institutions based on the new story.

I have used the term Anthropocene epoch in this paper. While widely used, it has varying meanings. I think the meaning given by Clive Hamilton in *Defiant Earth* (see Key Essay 7) is clearest: "The idea of the Anthropocene was conceived by Earth System scientists to capture the very recent rupture in Earth history arising from the impact of human activity on the Earth System as a whole" (*Defiant Earth*, 9). He and others now date the Anthropocene from 1945.

He considers the prospect that we have not entered just a new geological “epoch,” a period of thousands of years, but a new geological “era,” a period of millions of years because of the long lasting effects of recent human activity on Earth (*Defiant Earth*, 4).

Berry was among the first to understand this. His naming of the “terminal Cenozoic era” and the “emerging Ecozoic era” predated the naming of the Anthropocene by nearly a decade. Berry, like those who named the Anthropocene, gave a dire description of the state of Earth, yet Berry’s overall message is one of hope. The Ecozoic era is a vision of what can be if we choose life. The root words of ecozoic mean “house of life.” The Ecozoic era is the promise that life on Earth, including human life, will flourish for millions of years. Yet for Berry there is a caveat—this will happen only if the new story becomes our story, the shared cosmology of Earthlings.

While it is true that human life on Earth will not continue forever—scientists estimates the remaining lifetime of the sun at about five billion years—it is not true (true in a deeper sense than fact) that if human life ends or if life on our planet degrades rapidly that this is just nature taking its course, another step in blind evolution. It will be a loss for our creator, it will be a loss for the perfection of the universe. We humans will have failed and we were not brought into being to fail.

There are many practical things needed for a sustainable future. In terms of Berry’s *new task* given in the last paragraph of the section on “The New Story,” the many practical things concern “establishing an encompassing human community that can relate effectively with the living and nonliving systems of the planet” (ET, 64-65). But these many practical things will not happen if the larger task is not accomplished:

What we are concerned with is the shaping of the human world itself: identifying values, establishing a civilizational discipline, molding a language that can carry our deeper interpretations of human experience, activating a communion with the divine, and providing an educational program in which succeeding generations can achieve an expanding life pattern along with an interpretive vision of reality. (ET, 64-65)

We need a new globalized ecozoic or ecological civilization to replace the current globalized Western industrial civilization. Civilizations are grounded in their cosmology. We need a new cosmology. Neither the current secular scientific cosmology, nor the old spatial/cyclical cosmology will do. We need a new story that enables us to authentically participate in the creation processes of the universe.

We humans are often overwhelmed by the task before us. We wonder what we can do. Tutored by the mechanistic problem-solution approach of modernity, we want to know how to fix this!! We look for an answer. In conversation, when Berry was asked what to do, he would say, “Tell the story.” One doesn’t need to go anywhere to fix the problem. Look around you, you are in the right place now. Tell the story where you are. Trust the process.

Earth is an amazing system of systems of systems of systems. Each part is Earth-referent and all the components are inter-referent among themselves. Each adjustment made in one place is an adjustment in the whole. If the Earth is psychic-spiritual as well as physical, then each adjustment made in your thinking, in your heart, in your prayers, in your liturgies, in your laws, and so on is also an adjustment in the whole. Some adjustments are adaptive, some are not. While the Earth process as a whole is very forgiving, we stand at a crucial turning point. As Berry says elsewhere, "Earth is a one-time endowment. It is subject to irreversible damage in the major patterns of its functioning." (See Foundational Statement 5).

Choose which story you will live out of. Don't expect it to be comfortable to transform how you live and how you work. Don't expect institutional, national, or global change to be easy. Don't expect to get it right the first time. Live the story where you are. Trust the process.

It's a great story.