For some time I have been intrigued by three terms used to designate periods of time having cosmological, geological and cultural significance, namely, omega point, ecozoic era, and anthropocene. They are much more than simply markers of time. A basic question confronts me when I considered each of them: why do they have such persuasive force?

This is the question I take up here as I reflect upon these three terms, namely, Pierre Teilhard de Chardin’s image of omega point, Thomas Berry’s call for an ecozoic era, and the increasing usage of the term anthropocene attributed to the Dutch Nobel-laureate chemist, Paul Crutzen. Each term has distinct meanings for its originator and here I will draw out a few implications.

**Omega Point**

There is no easy entry into Teilhard’s novel, terminology. For example, “Omega Point” is a central idea that continues to puzzle and allure. One reason is that it has an end-time, or eschatological, tone based on the final Greek letter of the alphabet. This would have immediate resonance with Teilhard’s own Christian tradition and its ongoing sense of the return of Christ at the end of time.

For Teilhard, omega has two distinct usages with broader implications: first, omega is definitely a central idea within the evolutionary process but not limited to that. Second, omega is also a transcendent term for the culminating convergence beyond evolution.

Teilhard’s first sense of omega can be described using the Orthodox Christian concept of “divinizing,” i.e. something within the evolutionary process brings everything into the context of the sacred. For Teilhard the interwoven character of all reality as matter-spirit led him to speak of the universe as a “divine milieu.”

Teilhard related the human encounter with omega through terms such as hominization and noosphere. These challenging terms describe a human-spiritualizing dynamic (hominization) and a human sphere of consciousness around and over the Earth (noosphere). Thus, the first usage of omega can be seen as a natural point of convergence, for example, when the subjectivity of humanity converges with the interiority of the cosmos. Teilhard
speaks of this omega point as a social and spiritual maturation of the Earth.

This first usage of omega is as a source of energy within the process without which evolution could not occur. In this regard Teilhard writes in *The Human Phenomenon*: “For the noosphere to be actual and real, the center must be actual and real. To be extremely attractive, omega must already be supremely present” (*HP*, 192). Here Teilhard speaks of a Christ-omega residing within the whole evolutionary process drawing it forward.

Teilhard’s second usage of omega relates to transcendence and pre-existence. Thus, the Alpha beginning of the universe is directly related to the Omega Point as the end of the universe. Likened to the poles of God, this energetic transcendence also acts through the mediation of Christ-Omega. When Teilhard talks about unity, then, he is referring to the two poles of God— alpha and omega—beginning and end. This second usage of omega instantiates, makes fully present, one of Teilhard’s cardinal cosmological principles, namely, union differentiates. That is, the “within” of reality is all of the differentiated consciousnesses within the universe pulled by radial energy. This “within” is omega that ultimately converges in a transcendent Omega Point beyond material evolution.

In his major opus, *The Human Phenomenon* Teilhard uses the image of a pyramidal cone to explain his insight into omega both within the process and without in its final convergence. He writes:

[Evolution] is the pyramid whose summit is supported by its base. This is how it looks along the way. And this is even how Omega is itself discovered by us at the end of the process, insofar as the movement of universal synthesis culminates in it. But notice carefully that in its evolutionary aspect Omega still only shows half of itself. At the same time there is the term of the series, it is also outside the series. It not only crowns but closes the series...we need to do more than say that it emerges from the rise of consciousness: we must add that it has simultaneously already emerged (*HP*, 193).

There is an inspirational charge in Teilhard’s amazing capacity for articulating omega as a unity both within and without evolution. This powerful sense of unity in Teilhard’s thought can, as he emphasizes, differentiate reality. But it also passes through the material-spiritual universe leaving behind remnants of its creative past.

Thus, in the cultural realm, Teilhard described “primitive peoples” as humans through whom the “Spirit of the Earth,” or omega, has evolved. Indigenous peoples are differentiated, but left behind by the Christ-Omega as spirit-matter moves through and beyond them to later civilizations. This sense of progress pervades much of Teilhard’s thought and in some statements maps onto a colonialist reading of the Other as now inferior to the work of building omega. To critique Teilhard in this way acknowledges his limitations while continuing to ponder and to affirm his penetrating insights into the emerging complexity-consciousness of the universe.

The suasive power of Teilhard’s image of omega activates a unity of convergence with which he interprets “world religions” without always acknowledging their particular expressions of that convergence. For example, Teilhard labels religions like Buddhism and Hinduism as “world-denying.” He lacks sufficient awareness of the many ways in which these traditions symbolically embodied the divine in the world of material substance. That is, these religions also have strong world-affirming dimensions. Teilhard could not see that the Christ-Omega he preferred, because of Christianity’s incarnational orientation, was paralleled by differentiated and even incarnational expressions in religions other than Christianity.
Ecozoic Era

Thomas Berry named our emerging human-Earth period as the *ecozoic era*, namely, a period of flourishing human-Earth relations. This aspirational vision flowed from his awareness of the magnitude of the planetary destruction humans have effected by means of industrial, extractive economics. On a geological scale, he understood the Cenozoic period, the last sixty-five million years of the incredible florescence of life on Earth, as coming to an end. This is marked by the sixth extinction spasm that humans are now causing. Such a realization provoked Berry to call for a transformation into a new period of flourishing for the Earth community, which he termed the *ecozoic era*. Berry described it this way:

The magnitude of the ecological crisis of our times is such that we are presently terminating the Cenozoic era of Earth’s development and entering into the Ecozoic phase of the Earth process. The Cenozoic has been the period of the expansion of life in the full brilliance of its expression, but this expansion of the life systems of Earth is being terminated. This will affect all our human institutions and professions that were appropriate to the Cenozoic era. They must now undergo a transformation if they are to be integral with the new period in the historical evolution of the planet. The transformation required is from an anthropocentric norm of reality and value to biocentric and geocentric norms. This will affect every aspect of our human thought and action. It will affect language, religion, morality, economics, education, science, technology and medicine.

In our discussion of sacred community, we need to understand that in all our activities the Earth is primary, the human is derivative. The Earth is our primary community. Indeed, all particular modes of Earthly being exist by virtue of their role within this community (“Earth as Sacred Community,” in *Evening Thoughts*: 43).

For Berry the Cenozoic period provided the biological context for human self-reflexive consciousness to emerge. The richness of life evident in this period has given rise to our capacity for wonder, beauty, and intimacy. In presenting the term *ecozoic* Berry calls for a new awareness and reciprocity on the part of humans so they can be present to the planet in ways that are mutually enhancing. Yet, Berry did not bracket the term, *ecozoic*, in an anthropocentric container.

This shift to the *ecozoic* is resonant with what contemporary geologists are identifying as our current age, namely, the “Anthropocene.” This is the period in which human-induced change has become the defining characteristic of this era. Thomas Berry understood that the transformation needed now is a turn from an anthropocentric fixation to more biocentric and ecocentric concerns. The full resilience of Earth’s ecosystems is beyond our knowledge. Nonetheless, life as we know it is being severely curtailed by human industrial processes. The short-term material benefits to the human largely distract us from realizing the consequences of what we are doing to the larger Earth community.

Even religions themselves are threatened as we diminish our experience of the divine in nature. While many religions have a profound sense of the divine within the cosmos, this experience of the universe often lacked an understanding of ecological relatedness. Berry reflects with Teilhard on the human story as integral with the universe from the beginning. He realized that this divine reality is the story within all differentiated reality. In this sense Berry affirms both process and differentiated beings as integral to evolution. The dynamic presence of the universe to itself is reflected in all consciousness, especially that of humans. That presence infuses every dimension of the galactic story. Cosmic presence is at the heart of the Earth story interrelating it to everything else. Berry’s ecological thought is inherently cosmological. Perfection is simultaneously in the whole and that whole is expressed in each particular being and event of the universe.
Thomas realizes that human impacts on landscapes and biodiversity are not adequately described on a human historical scale. More importantly, he observes the geological scale of human industrial extractive economies. He understands these shifts as presenting profound challenges to the survival of our current petroleum-based civilization. The transitions to the ecozoic era require reconnecting at deep cosmological dimensions of our being. Berry proposes that the ecozoic era would emerge as we re-discover the story of our evolutionary journey along with our ecological consciousness and cosmological rituals, such as those transmitted by Indigenous Peoples. His concern was for the community of life on Earth, as he writes:

Humans as a planetary presence are currently closing down the Cenozoic era of Earth history and entering the Ecozoic era. This geological shift is marked by the fact that the sixth extinction spasm is occurring, and it is of our own making. This is the largest transition in Earth history since the end of the dinosaurs 65 million years ago. The survival of other species and the vitality of human affairs will depend on our capacity to adapt to this transition. Above all, this entry into the Ecozoic era is the entry into the period of the Earth community with a new sense of its sacred dimension. Just as traditional societies entered into the sacred liturgy of the natural world expressed in the sequence of cosmological transformations throughout the season of the year, so now we are in the process of rediscovering the sacred dimension of the great Earth community in its stupendous unfolding over these past billions of years (“Earth as Sacred Community,” in Evening Thoughts: 43, 45).

**Anthropocene**

The term, *anthropocene*, has a multilayered history with Soviet scientists using the term in the 1960s. The biologist, Eugene Stoermer, proposed it in the 1970s, and some geologists began to use it. But major persuasive attention came after a public address by Nobel-winner Paul Crutzen. Then, in an article in 2000 Crutzen and Stoermer emphasized humanity’s impact on the whole Earth as marking a geological age. They used the term *anthropocene* for this current geological epoch. In regard to its start, they said:

To assign a more specific date to the onset of the ‘anthropocene’ seems somewhat arbitrary, but we propose the latter part of the 18th century, although we are aware that alternative proposals can be made (some may even want to include the entire holocene). However, we choose this date because, during the past two centuries, the global effects of human activities have become clearly noticeable. This is the period when data retrieved from glacial ice cores show the beginning of a growth in the atmospheric concentrations of several ‘greenhouse gases’, in particular CO2 and CH4 [methane]. Such a starting date also coincides with James Watt’s invention of the steam engine in 1784” (“The Anthropocene,” in Global Change Newsletter 41: 17-18).

Thus, Crutzen and Stoermer also focused on the industrial period as marking human activities that increasingly affected the whole planet.

Interestingly, some scientists, such as David Sloan Wilson, have seen a connection between the geological epoch, *anthropocene*, based on the dominant impact of humans on the planet and the thought of Pierre Teilhard de Chardin. In this sense he describes noosphere, namely, human global consciousness, as a manifestation of Omega Point (See “Evolution and the Anthropocene: Science, Religion, and the Human Future,” Smithsonian Museum, May 22, 2016).

The use of the term *anthropocene* represents a remarkable effort on the part of the geological community to provide language for reflection on the magnitude of human impacts on the Earth. Admittedly, the International Union of Geological Sciences, the professional organization that
recognizes names for the ages of the Earth, has yet to affirm shifting from the term Holocene for the current period of the Earth from 11,700 years ago after the last ice ages.

Thus, anthropocene draws our attention to the amounts of methane and CO2 that humans have put into the atmosphere, as well as nuclear isotopes that now appear all over the Earth from the testing of weapons, biodiversity extinction due to habitat loss, and ocean and soil degradation. We are aware that the lists of environmental pollution and degradation are lengthy and depressing. Is this what gives the term anthropocene its suasive force, namely, truth-telling?

Yet, are there also limits embedded within this term anthropocene? The philosopher, Kathleen Dean Moore, and others have argued:

Not the ‘Anthropocene.’ That name completely muddles the metaphor. We don’t name new epochs after the destructive force that ended the epoch that came before….the very notion that humanoids have become the ‘Deciders,’ the shapers of the Earth, makes the Earth guffaw in swirls of violence. If we are shaping anything at all, we are shaping climate chaos, and chaos in the ocean and on the land. If there is a voice in that whirlwind, it is not the voice of man (Earth Island Journal, Spring 2013).

This objection to naming an era after the perpetrator of the degradation is paralleled by an economic critique.

In Jason Moore’s work, The Capitalocene: On the Nature and Origins of our Ecological Crisis, he identifies the central role of financial capital in the industrial era. “The alternative to the “Age of Man” (the Anthropocene) is the “Age of Capital” (the Capitalocene). In this, capitalism is understood as a world-ecology, joining the accumulation of capital, the pursuit of power, and the co-production of nature in dialectical unity.” The human impact on the planet is restituted, in his argument, not in a human holism but in non-linear relations of wealth and power that both consume and produce an ersatz nature.

A Final Thought

While omega and ecozoic have aspirational dimensions in their intention and meaning, anthropocene, might appear more neutral and simply descriptive on the surface. But all of these terms engage and persuade us toward positions of self-understanding in the face of larger realities that confront us. They can determine constructive orientations and ultimately offer values on our journeys. These brief reflections do not move toward final conclusions or closure, but they may open space for interpretive and integral narratives. They may birth new ways of understanding the stories that move us.

The Evolving Picture of Teilhard: The Documentary of the Teilhard Project

A handsome and erudite gentleman in his 90s is speaking comfortably to the camera and to a small gathering of fascinated interrogators about his early memories of the famous Pierre Teilhard de Chardin. The speaker, Henri du Passage, is one of Teilhard’s last living relatives who knew him personally. Biographers and scholars had visited the family home over the years, more to speak with Henri’s late father-in-law, Joseph, who was Teilhard’s brother. But none have come with the ambitious plan of making Teilhard’s story available in a multimedia format to a large American audience.

Henri du Passage, long a widower, is an impressive figure who has written his own book on his extraordinary family history, including his wartime experiences, having been wounded and returned to the field in Germany to end WWII. But those of us gathered here are most interested in what Teilhard looked like, sounded like, what he did during those rare times when he was at home in Auvergne, and how he may have felt about the events of the time. How did Teilhard’s brilliant ideas and mystical vision manifest in his familiar contemporary setting when, for example, he accompanied his
nephew in the truck to bring the farm animals to market? What was it like when Teilhard said Mass or conducted his retreat at Les Moulins? How did the highly respected and traditional Teilhard family respond to Teilhard’s unorthodox views and the punishing treatment by the Church? Msr du Passage talks about these things in an engaging interview on camera with Frank Frost in preparation for the upcoming film, “The Evolution of Teilhard de Chardin.”

Years ago, when I moved back to Paris (bitten by the Teilhard spirit, having been introduced to Teilhard by an Irish priest living in a dilapidated Spanish mission parish in Texas), I quickly acquired much of Teilhard’s work in the original that became suddenly available to me. I attached myself to the French Teilhard Association and have been connected ever since. When I found out that a relative with the blood of Teilhard in her veins was planning to attend one of our meetings, my eagerness must have been apparent as my introduction was quickly facilitated by a mutual friend. Teilhard’s grand-niece, Marie (daughter of Henri), bears a shocking resemblance to Teilhard. Tall and slim with a Teilhardian frame and profile and a penetrating gaze, you have no difficulty imagining the familial connection. But even more, one perceives the joy, depth, humility and simplicity of soul that emerges from a lifetime of Teilhardian influence and, might we say, Teilhardian genes?

Marie was formed by years of immersion in Teilhard’s milieu, raised in the Auvergnat environment, living in the family estates where the collections of rocks and plants started by Teilhard’s father Emmanuel, with young Pierre by his side, are ever present. Marie, with a background in science and a lifetime delving into the immense family collections of artifacts and personal letters shared between family members, knows well what Teilhard experienced. Now that her five children are grown, she has assumed a more active leadership role, devoting the enormous effort required to assemble and communicate Teilhard’s work more clearly to the outside world, which will benefit committed Teilhardians and the future legacy of Teilhard’s work through re-publication of books, essays, and thousands of letters. A brilliant artist, one of Marie’s many exquisite sculptures includes one of Teilhard with his chisel at work in the field. Along with her father, she sat down with Frank to share some of the Teilhard family history and put Teilhard’s experiences into perspective, including his strong relationships with close women friends, and how he was shaped by his early environment and his indomitable loyalty to the Catholic Church. Marie offers an informative and directly personal account of Teilhard’s experiences that serve as invaluable commentary for the film.

Frank and Mary Frost have spent years studying Teilhard’s life and work, creating connections between many whose lives have been changed through Teilhard’s influence. These include scholars, academics, theologians, and church leaders, and the families of those related not only to Teilhard himself, but also to the many friends and colleagues of Teilhard. The composite created from archival and personal accounts offers a living portrait of a saint whose reach has thus far been limited by language, both the untranslated native tongue and the sometimes esoteric style of Teilhard’s writing. As a further obstacle, the aura of unorthodoxy that hovered over his presence during his lifetime may have worked against a wide-scale appreciation, despite the flurry of attention cast in his direction in the 1960s.

Over time, serious devotees of Teilhard and religious scholars, both Catholic and not, have diligently worked to interpret Teilhard’s writings and

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1The French Teilhard Association meets several times a year in Paris for conferences on various topics related to Teilhard. Several regional Teilhard associations also hold conferences. Within the associations are also small study groups that meet usually at a member’s home to discuss in depth one of Teilhard’s writings. Members of the French Association have created “Teilhard Monde”, an international association of Teilhardiens led by Marie Anne Roger which distributes regular e-mail updates on Teilhard happenings. The association may be accessed at http://www.teilhard.fr/teilhard_monde.
spread his vision, no doubt with an enthusiasm and loyalty that manifests from love. For those whose interest has been triggered, the work of many fine scholars is readily available. Still, Teilhard has never managed to become accessible to the mainstream. Those of us who know Teilhard are enthusiastic that he has something extremely valuable to offer the world today. But first the door must be opened. For those who would not normally encounter Teilhard, especially in a way that is relevant to their own lives, a well-told story of his dramatic personal life (world-class scientist, exiled religious, indefatigable visionary) in a documentary film can create a meeting point. Film allows viewers the most accessible format to experience Teilhard’s vision. Connection is made when we can feel what he felt, see what he saw, and feel drawn forward to understand what we have consumed and use it both to bring us together and to more clearly perceive the meaning of our own individual stories.

For more information about the documentary go to www.teilhardproject.com.

Frank and Mary Frost are independent film producers who have successfully created and distributed several films with religious themes, including the captivating Bernardin, a documentary film on the life of the beloved late Cardinal from Chicago. Tracy Higgins is a retired military officer and federal investigator. Upon retirement, she became a registered nurse and was awarded a PhD from Columbia University Medical Center.

Teilhard:
Fused with Earth from the Womb
A childhood lock of burning hair
singed your soul, led you to explore rock ash,
continental shelves, oceans of matter lured by spirit.

As soldier, priest, stretcher-bearer
witnessing the ebb and flow of life
you weighed the balance of life and death.

Banished to China and East Asia
you observed the divine presence
gleaming at the heart of matter.

Earth became mentor and altar.
There in the mystical milieu of friendship
you penetrated the depths of chaste love.

Weaving a vision on the cosmic loom
you beheld the patterned threads of complexity,
convergence, and the rise of consciousness

that the evolutionary process
impels us to understand
as the christic draws us all ahead.
Forbidden to publish your cosmological writings
you were called to relate this epic story
preserved by the women woven into your life.

How did you survive the loneliness of Manhattan as
your heart yearned for the volcanic hills of Auvergne?

Evolution transformed your inner sacredness
until you crossed the final boundary
your death-communion finally realized.
No three days of mourning for you.

Easter death. Monday burial. Shadowed behind
recycling bins,
your grave tended by many anonymous hands
holds its visitors to that cosmic story.

Home culminates in ecstatic convergence of
energy love with Omega. Your fibers now
woven into the Cosmic Christ

while we still unravel the tapestry of who
you were and what you taught us. Help us to
harness for God the energies of love.

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Harold J. Morowitz 1927-2016
Originally published in the New York Times,
April 1, 2016

Harold J. Morowitz, a boundlessly curious biophysicist who tackled mind-boggling enigmas ranging from the origin of life to the thermodynamics of pizza, died on March 22 in Falls Church, Va. He was 88. The cause was sepsis, his son Noah said.

Trained as a physicist and a philosopher, Professor Morowitz was inspired in his scholarly speculation by the writings of Pierre Teilhard de Chardin, the mid-20th-century Jesuit paleontologist who developed the idea of the Omega Point, his term for a level of spiritual consciousness and material complexity toward which he believed the universe was evolving.

Professor Morowitz’s intellectual scope extended beyond the laboratory. He was a consultant to NASA on experiments conducted remotely on the surface of Mars and inside Biosphere 2, the world’s largest enclosed ecosystem.

He was best known for applying thermodynamic theory to biology, exploring how “the energy that flows through a system acts to organize that system.” In his book “Energy Flow in Biology” (1968), Professor Morowitz examined how natural energy, in forms like lightning and heat, flowed through the antediluvian ocean’s primordial soup to create ecological systems that constituted life.

“All of biological process begins with the capture of solar photons and terminates with the flow of heat to the environment,” he wrote in 1970 in “Entropy for Biologists: An Introduction to Thermodynamics.” “Biology is at its roots a profoundly thermodynamic subject.”

Professor Morowitz argued that his theory on energy flow suggested that life, in some form, probably exists elsewhere in the universe.

“Harold Morowitz is one of the world’s seminal thinkers about the origin of life within the context of the physics of our universe,” said James L. Olds, assistant director for the Directorate for Biological Sciences of the National Science Foundation. “Insomuch as we have stars with elements that go through life and death cycles of their own,” Dr. Olds said, “Harold would say those physics and chemistry inevitably produce life.”

Still, Professor Morowitz was more confident dismissing dogma, like creationism or intelligent design, than specifying how life originated on Earth. In 1983, he testified in McLean v. Arkansas, a case that successfully challenged a state law mandating the teaching of “creation science” in Arkansas public schools. Professor Morowitz described creation science as “somewhat deceptive” and said its proponents “play rather fast and loose with the use of the second law of thermodynamics to indicate that the natural origin of life would not be possible.”

Generally, that law states that any natural process involving heat and temperature in an isolated system progresses in the direction of increasing disorder, or entropy, of the system. But Professor Morowitz stressed that the Earth is not an isolated system.

“Energy can create order,” Dr. Olds said, “and life, if anything, is order.”

Professor Morowitz compared the antediluvian primordial soup to a common condiment. In his book “Mayonnaise and the Origin of Life: Thoughts of Minds and Molecules” (1985), he said the marriage of oil and vinegar wrought by egg yolk was a model for compounds that favor opposites, like fat at one end and water at the other. Those compounds form the boundaries of cells and tie molecules together, mirroring the self-replicating units of life.

Harold Joseph Morowitz was born on Dec. 4, 1927, in Poughkeepsie, N.Y., to Philip Morowitz, a newspaper and magazine distributor, and the former Anna Levine. He received a bachelor of science degree in physics and philosophy, a master's in
physics and a doctorate in biophysics (when he was 23), all from Yale University. In addition to his son Noah, he is survived by his wife, the former Lucille Stein; three other sons, Eli, Joshua and Zachary; nine grandchildren; and two sisters, Iris Wiley and Bernice Regunberg.

After working as a physicist for the National Bureau of Standards and the National Heart Institute, Professor Morowitz taught molecular biophysics and biochemistry at Yale from 1955 to 1987 (he also served as the master of Pierson College), then biology and natural philosophy at George Mason University in Fairfax, Va.

He was the founding director of the Krasnow Institute for Advanced Study at George Mason, the chairman emeritus of the science board of the Santa Fe Institute, founding editor of the journal Complexity, and the author or co-author of 19 books.

He could explore vast topics. A book he published in 2002 is titled “The Emergence of Everything: How the World Became Complex.” And he could deprecate a United States Supreme Court opinion in a patent case that denied any distinction between animate and inanimate matter as “the ultimate in reducing life to physics.” Virtually no topic was too trivial for him to tease a more profound meaning from. He studied the effect of a gravity-free environment in space on how fast a fresh pizza gets cold.

Once, when he received a birthday card that assessed a human body’s raw materials at only 97 cents, he recalculated the cost based on synthesized ingredients from a biochemical company catalog and re-evaluated his worth at more than $6 million.

“Information is much more expensive than matter,” he wrote in 1976. “We are led cent by dollar from a lowly pile of common materials to a grand philosophical conclusion, the infinite preciousness of every person.”

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**Introductory Remarks for the Inaugural Jeanie Graustein Lecture on Environmental Justice**

By Jeanie Graustein

On, April 16, the inaugural Jeanie Graustein Lecture on Environmental Justice took place at St. Thomas More Chapel and Catholic Center at Yale, honoring her lifelong passion and service in the effort of Catholic social and environmental justice. Christiana Peppard, Assistant Professor of Theology at Fordham University and author of Just Water: Theology, Ethics and the Global Water Crisis, was the keynote speaker. What follows are Jeanie Graustein’s opening remarks.

Thank you all for being part of this occasion. Thanks especially to Father Bob Beloin, Mary Tyrrell, Peter Ellis, Mary Evelyn Tucker, John Grim, Kim Stoner and Joanna Dafoe, and to all who worked to put it together and who will clean up afterwards. I am honored and delighted.

I entered Yale Divinity School in midlife, after working as a docent at Peabody museum and doing paleontological fieldwork in Montana, where I excavated 70 million-year-old fossil plants and dinosaur teeth. My long fascination with the deep time of Earth history led me to the questions: “Did not all these past creatures, plants and landscapes give glory to God, before humans appeared? What is God’s desire for this ongoing creation of complexity and life in this vast universe? What is our true role in the community of life?”

I had an interest in the dialog of science and religion, but had no clue what I might do with my degree.

Fortunately, in 1994, I was invited by the Archdiocese of Hartford’s Office of Urban Affairs—now the Office for Catholic Social Justice Ministry—to do a student internship. My charge then was to create resources for parishes based on recent statements by Pope John Paul II, who said that care of God’s creation was a moral issue, and a response by the U.S. Conference of Catholic Bishops. This pastoral letter, *Renewing the Earth*, set care of the
environment within a framework of Catholic Social Teaching, and explored the many connections to protecting human life and the common good by working for Environmental Justice. Subsequently, Pope Benedict made frequent statements, particularly on climate change. And now we have Pope Francis’ encyclical, *Laudato Si’*, urging us to care for our Common Home by heeding the cries of the Earth and the cries of the poor, by making changes both individual and systemic.

What does Environmental Justice encompass? The EPA says that “Environmental justice is the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies.” But it’s clearer what constitutes environmental in-justice, which is the disproportionate impact of pollution and environmental degradation on low income communities and people of color.

I had a vivid introduction to this in New Orleans some years ago. With the local Catholic Charities staff, I visited a low-income African American neighborhood of small homes, where many had suffered from cancer. In the midst of this community was an abandoned factory with leaking metal drums whose contents washed around the streets when it rained. People took some of the drums, emptied them and cut them in half for barbecues. Eventually, water in a better off neighborhood looked contaminated and authorities traced the source back to the poor neighborhood—the factory had manufactured chemical components of Agent Orange defoliant during the Viet Nam war. Dust from the homes and yards revealed massive contamination that had exposed everyone to toxic materials. The neighborhood became a Superfund site.

This is a particularly egregious example, but all over the country and around the world, the impact of air and water pollution from industries, mines, agriculture, waste disposal, and lack of infrastructure falls most heavily on poor and minority communities, on children and those weakened by hunger and disease. Those most affected and harmed often have no power to change such situations, nor any voice to demand justice. Those who have contributed little in the way of greenhouse gases or benefited from energy resources often suffer first from the effects of global climate change.

**What would an environmentally just world look like?**

In a world with environmental justice:

…no children would die from polluted water, nor ingest lead in the tap water in their homes.

…no babies will be born “pre-polluted” from exposure to lead, PCBs, pesticides, flame retardants, and other common chemicals in their mother’s wombs.

…low income communities of color will no longer be the favored location for waste dumping, incinerators or industrial facilities using hazardous chemicals.

…the people of small island nations and coastal cities will not suffer from rising sea level and intense storms, becoming climate refugees.

In a world with environmental justice:

…subsistence farmers in developing nations will not face drought, floods and displacement from climate change.

…indigenous peoples and small farmers will not be killed and their land seized by powerful interests, nor will their lands and water be polluted by mining and oil development.

…millions of women and children will not suffer the health effects of smoke from cooking fires.

…mountain glaciers in Asia and South America will continue to supply water to a billion people.

…coral reefs and the ocean food web will not be destroyed by rising temperatures and ocean acidification.
...diverse creatures of the skies, seas, forests, deserts, and soils will flourish as the extinction of species thru habitat destruction and overharvesting slows.

God’s justice is much broader than human ideas of justice so we need to broaden our ideas and responses. We need to be vocal and effective advocates for environmental justice in our communities, state and nation, so a more just and sustainable Earth community is left to our children and grandchildren.

Our church, and people of all faith traditions, have been responding to these challenges. In this Archdiocese, with colleagues at the Office for Catholic Social Justice Ministry and people of many parishes, we held a climate change conference and inspired parishes to initiate energy saving projects. With other organizations, we sponsored Earth Day Riverfront events and a Toxic Tour of waste facilities in Hartford. Our Center Edge Parish Education Project gathered parishes by watersheds to examine how land use, urban sprawl, poverty, and clean air and water are interrelated. We worked with Hispanic parishes on ways to protect children and communities from toxic hazards. We advocated for Connecticut's first Environmental Justice law.

This work continues with our Bishop Peter Rosazza Social Justice Conference. “Rooted in Faith: Caring for our Common Home” in June. I hope you will attend to hear the keynote speaker, Franciscan sister Damien Marie Savino, who is both an environmental scientist and professor of theology. She and I worked on a project in the Naugatuck Valley in 1997 around cleanup and reuse of contaminated brownfield industrial sites.

Many resources for reflection and action in response to Pope Francis’ encyclical are available from Office for Catholic Social Justice Ministry. I urge you to plug into the Catholic Climate Covenant, Franciscan Action Network and many other sources of action and advocacy.

It has been a gift to be engaged in this work and there is so much we need to do. It has been said that we won’t protect what we don’t know and love. In this astonishing season of life bursting out around us, let’s go spend time immersed in this miracle of Spring renewal that gives glory to God and joy and hope to our hearts. Give thanks and praise, as St. Francis did, for flowers and growth, for birds and clean water.

I look forward to hearing from our keynote speaker, Christiana Peppard, and our breakout session leaders, who will help us expand our imaginations and inspire us to act.

The great Jesuit paleontologist and mystic Teilhard de Chardin said, “The world, being a thought of God, cannot end up in failure, cannot misfire. Everything is fulfilled in Christ. The importance of the person is essential; each person should work according to the deepest current in his being, in his soul, and should thus unite himself with God’s creative act and be possessed by the immense joy of creation.”

May it be so! Thank you.

Free Yale University Online Classes in “Cosmology and Ecology”

In September Mary Evelyn Tucker and John Grim will teach three six-week online courses through Yale. These will be featured as a cluster of courses (a “specialization”) under the theme of “Cosmology and Ecology.” This will include two courses on Journey of the Universe and a course on the Worldview of Thomas Berry. Each course can be taken independently.

These are MOOCS (Massive Open Online Courses) available on Coursera and free to anyone, anywhere on the planet. These will be the first MOOC specialization for Yale and the first MOOCs for the Yale School of Forestry and Environmental
Studies. More details will follow when the release date is known.

Course Descriptions:
Journey of the Universe: The Unfolding of Life

*Journey of the Universe* weaves together the discoveries of the evolutionary sciences together with cosmological understandings found in the world’s cultural traditions. The courses draw on the Emmy-award winning film, *Journey of the Universe*, the book from Yale University Press, and a series of 20 interviews with scientists and environmentalists, titled Journey Conversations.

*Journey* explores cosmic evolution as a creative process based on connection, interdependence, and emergence. It examines a range of dynamic interactions in the unfolding of galaxies, Earth, life, and human communities. It investigates ways in which we understand evolutionary processes and the implications for humans and our ecological future.

The *Journey* courses are based on a new integration that is emerging from the dialogue of the sciences and humanities. *Journey* tells the story of evolution as an epic narrative, rather than as a series of facts separated by scientific disciplines. This changes our perception so that we begin to see ourselves as an integral part of this narrative. By situating ourselves within this story we can better appreciate the complexity and beauty of processes such as self-organizing dynamics, natural selection, emergence, symbiosis, and co-evolution. As we discover these intricate processes of evolution, we awaken to the beauty and complexity of our natural environment at this critical juncture in our planetary history.

One course will draw on the *Journey of the Universe* film and book written by Brian Thomas Swimme and Mary Evelyn Tucker. The other course will draw on the *Journey Conversations* with scientists, historians, and environmentalists.

See: [www.journeyoftheuniverse.org](http://www.journeyoftheuniverse.org)

The Worldview of Thomas Berry: The Flourishing of the Earth Community

Thomas Berry (1914-2009) was a historian of world religions and an early voice awakening moral sensibilities to the environmental crisis.

He is known for articulating a “new story” of the universe that explores the implications of the evolutionary sciences and cultural traditions for creating a flourishing future. This course investigates Berry’s life and thought in relation to the *Journey of the Universe* project. It draws on his books, articles, and recorded lectures to examine such ideas as: the New Story, the Great Work, and the emerging Ecozoic era. The course explores Berry’s insights into cosmology as a context for locating the human in a dynamic unfolding universe and thus participating in the creative work of our times. In particular, we will examine Berry’s reflections on renewal and reform in the areas of ecology, economics, education, spirituality, and the arts.

See: [www.thomasberry.org](http://www.thomasberry.org)

“Second International Seminar on Religion, Culture and Environment” in Tehran

We are happy to let you know that Mary Evelyn Tucker and John Grim participated in the “Second International Seminar on Religion, Culture and Environment,” which was held April 23-24 in Tehran, Islamic Republic of Iran. The *Journey of the Universe* trailer was shown with Persian subtitles at the beginning and end of the conference. For the seminar agenda, visit: [http://tinyurl.com/jh4d3v6](http://tinyurl.com/jh4d3v6)

To read a discussion note prepared for this seminar entitled “Environment, Religion and Culture in the Context of the 2030 Agenda for Sustainable Development,” visit: [http://tinyurl.com/jc64h5s](http://tinyurl.com/jc64h5s)

This conference follows on two conferences on religion and ecology in Tehran in 2001 and 2005 that Mary Evelyn and John also participated in, sponsored by the United Nations Environment Programme (UNEP) and the Iranian government.
At the conclusion of the conference an award was presented by the Iranian Vice President Ebtekar to Mary Evelyn Tucker in recognition of the work that she and John Grim have done in world religions and ecology.

**Notable Books**


Bede Benjamin Bidlack’s *In Good Company: The Body and Divinization in Pierre Teilhard de Chardin, SJ and Daoist Xiao Yingsou* is the most recent scholarly treatment of Teilhard as a subject for comparative theology. This work, comparing thinkers from different traditions and centuries apart, first presents their context and thought separately to avoid “the possibility of conflating or obscuring their theologies (5). Bidlack then puts the two in conversation in an effort to “destabilize Teilhard’s category of body to expand his theology (6).” In particular, a core thesis of the book is that Xiao Yingsou’s work offers a more nuanced set of categories for the varying sorts of physicality in varied sorts of bodies such that the different levels of Teilhard’s thought between the individual and the Cosmic Christ can be more carefully parsed. This work is both creative and successful in its explication of Teilhard using non-Christian categories and it captures something of the spirit of Teilhardian convergence in its effort to bring two traditions together without compromising their individual identities. Bidlack is aware of this element of his work when he writes, “By proposing a mutually relational model of body, soul, and cosmos, the present work seeks to motivate a healing of relationships between God, cosmos, others, and self (150).” If his work is a herald for similar studies to come, then the future is indeed bright for Teilhard studies.


“If you read through these essays, if you mull them over, if you find them taking on a life of their own in your consciousness, you too will have entered into the central creative endeavor of our moment in time....”

—Brian Thomas Swimme, from the Foreword

**Journey of the Universe** is a book, a film, and a conversation series by Brian Thomas Swimme and Mary Evelyn Tucker that offers a rich unfolding of “the universe story”—a moving narrative of cosmic evolution from the origins of the cosmos to the present. This volume explores Christian responses to *Journey of the Universe* and its implications for the contemporary environmental crisis. Beginning with recent statements by Pope Francis and the Ecumenical Patriarch Bartholomew, the book draws on contributions by leading theologians, ethicists, and activists.

**Testimonials:**

“What a collection—some of the greatest voices in the emergent Christian consideration of the
environment, arranged to provide powerful echoes.. . This is a volume that will make a big difference!“
—Bill McKibben, author, The Comforting
Whirlwind: God, Job, and the Scale of Creation

“This book shows brilliantly the diversity of
Christian reflection on Journey of the Universe,
which enhances and deepens the unifying movement
articulated by Pope Francis. May we all join!”
—John Cobb, Center for Process Studies,
Claremont Graduate School, Emeritus

“Brian Swimme and Mary Evelyn Tucker’s
film and book, The Journey of the Universe, has
revolutionized our vision of the cosmos. In this new
volume, the product of a major conference at Yale,
thirty-one contemporary authors comment on the
meaning of that vision.”
—Rosemary Radford Ruether, The Claremont
School of Theology

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We welcome suggestions of relevant ideas, books, news, events and contributions of articles for this newsletter. The editor is Tara Trapani. The Teilhard Perspective newsletter along with the biannual Teilhard Studies pamphlet and Annual Meeting notices are available through membership. Please contact us at: American Teilhard Association, c/o John Grim, 29 Spoke Drive, Woodbridge, CT 06525. Annual membership is $35.

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American Teilhard Association, Thomas Berry, and Journey of the Universe Websites
At the new ATA site www.teilharddechardin.org can be found a Biography, List of Writings, Pictures and Quotes, Life Timeline, ATA Events, Teilhard Studies with first page, recent full Teilhard Perspectives, Membership info, Links, and a Brian Thomas Swimme interview on Teilhard.


A new site www.journeyoftheuniverse.org introduces this title film, book and educational series by Brian Thomas Swimme, Mary Evelyn Tucker, John Grim, and an advisory board to carry forward in multimedia fashion the inspiration of Pierre Teilhard and Thomas Berry.

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