

**Teilhard de Chardin
Kathleen Duffy, SSJ, PhD
Chestnut Hill College
Presented at Georgetown University
Thomas Berry and the Great Work
October 31, 2019**

During this conference, we celebrate Thomas Berry's remarkable achievements and express gratitude to him and to all who are keeping his message alive and vibrant, especially Mary Evelyn Tucker, John Grim, and Brian Swimme for making *The Journey of the Universe*, available to the world. At the same time, we also take these few moments to remember Pierre Teilhard de Chardin, whose religious essays, particularly his major opus *The Human Phenomenon*, served as a primary inspiration for Berry's most famous work, *The Universe Story*, written in collaboration with Brian Swimme.

Thomas Berry has had a significant impact on my work. As far back as 1980, we invited him to address a large gathering of sisters and associates of my congregation, the Sisters of St. Joseph of Philadelphia. At the time, he challenged the scientists among us to tell the story of the universe. This was some time before he and Brian had published *The Universe Story*. A recent PhD in Physics at the time, I was attempting to discover my unique contribution to the ongoing story, looking for ways to use my degree for the life of the world. I joined peace activists and environmental groups and spent 8 years teaching physics in the Philippines, hopefully doing good work, but always looking for a more integrated way of acting in the world. I found the idea of telling the story inviting, and so I began with small steps, focusing initially on Earth spirituality.

The year after I returned to Chestnut Hill College, my artist friend, S. Margie Thompson, who for many years had been creating art inspired by evolutionary themes, joined the faculty.

Together, we decided to respond to Thomas' challenge and developed our own version of the story, modeled somewhat on the then recently-published Swimme/Berry *Universe Story*, but from our own perspective. We illustrated our script, using slides of Margie's paintings and other images, and eventually transferred the slides to PowerPoint. We also had the sound recorded professionally with a particularly effective musical setting.

One of our goals was to have our viewers become familiar not only with the facts of this amazing story but also with the impact it could have on our spiritual lives. We presented lectures, workshops, as well as a weeklong retreat based on our presentation. We have shown our 30-minute version, "The Universe Story: Our Story," many hundreds of times both alone and together, to students, to congregations of sisters and associates, in parishes of several denominations, at conferences, at retreat houses, and even at one diocesan office. At one conference, Thomas Berry viewed our version and seemed to like it very much. This became our contribution to the "Great Work," a phrase we find in Teilhard's essay "Cosmic Life," written while he served as a stretcher-bearer in World War I and one that Thomas popularized over the years, applying it particularly to care for Earth and efforts to stem the environmental crisis that besets us today.

In "Cosmic Life," Teilhard tells us, "the true summons of the cosmos is a call consciously to share in the great work that goes on within it" (W, 32). For Teilhard, the evolutionary process demands of those of us gifted with the ability to reflect on our actions, much more than assent to evolution's certainty or simply sentiments of awe and wonder, although these are certainly welcome outcomes. Rather, since evolution influences every aspect of our lives, it should also inspire us to participate in the ongoing Great Work of the cosmos.

For Teilhard, details of the evolutionary process had implications for aspects of the theology and spirituality of his day, with which he was quite uncomfortable. Not only did their theories lack the dynamism of evolution. Based on a matter/spirit dualism, they actually dampened efforts to work for change: matter is evil; spirit is good; flee the world; work to attain heaven and nurture a personal spirituality away from worldly activity. Teilhard thought long and hard about this problem and eventually found a link between the evolutionary story and the theology of Incarnation, a connection that satisfied both his heart and his mind. Two strands that had nourished his early spirituality, Communion with God and Communion with Earth, merged for him into a single approach to the world: “(2) Communion with God through Earth.” He shares the steps of the process he used to arrive at this synthesis of Evolution and Incarnation in his essay, “How I Believe.”

During the first phase of this process, Teilhard tried, as best he could, to free himself from any theological beliefs about the world so that he could discover his deepest intuition about the way things are. He descended into himself, back through his ancestors and into the early universe to discover what holds everything together. The descent, like any form of analysis, left him with disconnected fragments—swarms of elementary particles without structure. So instead, he reversed his direction and embarked on an ascent through the eons of time. Like any synthesis, this journey helped him understand how these disconnected fragments, found at the beginning, had come together.

In fact, he noticed that something profound has been happening in the cosmos. He called this general pattern “Creative Union.” At every evolutionary stage, a bonding process exists, so that when things come together and bond, without losing either their identity or their integrity, they create matter that is more complex and capable of more than the original entities. Structures

that are more complex emerge gradually from the union of simpler structures and produce novel forms.

Examples abound. Hydrogen fuses into helium; nuclei unite with electrons to form atoms; atoms form molecules. For example, this water molecule has properties very different from its constituent atoms, hydrogen and oxygen; the force of gravity continues to draw together and hold billions of stars in its grasp as these galaxies whirl in spirals. What is significant about Creative Union is that individual elements become more when they unite; in fact, Matter cannot exist without interacting. Given its 13.8 billion-year success at complexification, Teilhard knew that Creative Union would continue to generate novel forms. His faith in the evolutionary process was so profound that, as a result of his inner journey, he knew for certain that if he ever lost his faith in God, he would always believe in evolution. This was his fundamental belief, one that he would never deny.

In the second phase of his process, Teilhard took a more intimate look at the details of evolution only to realize an aspect and parallel process that he had missed—evolution's inside story. He noted that over time, both matter and spirit complexify not as separate entities but as two aspects of a single phenomenon. This implied that consciousness has been present within cosmic Matter throughout its slow but gradual advance toward complexity. Contemplation of this reality lead him to set forth the law of Complexity-Consciousness: as matter becomes more complex, it becomes capable of generating and sustaining more developed forms of consciousness; as consciousness increases, it encourages the further complexification of matter. This principle guides the cosmic becoming. Matter and Spirit, indivisible and mutually effective, engage in a process of mutual complexification.

We find examples in the physical world. A molecule has more degrees of freedom and more potential for union than the atoms that compose it. Now it can bond with other molecules, and when it does, it again becomes something more—a crystal, a polymer, a cell, each with more degrees of freedom and thus more potential for union.

When starlings swarm, they exhibit something called flock intelligence. As the swarm expands and contracts, soars up and dives down, it acts as a single organism but without a single leader. Researchers have found that interaction among the birds as a whole creates this cohesive movement and that this graceful movement happens because the birds follow two rules: first, each bird stays equally distant from its seven nearest neighbors. This actually constricts the flock so that it tends to fly as a whole in the same general direction. And, second, birds at the edge of the flock tend to bunch closer together. Since the distance between birds is not fixed, the shape of the flock is flexible and can expand and contract as needed.

Swarm behavior is a creative and effective strategy that enhances starling survival. A pressing need, escape from a predator, drives the starlings to respond and to interact coherently. Each individual bird accepts a goal larger than itself and by doing so encourages the flock to cooperate in a highly organized way. Greater consciousness emerges from the flock as a whole. Let's contemplate the beauty and flexibility of this starling swarm. (VIDEO—"The Swan") Note that the choice of an activity focused on union leads the birds as a whole to greater consciousness.

During the third phase of his contemplative journey, Teilhard considered the cosmos as a whole. Plotting its ever-complexifying fragments in four dimensions—both space and time—and attempting to extrapolate into the future, he senses a direction. As the processes of Creative Union and Complexity-Consciousness continue to propel matter/spirit forward, the phase plot

begins to resemble a four-dimensional tapestry, one whose knots have become ever more complex, conscious, and capable of ever-greater novelty. This convinces him that the universe will continue to complexify and to become ever more conscious.

Up to this point, Teilhard has avoided referring to theological descriptions of reality. However, in the fourth phase, he searches scripture for helpful connections. John describes the Incarnation in terms of the Word plunging into matter at the beginning. Paul speaks of the Cosmic Christ alluring creation toward union with the Divine. Viewing incarnation through the lenses of scripture and evolution, Teilhard found the Divine Presence both immanent and transcendent. The processes of Incarnation and Evolution became dynamic and complementary phases of a single movement, forming together a Cosmic-Christic stream that leads to ever-growing unity and ultimately toward total communion with the Divine.

Another characteristic of the evolutionary process as a whole is the pattern of death/resurrection that Christians call the Paschal Mystery, a pattern found even in cosmic and Earth processes. Although a volcanic eruption seems purely destructive, after a number of years, the soil at the bottom of the volcano becomes wonderfully enriched—a joy for future farmers. Again, when a massive star explodes as a supernova, rather than being wasted, the material from the dying star that is spewed out into space is eventually gathered gravitationally to form new stars, richer in elements than the original star.

Often what seems like chaos is instead a wakeup call to action. I am reminded of the playful way that Swimme and Berry talk about one particularly critical wakeup call in Earth's story. According to Brian, before the eukaryotic cell emerged, prokaryotic cells were already engaging in photosynthesis and breathing out so much oxygen that Earth was in danger of a great conflagration. However, the evolutionary movement towards greater consciousness propelled the

emergence of eukaryotic cells that breathe oxygen and, not only averted a disaster, but also contributed to Earth's balance and diversity.

Throughout his life, Teilhard applied this triad of Creative Union, Complexity-Consciousness, and Death-Resurrection to his life. Instead of rebelling by tearing himself away from his Church and his Jesuit Order, he lived out the principle of Creative Union by remaining within the institutions and by attempting to reform them from the inside. And although he was hampered on all sides by a promise not to publish his religious ideas, he did find ways to share them with many. Most of his friends and colleagues knew what he was up to and though few understood the entirety of what he was trying to say, they appreciated his efforts. Some even helped him to revise the way he was articulating his thought so that perhaps publication might be possible. He understood the slowness of the evolutionary process. He would be comforted today to see that many more people take evolution seriously, not simply as a scientific theory but as a theory that has implications for the inner life and for the life of the world.

Teilhard also valued the pattern of Complexity-Consciousness, desiring always to experience the enhanced creativity that is available when life and thought are shared. The resonance he experienced with students and young seminarians, who flocked to his lectures in Paris because of the freshness of his thought, encouraged him to continue to develop a synthesis that was not only vibrant but also vitally necessary for his time.

Finally, Teilhard's mystical relationship with the Cosmic Christ supported him. Throughout his life, he suffered so deeply that the paschal mystery became a vivid reality for him: his exile from Paris, the rejection of his thought by the Church, difficult living and working conditions—none of this was too much of a burden for him to bear since he did not bear it alone.

He knew his work would survive his short life, that eventually others would understand it, enhance it, and drive it forward.

Teilhard's times were not easy. And neither are ours. Yet, Teilhard believed that we are made for these times, that our 13.8-billion year journey has prepared us to do the Great Work needed for this moment in history. In fact, the world is waiting for catalysts to ignite the fire that will move humanity, beyond its present state, to a state that is more alive, more conscious, more loving. Teilhard believes that we are up for the challenge! And hopefully, so do we!