Thomas Berry explores the meaning of work from the standpoint of human civilization responding to the call of the universe, replacing use and exploitation of nature with the wonder, rapport, and intimacy so important to the psychic balance of the developing human and natural harmony of life on Earth. The Great Work is defined as the work of thousands upon thousands of humans who recognize how to be present to the universe and reverse the tragic misuse of our natural environment.

I’m highly honored to be invited to spend some time with you this morning and also honored that a group of people such as you have dedicated yourselves to the children. I have a certain awe of children. In this difficult period of human history I’ve always wanted to assist them to be themselves and to shape a world that would be more filled with joy than our world seems to be.

That’s why I dedicated the book The Great Work to the children—but to all the children, and that is the key to the book: the dedication to all the children. To the children who swim beneath the waves of the sea, to the children who live in the soils of the earth, to the children of the trees, to the children of the flowers in the meadows and the crickets in the fields, to the children that fly with the wings of the wind, to the human children, too; to all the children, because none of the children are going to succeed in the future without the others.

The Earth venture, the life venture, is a single venture. If the other living forms don’t succeed we cannot succeed in the deepest realm of our being, in our minds, in our souls. There’s no success without the trees in all their majesty, the mountains and the rivers, the birds, the flowers, the butterflies, the bees. Without all this, we’re nothing. We don’t exist. The created world is a single community, a community that’s all woven together in a single piece. The universe is granted the grace of being what might be called a self-composing symphony, or a self-shaping process. This endowment of inner powers of self-formation is the way the world has been created from the beginning.

When St. Thomas, the great thinker of the Medieval period, was asked why there are so many different things in the world, he replied that “because the divine could not image itself forth in any single being, the divine created the great diversity of things so that the perfections lacking to one would be supplied by the others and that all the universe together would participate in and manifest the divine more than any single being whatsoever.” He also says that “the order of the universe is the ultimate and noblest perfection in things.” The great mistake, or the great difficulty, of civilization, particularly of modern western civilization, is to isolate human affairs from the larger Earth community.

Any adequate discussion of western civilization must begin with the moment when western civilization began to think of the world out there as having a discontinuity from themselves. This discontinuity is, in a certain sense, the price that we pay for the Biblical communication, because this revelation brought a more immediate experience of the divine reality through messages spoken by the prophets. Biblical revelation was a move from the primacy of the cosmological order to the primacy of the historical order in our perception of the divine. That’s why the Bible as we have it, both the Hebrew and the Christian Bible, has a distinctive place in the scriptures of the world.

It’s the historical realism that distinguishes the Bible. Other scriptures also bring communication with the world of the divine, but the Bible is distinguished by the historical realism which tells us that the creation took place at an identifiable moment in
time. The Biblical world and the modern scientific world agree on this one very great thing, the origin of the universe in a moment of time that can be measured numerically in relation to our present. Of all the mythic stories of beginnings, only in those of the west, I believe, do we have the beginning in numbered, historical time. For this agreement to exist between the Biblical world and the scientific world is something quite significant. Possibly it is only out of our western world that our evolutionary story of the universe could have evolved.

Even so, it’s difficult to hold together the human historical and the cosmological evolutionary dimensions of the universe. Just let me talk a moment about the child in this context, because the cosmos or the universe is what the child awakens to. The child does not awaken to history; the child awakens to the universe, and that’s very important.

The child is in history and will develop its ideas of history in our civilization and our historical order, but the basic and earliest awakening is to the universe.

A few weeks ago someone sent me a book of poetry written for children and asked me to write a comment; I wrote a comment, and then I wrote a little verse myself. It’s a brief little verse, but perhaps it says something worthwhile. It’s so simple you only have to hear it once and you know it. I would love for Maria Montessori and myself to sit down and talk over the ideas expressed here.

The child awakens to a universe.
The mind of the child to a world of wonder,
Imagination, to a world of beauty,
Emotions, to a world of intimacy.
It takes a universe to make a child
Both in outer form and inner spirit.
It takes a universe to educate a child.
It takes a universe to fulfill a child,
And the first obligation of one generation
In relation to the succeeding generation
Is to bring these two together
So that the universe is fulfilled in the child
And the child is fulfilled in the universe.

This verse brings out something that’s so utterly, so absolutely important, particularly in the twenty-first century, the historical period in which our children are going to live. It brings out the element of wonder first. Wonder is almost the first of our conscious experiences. It is said to be the primary experience of paradise. Our mention of the “Glory” that we behold in Paradise is described sometimes as “Wonder with Praise.” Wonder is frequently described simply as that awe we feel at the mystery of things, because a finite mind can never really comprehend the universe before us. We are entranced by the dawn. We go to the overwhelming mystery of things to be healed both in mind and body, to the mountains, the sea, to where we can listen to the song of the birds or see the stars at night. Rachel Carson recognized the full significance of this basic experience when she wrote that fascinating book, A Sense of Wonder.

The capacity to wonder is the deep experience of life and its grandeur. It’s the highest experience we can have. It’s the moment when a person, or a thing, or a mountain, or a tree, or whatever it is, overwhelms us with delight. It’s an ecstatic moment, you might say. When we see a butterfly dance...
its way over a meadow, it’s a kind of ecstatic joy. Watch children. They wade in a stream or sit in a mud puddle; it’s such a great experience. They like to chase a butterfly. It’s kind of an ecstatic moment. Or simply to run over a field after being cooped up for a while. Let a two- or three- or four-year-old child lose, and they just run into the distance, to the universe, to the larger self of their own being. As Brian Swimme has said, “The human being within the universe, is a sounding board within a musical instrument” (Swimme & Berry 40).

Wonder is especially important in our times, because our world has given up wonder for use as our primary experience of the universe. Use might be considered the primary orientation of American civilization toward the universe it inhabits, especially to the North American continent. Use goes with personal freedom and rights to property. To be real, a thing must be useful. Anything non-useful is wasted, is meaningless. Education has to be useful. If we study the history of education in this country, we find that in the colonial period and on up through the beginning of our constitutional period, education was thought of as useful. Science was especially valued because it was useful. When the American Philosophical Society was formed in 1743 with Benjamin Franklin, it was dedicated to useful knowledge.

There was an overlay of concern for what we call the classics or the humanities, but there was a greater concern for useful knowledge, which through the years has become increasingly in control of our entire life program. That’s why we are destroying the biosystems of the planet, why all the beauty created in the Cenozoic period has got to be used—even if use brings about the devastation of the entire planet. If something is not used it’s wasted. For anything beyond use, there was religion, the Bible especially. Education, at one time in this country, was considered primarily as a training needed for a person to be able to read the Bible.

This sense of use has led to a kind of pathological ruin of this continent in its forests, its soils, its rivers and streams, its wildlife. We have lost 95% of our glorious trees. The white pines in the northeast were six feet in diameter. Of the great forests of the West—the Douglas firs, the redwoods, the ponderosa pines—95% have been cut. All on the assumption that if they can be used for even minimal human benefit, then do it, no matter what the majesty of the forest, or the wonder, or the habitat for wildlife, no matter what the evil. We might wonder if the whole scientific venture and the whole economic venture of our times really knows what they’re doing.

When we created the automobile, we didn’t have the slightest idea what an automobile was. To this day, I’m not sure that we’re willing to admit the destructive dimension of the automobile, the automobile and all the transformations it would bring about in the lives of people or the consequences it would bring about on the land, even though these consequences are so obvious. The automobile has made our air and water dirty. It has paved over vast areas of fertile soil for parking lots. It has been ruinous to health. It has been one of the main forces leading to corporate control over the political life of our society.

We seldom consider just how all this affects our way of life, the education of our children, or the fulfillment of our interior needs for something beyond the merely material experiences of life. What is so important, I think, for children, is for them to learn
to live deeply in the abiding wonder and beauty and intimacy presented to them throughout the natural world. It is this world that awakens them to their own interior space, their soul space, their psychic space. We constantly live in this interior space and are not aware of it. All our sense faculties function in a trans-material manner, even though the physical experience is necessary for the experience of any of our senses. The physical and the psychic are two dimensions of the one experience, just as the music and physical vibrations of the violin strings are such that neither can exist separately when the music is being played.

Children need to be taught how to listen to music, how to make music, how to appreciate the poetry in the natural world, how to compose poetry, how to see the world, how to delight in any of their physical activities, running or skipping or jumping rope. Take sight for example. You may say that scientists think they can explain or have explained sight by studying the vibrations of light and the synapses of the nerves and all that and are putting it all in an equation. But they have not explained sight although they have explained one dimension of the process.

Sight is trans-physical or trans-material. It is why, when they are seen, the tree and the person, the flower and the person, begin to live in the same psychic space. That is the intimacy that we call knowledge. The tree that we see and the mind that sees experience a certain identity, what Brian Swimme indicates in the passage that has just been quoted above. Material things cannot exist in the same physical space, yet any number of realities can exist in the same psychic space. It’s the difference between what you might call the psychic world and the material world. The psychic dimension of the child communes with the soul-space in the surrounding world. Knowledge is a presence of two beings in a single psychic space.

One of the things I say most often is that “the universe is a communion of subjects, not a collection of objects.” Yet in the phenomenal world
everything is both object and subject. As objects they are used; as subjects they are communed with. When the spiritual subject uses things as objects, it is always with a transforming intimacy. That is why we willingly serve each other and, in a way, say to each other, “I will serve you; I will feed, clothe, and shelter you; I will heal you; I will do any number of things for you; I will dedicate life to you. But don’t simply use me in this sense of devastating the finer parts of what I want to give you, because I’m here that we may be a presence to each other. We give to each other wonder and splendor and fulfillment. I’m here for intimacy. All of the other comes with it, but only so long as we experience communion and intimate presence to each other. As long as we have that, then we can give our lives to each other, but only so long as it’s honored.”

So with both the human and the natural worlds. The natural world tells us of these trans-material experiences. These are the things that the children need to learn, and at great depth. This sense of psychic presence is what children need to develop, this intimacy with both the human and the natural world. To lose either the natural or the human world is to lose everything.

One of the reasons why we can never live in space is that only the Earth can nourish our inner psychic space. Even with all our space exploits we’ve never been off the Earth. It’s not really possible, in my view, for humans to exist in space or off the Earth for even a minimal period of time. People say we went to the moon. Well, in some sense, we went on a piece of Earth to the moon. But we didn’t go to the moon just ourselves without the Earth. That’s why, in my mind, it’s absurd for us to think that after using up the Earth we can exist off in space somewhere or on some other planet. The main reason is not any physical reason. It’s an inner reason, a psychic reason.

We came into being at a moment when the world was supremely beautiful, in the late Cenozoic period, when the planet had achieved its high moment of wonder and beauty and intimacy. Flowers had come into being. We couldn’t exist without flowers for two reasons: Physically we couldn’t exist because the flowers brought us concentrated protein that didn’t exist before. But also the flowers and all the wonders of the natural world brought us a mind experience. If we lived on the moon, our sense of the divine would reflect the dullness of the lunar landscape. Our imagination would be as desolate as the moon. Undoubtedly, there would be something there, but it would not be adequate, or anything like what we have here.

That’s why the child needs what Rachel Carson was talking about when she noted the need that children have for an older person to assist in their experience of the world around them. This companionship is, I think, one of the things that we need to pay attention to, also for ourselves. Just as the child needs the older person, the older person needs the child. We have at least as much need for children, in some ways maybe more need of them, to lead us into a world of wonder and wisdom and beauty and intimacy. So what we both need is our presence to each other, helping each other to appreciate the wonders that give life its fulfillment.

Now, in the twenty-first century, we’re in a moment of rethinking our world and what we are doing with all the magnificence presented to us by the world around us. The extinction of living species that we are bringing about is now on a scale that has not existed for sixty-five million years. When people of the stature of Peter Raven and Edward O. Wilson and Norman Myers tell us that the extinction going on now has not been equaled for sixty-five million years, that’s a powerful indictment of what’s happening, and it must not, it cannot continue. Because the further we go in this regard, the more desolate
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The planet Earth will be, not only desolate physically but mentally. Life will be less fulfilling, even less possible. The truly human quality of life will progressively diminish.

Sometimes I reflect on the moment of my birth and the twentieth century, during which my life has been lived. I was born in the year 1914, the beginning of the First World War. General Motors and the other automobile corporations had just come into existence in 1908, six years previously. The roads were just being paved. There were fewer than two billion people on the planet. In this country there were ninety million. The roads were being paved, and that’s what determined the direction that my thought has taken since I was eight or nine years old.

The real development of the twentieth century began in the 1880s, you might say. It really began when Standard Oil Company, with John Davidson Rockefeller, was formed, in 1870. But then in the 1880s, in the period after the Civil War, everything came together: the corporations, the petroleum, the science and technology, and this massive industrialism that threw us into the twentieth century. Since then, education has become a kind of job training for the industrial-commercial world. This new world of science and technology was dedicated to the task of turning the planet into products, products to be used and then discarded as useless junk. We passed from an ever-renewing organic economy to a non-renewing industrial economy. Progress—industrial, commercial, money-making Progress—this has been the supreme objective sought in this century.

But what we have done we need, in the twenty-first century, to undo, mitigate in some way, or deal with it more effectively than we have dealt with it so far. Just after saying that, I would say also that the new world is already begun. We can indeed be hopeful. Some extraordinary people are living at the present time, people who would draw us back to the land, back to a more integral relationship with the larger Earth-community to which we belong.

In the 1880s, we moved from an organic, ever-renewing, land-based economy to a nonrenewing, extractive, industrial economy. That’s a one-way road. You only go down that road for a certain number of years. Then exhaustion sets in, exhaustion of the basic resources upon which industrialism depends; for these resources are nonrenewable. Once gone they are gone forever. The easily available petroleum, all that there ever was or ever will be, is already half used up. The remainder, in the shale, is too expensive to dig out of the earth and process into usable form.

But in an organic economy, the child learns how to interact with things so as to promote an ever-renewing world of beauty and wonder and abundance rather than more destruction. When a person learns about soil and plants and flowers and trees and insects and animals and fish in the sea, that person learns life and death. These provide forever both our physical needs and our soul needs. Those three primordial experiences that I mention so frequently—the wonder, the beauty, and the intimacy—these are the fulfilling experiences that give life its fulfillment.

Here I would like to mention some of the people who are providing the guidance we need. Wes
Jackson with his Land Institute in Selina, Kansas, is one. There in the lower western plains he is doing the research needed into the basic plants that will supply our food for the indefinite future. There are others too; others such as Fred Kirschenmann, in the northern plains, who is establishing a pattern of large-scale organic agriculture (see his essay in *For all Generations: Making World Agriculture More Sustainable*, edited by J. Patrick Madden, OM Publications, 1997). Then in the world of economics there are the remarkable studies being carried out by Herman Daly, Robert Costanza, and Richard Norgaard, who have founded the International Society for Ecological Economics. This work in the revision of economics was inspired by the work of Nicholas Georgescu-Roegen, whose book *The Entropy Law and the Economic Process* (iUniverse.com Publishers, 1999) first appeared in 1971.

In energy sources for the future, we will depend on the renewable energy available from the sun, the wind, and the rivers, sources identified years ago by Amory Lovins in his book, *Soft Energy Paths: Toward a Durable Peace* (Friends of the Earth International, 1977). More recently he, with Paul Hawken, has written *Natural Capitalism: Creating the Next Industrial Revolution* (Back Bay Books, 2000), an outline of modifications in our present technologies that will considerably assist in establishing human technologies more coherent with the technologies of nature.

There are others, such as Sister Miriam Therese McGillis, who has established a viable rapport with nature in her program for community-supported agriculture at Genesis Farm. Richard Register of Ecocity Builders has established a program for the architecture of cities in the future, cities that would be self-sustaining in their food supply and in their energy sources, cities that would function without the automobile or with a severe reduction in the need for the automobile. Travel within the city would be by bicycle or by walking. People would live closer to where they would be working.
There would also be a rethinking of the inner life of mind and soul through programs featuring Henry Thoreau, John Muir, Loren Eiseley, Wallace Stegner, David Brower, Joanna Macey. They might develop their knowledge of the evolutionary story of the universe through such writers as Brian Swimme in *The Universe Story*.

Children need to learn early in life, possibly through gardening, that the first law of economics is to preserve the integral economy of the land since the human economy is a subsystem of the Earth’s economy. So in medicine: Human health is a subsystem of Earth health. We cannot have well humans on a sick planet. We cannot have a sustainable human economy in a nonsustainable Earth economy. And so we can go through everything, every aspect of life. We will find that in every aspect of our lives, the human system is a subsystem of the Earth system.

Another way of thinking about this relationship is to consider the individual self as the small self, related to the Earth or to the universe as the Great Self. When Maria Montessori speaks of children finding their center at the center of the universe, this is basically what she is saying. Only in this context can children feel secure in their various studies.

It’s why children need to learn about “the small self and the Great Self,” because, as scientists tell us all the time, the universe as it is, is necessary for every being in the universe to be what it is in the reality of contemporary existence. We are who we are because the universe is as it is. To explain this creating of humans we have to say that we have a Great Self and a small self, and we’re reaching for our Great Self. That’s why the child, when the child delights in flowers, is reaching for its Great Self. When we plunge into a river or a lake to experience the refreshing waters, that’s our Great Self. When we look at the stars, that’s a self-presence, that’s what I call intimacy, and the child experiences the intimacy, and the child needs to learn to follow its attractions in this regard and not let its limited self be seduced away.

**Reference**


**Resources for Sustainability**

Genesis Farm  
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(908) 362-6735  
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www.genesisfarm.org

International Society for Ecological Economics  
www.isecoeco.org

The Land Institute  
2440 E. Water Well Road  
Salina, KS 67401  
(785) 823-5376  
fax (785) 823-8728  
www.landinstitute.org

*Thomas Berry (1914-2009) founded the History of Religions Program at Fordham University and the Riverdale Center of Religious Research. He is author of *The Dream of the Earth* (Sierra Club Books, 1990) and coauthor, with Brian Swimme, of *The Universe Story: A Celebration of the Unfolding of the Cosmos* (Harper San Francisco, 1994).