

# Holistic Connections Between Ecology and Character

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Abstract

Essentially, ecological principles reflect being rooted in comprehensive compassion and timely discernment; or, the virtuous basis of superior character, for specific and general conflict-resolution. Based on ideal human development then, ecology represents nature, acting through humanity to heal and balance the impact of less than virtuous human behaviors. The intention of this essay then is to deepen and strengthen knowledge and feeling for universal interconnectedness; thereby, our capacities to be and act for good can further embrace sustainable practices, for peaceful life on Earth.

## Acknowledgements

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I offer this prayer,

It is as a little child that I ask,  
Without the intelligence to do my tasks,  
Yet learning month by month and day by day,  
I shall hold fast,  
To gleams of knowledge bright,  
Help me to bear my heavy burdens right,  
And show me how to walk in wisdom's way  
Because I will see with great clarity causes and effects,  
I will complete the six steps at the right time,  
And mount toward heaven  
At the right time  
As though on six dragons.  
Dragon Waters teach me the way of the Dao.

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## Introduction

Heaven is my father and Earth is my mother, and even such a small creature as I finds an intimate place in their midst.

Therefore that which fills the universe I regard as my body and that which directs the universe I consider my nature.

All people are my brothers and sisters, and all things are my companions...  
Wealth, honor, blessing, and benefits are meant for the enrichment of my life, while poverty, humble station, and sorrow are meant to help me to fulfillment.  
In life I follow and serve Heaven and Earth. In death I will be at peace. (Chan, 1973. p. 497-498)

Progressively increasing dedication to health seems to be the root and stem of my life. Why this is so I cannot say for sure, but perhaps as my life mirrors life at large, health sustains my human potentials, just as human potentials for health sustain my hope at large. Like so many other backgrounds like my own, I grew up in a cultural environment where profound concern for health was not predominantly featured. Typical of so many others, my home life was dysfunctional, or as my mother would say as my father watched television and ignored us, "It's alright, most families are dysfunctional, aren't they?" Without exemplars of psychological or emotional health at home, I made due with my particular strengths to compensate for what was lacking.

My journey to health necessarily required two components to occur; first, me as a reflective individual, and second to that, whatever happened to be the subject of my reflections. Internally self-reflective, and externally oriented to care, careful examination requires assessing things in contrast to ideals, in order to cultivate health. Through this complementary process of reflection and concern for ideal human development, I continued to grow.

I grew up with no distinctly recognized cultural heritage from my parents. My father remains a non-practicing Jew and my mother, though non-Jewish, has always seemed to admire but never study Jewish culture. I learned no particular tradition at home other than caring and kindness, largely from my mother. A high emphasis on those values was seldom made at school or in the community at large. Outside my yard, it seemed that only rewards and marks of status were praised, whether grades or Mercedes. Oddly then, in contrast to no particular pattern in my background, my luck is to be a disciplined Humanist; deeply oriented to being reflective. Without formal encouragement behind me, from out of the blue then, I began to be captivated by thoughts concerning what it meant to be human. In this way, I have come to know all humans as my brothers and sisters, like Clifford Mayes wrote,

The natural process of individuation brings to birth a consciousness of human community precisely because it makes us aware of the unconscious, which unites and is common to all mankind. Individuation is *at-one-ment* with oneself and at the same time with humanity. (2005. p. 90)

With my head still in the stars as my heart circles the globe, I remain the same.

In my subjective journey, my studies in mysticism and shamanism have been objectively complimented by studies in nutrition, psychology, philosophy and ecology. Based on positive early life experiences, these areas were naturally attractive subjects, involving love of nature, people, critical thinking, and heart-felt appreciation for life experiences in general. During my first 18 years I intuitively groped for health and lived it out as best I could. In that way, at age 19 as I walked down Commonwealth Avenue in Boston, I had my first mystical experience, perhaps primed by reading Fritjof Capra's The Tao of Physics. In high school, in the background to that day, I was very good in physics. Yet, once the initial thrill of solving problems wore off, I found the cold, mechanical procedures of breaking down controlled experiences into principles to

recreate the initial experience somehow empty. Dissatisfied, my interest drifted towards the writings of mystics, with my first exposures found in the writings of Lao Tzu, D.T. Suzuki, Ram Dass, and Thich Nhat Hanh. While far from anything I had been exposed to at that point in my life, I keenly felt a core affinity with such writings. Despite many nuances and details that were then certainly not available for me to understand, I did get something, and it was extraordinary.

At age 19, it was an extraordinary something that came flaring forth into my life experience, as I walked down Commonwealth Avenue from the Boston University campus in the direction of the Boston Commons. It was as though I experienced truth and life as an “all is one” experience; whereby, the connection between everything was no longer simply an abstraction. With a brilliant sense of cosmic unity, as my abstract constructs melded with everyday life, I was struck by the realization that the truth behind any experience is that the truth is undivided and whole.

Like any adolescent I often spoke very emotionally, using particular phrases to represent how I thought life should be lived; like, “being real” is one I particularly remember. In retrospect, after my amazing walk on Commonwealth Avenue, the phrase to remember thereafter became, “how do I live by the truth that everything is one?” In this way, like a mystic, my identity forms a relationship between practical and mystical experiences.

Years later, I read and identified with the observation that

Scientists surprise our common conceptions about the nature of reality. Concretely, we’re told that we are as solid as we seem to be, but atomically we’re not as solid as we seem. Like the spiritual perspective that states that God is ‘in the world, but not of the world,’ both science and religion are heard to say that what we know is at once the (w)hole® and not the (w)hole® of what life is and is not. Theories about principles support the development of facts; and symbolic language holds potential to complement experience with (w)holy® possibilities. With understanding gained through deep contemplation, sages teach that profound love leads us to care for facts and faiths in harmony. Therefore, in dealing with contrast: As we learn to see and sense the Way of the (W)holy®, love will find no division too broad to bridge. (Richards, 1999. P. 7)

Growing up in suburban New Jersey at a time brimming with technological change, unyielding progress for personal advancement appeared to be society's credo. And, to that end, any means seemed justifiable. Now, as we know, “progress by any means possible” is threatening the collapse of a majority of the planet’s life systems. Paul Hawken in Blessed Unrest states that in the future we will view the post-modern era through the lenses of "social justice and humanity's relationship to the environment." (2007. p. 22) While not abnormal for cultures to fail in these areas, our current situation is particularly remiss. For more than thirty years we have had scientific understanding that central features of Western culture are unsustainable; from peak oil, to water use, to greenhouse gases, our way of life cannot be indefinitely sustained, and “progress” at this rate is bound to bring about one of the greatest extinctions the planet has ever seen.

History provides us plenty of examples of cultural extinctions due to extravagance and ignore-ance of the relationship between people and people, and people and the environment. Jared Diamond, scientist and anthropologist, details this well in Collapse: How Societies Choose to Fail or Succeed (2005). The major difference between any previous culture and ours is our ability to bring about the extinction of a majority of life on the planet, while contaminating the earth, water, and air, as we jam nature’s restorative and rejuvenating properties for centuries before it can correct our misguided ways, all within the next one hundred years. In response to our collectively misguided ways, this thesis culminates my journey thus far to reconcile the interconnectedness of everything with the destructive tendencies of modern society. Looking back, as I entered graduate school I asked myself, “what does the world need most through

education?” My answer was and is “education to nurture profound maturity, for the sake of global sanity”.

I am happy to know that I am not the first nor will I be the last to attempt such a thing. I am not alone in the company of ancient knowledge and influences such as those from classical China in the I Ching, or Chinese Book of Changes. Written by gifted personalities, the book acts as an oracle for mythic success in human development, practically cultivated by means of superior character. Consistent with that tradition, **this essay addresses ecological thinking as a process and extension of character development.**

David Orr expressed our dire need for this orientation when he said, “the modern world suffers from moral amnesia, the vague awareness of a deficiency of virtue that we can no longer describe.” (Orr, 2004. P. 60) And, that “virtue...was founded on a kind of moral ecology...an awareness of mutual [inter]dependence.” (Orr, 2004. P. 62)

Two complementary characteristics of Ecology as a process of character development feature:

1. Emotional sensitivity and intellectual curiosity oriented to expansive love, compassion, respect, and responsibility, in contrast to disharmonious tendencies to neglect, apathy, and disavowal of personal responsibility for collective well being.
2. Conceptual focus on cyclic powers in human development, exhibited in habits, customs, and traditions concerning the presence or absence of effective self-reflection, self-examination, research, inquiry, dialogue, etc.

These two characteristics are ultimately reflected as timely or untimely action, which is then subject to be practiced as a pattern again. It is like a particular form of participatory action research that we are so fond of in progressive education. Whether in education, social action, or

everyday life, what is important is to consider these fundamental tendencies as the bedrock of creative or destructive change. Through repeated performance of positive character development, individuals actualize cultural principles and tendencies to peace and ecological health.

## Definitions

Biophilia: love of life or living systems.

Character: the mental and moral qualities distinctive to an individual; the distinctive nature of something.

Discuss: talk or write about (a topic) in detail, taking into account different ideas and opinions.

Dynamic: (of a process or system) characterized by constant change, activity or progress.

Ecology: the branch of biology that deals with the relations of organisms to one another and their physical surroundings.

Environment: the surroundings or conditions in which a person, animal, or plant lives or operates.

Equanimity: mental calmness, composure, and evenness of temper, esp. in a difficult situation.

Examine: inspect in detail to determine their nature or condition

Explore: travel in or through (an unfamiliar territory or area) in order to learn about or familiarize oneself with it.

Health: *traditional* definition-the state of being free from illness or injury. *Suggested* definition-a measure of the strength of creative response to potential or actual detrimental impacts and movement towards sustainability, equanimity, balance, and wholesome integration

Higher/Superior Character: making timely self-adjustments to be responsible within the most comprehensive/full-range of information available to be understood

Holistic: characterized by comprehension of the parts of something as intimately interconnected and explicable only by reference to the whole.

Human Ecology: the relationship between humans, human societies, and their natural, social, and created environments.

Human Nature: the general psychological characteristics, feelings, and behavioral traits of humankind, regarded as shared by all humans.

Integral: necessary to make a whole complete; essential or fundamental

Integrated: combine (one thing) with another so that they become a whole.

Interdependent: (of two or more things) contingent on or determined by each other.

Moral: concerned with the principles of right and wrong behavior and the goodness or badness of human character.

Mystical: spiritually allegorical or symbolic; transcending human understanding.

Natural Resources: materials or substances such as minerals, forests, water, and fertile land that occur in nature and can be used for economic gain.

Nature: the phenomenon of the physical world collectively, including plants, animals, the landscape, and other features and products of the earth, *as opposed to humans or human creations*. *Alternate definition*-living thing's vital functions or needs.

Principle: a fundamental quality or attribute determining the nature of something; an essence.

Soul: the primary organizing, sustaining and guiding principle of a thing.

Sustainable: conserving an ecological balance by avoiding depletion of natural resources.

System: a set of connected things or parts forming a complex whole.

Whole: a thing that is complete in itself.

Virtue: behavior showing high moral standards. A good or useful quality of a thing.

Ecology, Sensitivity, and Human Development

“That great nature in which we rest,  
     that Unity, that Over-Soul,  
 Is an Immensity not possessed  
     and that cannot be possessed.  
 The animal eye sees, with wonderful  
     accuracy,  
     sharp outlines and colored surfaces.  
 To a more earnest vision,  
     outlines and surfaces  
     become transparent;  
 Causes and spirits  
     are seen through them.  
 The wise silence,  
     the universal beauty,  
 To which every part and particle  
     is equally related,  
 Is the tide of being which floats us  
     into the secret of nature;  
 And we stand before  
     the secret of the world.”  
 -Ralph Waldo Emerson

Felt in myriad ways, we all experience sensitivity to some degree or another; from subtle body changes in response external conditions to emotional changes in reaction to injustice, loss, or the sight of a flower, the range of sensitivity is boundless. That everyone has consciously had experiences of being affected by some external stimulus goes without question. And, just as well, how adequately we may individually “see” or think to care about the environment is rooted in how unique instances of sensitivity may lead us to identify with life as a whole. As John Burroughs makes clear in the following passage, though we may be unable to tell anyone to be sensitive, the art of being so is improved through practice.

The science of anything may be taught or acquired by study, the art of it comes by practice or inspiration. The art of seeing things is not something that may be conveyed in rules and precepts; it is a matter vital in the eye and ear, yea, in the mind and soul, of

which these are the organs. I have as little hope of being able to tell the reader how to see things as I would in trying to tell him how to fall in love or enjoy his dinner. Either he does or does not, and that is about all there is of it. (McKibben ed., 2008. P. 146)

Generatively speaking, Nature's creativity is primal to all our relationships, and the primacy of Nature in our emotions was first evoked during the forgotten prehistory of mankind. Whether as deep shadows or brilliant sun, childhood experiences that are often lost from conscious memory are commonly felt and complicated for articulation. (Wilson, 2006. P. 62)

It seems then that to the extent that our sensitivity shapes our perception, at the basis of how we approach ecology, there are all the raw, visceral, and emotional experiences of being in the world. Sensitivity thus mediates our connections to the world. Breathing and eating like a newborn in relation to its mother, we are likewise like lovers drawn together or falling apart based on how we sensitively see and think to act on our surroundings. Without health by means of rich sensitivity, life dies for lack of a basis to adjust our relations to ever-changing features of existence. Furthermore, because sensitivity is requisite to morality being enacted, we can appreciate the perspective that:

The universe is a moral universe, and nature has certain signals to indicate the proper relationship between one thing and another and the proper actions of any given thing. This describes nature: what about man? To complete the picture, the Confucians had to demonstrate that at least some men possess an organ capable of recognizing nature's ethical signals. Otherwise, human moral conduct is impossible. (Munro, 1969. P. 44)

Such sensitivity is positively expressed in the lives of remarkable people in ecology like John Muir and Rachel Carson, who were sensitively influenced by their experiences of Nature as children, just as I was.

Memories that inform me still with great impact are those of being outdoors, alone and with my grandfather. Near my childhood home, I played endlessly outside from breakfast to dinner.

Deer were my playmates and salamanders, confidants. In the North Maine Woods, my grandfather apprenticed me to the ways of nature, how to read her signs, walk her belly, speak with her children, and engage her mysteries.

Muir related that among his early experiences of Nature related to humanity, there were walks with his grandfather; and perhaps when he was three years old, he recalls seeing figs growing against a sunny wall where he touched and tasted them, and got as many apples to eat as he wished. On another memorable walk in a hayfield, when he sat down to rest, he heard a sharp, high-pitched, cry; whereupon he jumped up and called for his grandfather's attention. Together, they discovered the source of the strange sound—a mother field mouse with half a dozen naked young hanging to her teats. This to him was as wonderful discovery as discovering a bear and her cubs in a wilderness den. (Muir, 1995. p. 27)

Linda Lear, Rachel Carson's biographer wrote of Carson's early childhood experience:

Rachel Carson first discovered nature in the company of her mother, a devotee of the nature study movement. She wandered the banks of the Allegheny River in the pristine village of Springdale, Pennsylvania, just north of Pittsburgh, observing the wildlife and plants around her and particularly curious about the habits of birds. (Carson, 2002. p. xi)

I have found this bonding forges a channel of communication between a person and the world (including humans and the more-than-human world) around him. The primary means of conversing is at first an emotional one. In contrast to my feelings of joy and wholeness as a child, I felt loss and anger when developers came to my neighborhood. They clear-cut the woods and built McMansions. I wept and screamed for all the lives lost, creatures displaced and homes demolished. I was further injured when no one else, particularly adults, cared. John Muir had much the same response:

Here is an illustration of the better side of boy nature. In our back yard there were three elms and in the one nearest the house a pair of robin-redbreasts had their nest. When the young were almost able to fly, a troop of the celebrated “Scottish Grays” visited Dunbar...When the soldiers were polishing their swords and helmets, they happened to notice the nest, and just as they were leaving, one of them climbed the tree and robbed it. With sore sympathy we watched the young birds as the hard-hearted robber pushed them one by one beneath his jacket—all but two that jumped out of the nest and tried to fly, but they were easily caught as they fluttered to the ground, and were hidden away with the rest. The distress of the bereaved parents, as they hovered and screamed over the frightened crying children they so long had loved and sheltered and fed, was pitiful to see; but the shining soldier rode grandly away on his big gray horse, caring only for the few pennies the young songbirds would bring and the beer they would buy, while we all, sisters and brothers, were crying and sobbing. I remember as if it happened this day, how my heart fairly ached and choked me. (Muir, 1995. p. 34-35)

With equal emotion Aldo Leopold reflected on shooting a wolf:

We reached the old wolf in time to watch a fierce green fire dying in her eyes. I realized then, and have known ever since, that there was something new to me in those eyes something known only to her and to the mountain. I was young then, and full of trigger-itch; I thought that because fewer wolves meant more deer, that no wolves would mean hunters’ paradise. But after seeing the green fire die, I sensed that neither the wolf nor the mountain agreed with such a view. (Leopold, 1980. P. 130)

Throughout life, this bond through feeling acts as the catalyst to act out against injustice and to seek balance. In very plain language, Xun Zi, a Confucian philosopher (312-230 BCE), wrote that this was common to all people:

Everyone has characteristics in common with others. When hungry he desires to eat; when cold he desires to be warm; when toiling he desires to rest; he wants what is beneficial and hates what is injurious—with these attitudes man is born; he has them without waiting to learn them. (Munro, 1969. p. 69)

Expansive sensitivity may connect us to what can be described as a spiritual or mystical experience of wilderness as a temple. As Emerson, who greatly influenced Muir and the preservationist movement, wrote:

In the woods, we return to reason and faith. There I feel that nothing can befall me in life, —no disgrace, no calamity (leaving me my eyes), which nature cannot repair. Standing

there on bare ground,—my head bathed by the blithe air, and uplifted into infinite space, —all mean egotism vanishes, I become a transparent eyeball; I am nothing; I see all; the currents of the Universal Being circulate through me; I am part or particle of God. The name of the nearest friend sounds then foreign and accidental: to be brothers, to be acquaintances,—master or servant, is then a trifle and a disturbance. I am the lover of the uncontained and immortal beauty. In the wilderness, I find something more dear and connate than in streets or villages. In the tranquil landscape, and especially in the distant line of the horizon, man beholds somewhat as beautiful as his own nature. (Emerson, 1965. p. 193)



Judging by the 3.5 billion year life of Earth, it seems that restoration and rejuvenation are integral parts of the process of balance, and the orientation towards benefit and balance may be intrinsic to life. For example, the evidence left when ecosystems are disrupted and then left to their own ways, always leads to regeneration of life forms. Depending on the severity of the disruption the new balance will look much like the old (e.g. after a single tree is cut down), or an entirely new spectrum (e.g. after the ice ages). Why would this trait not show up in human nature? We have sprung forth from this 3.5 billion year process of life, and with balance being one of its strategies for success; we would of course be expected to embody this orientation. We may be intrigued to note that automatic processes such as those of the body obviously enact dynamic balance. And, because balance is not a stagnant state, dynamic processes of change are constant requirements for health amid flux. Health then can be viewed as a timely response to change that enables balance to be lived out like wisdom provides balance in character. Then, returning to our bodies, consider what happens when a laceration of the skin occurs. Remarkably, without any conscious interference, the body reacts to the change. It clots the ruptured blood vessels, stops the bleeding, and begins the process of repairing the tissue. Ultimately, despite multiple minor disruptions, systems that constitute the skin act as originally intended.

In line with this process, character development promotes, protects, and heals humanity parallel to automatic bodily functions. As superior properties or attributes of consciousness, when healthful principles are applied to conflict, individuals thereby align themselves with creative cosmic forces that in theory affect the evolution of humanity in general.

In tandem with automatic processes seeking balance within the human body, we must address balance in our emotions. On this subject, Confucius wrote in The Doctrine of the Mean:

Before the feelings of pleasure, anger, sorrow, and joy are aroused it is called equilibrium (chung, centrality, mean). When these feelings are aroused and each and all attain due measure and degree, it is called harmony. Equilibrium is the great foundation of the world, and harmony its universal path. When equilibrium and harmony are realized to the highest degree, heaven and earth will attain their proper order and all things will flourish. (Chan, 1973. P. 98)

Along this same line, Gola Wolf Richards wrote,

For thousands of years, sages in all world traditions have represented the highest development of humanity...they are said to have achieved wisdom through being 'centered.' Intuitively inspired from the integral center of the universe, as we are willing to implement mature insights into action...To seek, find, and integrate into consciousness the eternal harmony underlying the world's endless points of disorder is how one becomes centered. Contemplation provides a mean to this end. (1999. P. 5)

In 2009, as world leaders consider attending a convention on climate change in Copenhagen, science tells us we are overwhelming the planet's biophysical processes; yet, not all leaders have agreed to attend. Why is this? Do they not care? If not, why not?

E.O. Wilson in The Creation asked a similar question in his chapter, "Why Care?"

Nature is not only an objective entity but vital to our physical and spiritual well-being...I see it as the birthright of our evolutionary origin inside the biosphere...Consider, then, the following truth, which because of its importance deserves to be called the First Principle of Human Ecology: *Homo Sapiens is a species confined to an extremely small niche...our bodies stay trapped inside a proportionately microscopic bubble of physical constraints.* (2006. P. 26)

Again we return to the issue of sensitivity; whether through what is called “eco-anxiety” or personal experience of the degradation of the environment, effective sensitivity must be cultivated for us to co-create a moral universe. “When compassion integrates us with what we observe and react to, the results will be positive. When compassion is absent from what we observe and react to, the results will be bad. If we live for ourselves alone, we suffocate all the powers of goodness. (Richards, 1999. P. 11)

Aldo Leopold wrote in his “Land Ethic ”that,

This extension of ethics, so far studied only by philosophers, is actually a process in ecological evolution. Its sequences may be described in ecological as well as in philosophical terms. An ethic, ecologically, is a limitation on freedom of action in the struggle for existence. An ethic, philosophically, is a differentiation of social from antisocial conduct. These are two definitions of one thing. The thing has its origin in the tendency of interdependent individuals or groups to evolve modes of cooperation. The ecologist calls these symbioses in which the original free-for-all competition has been replaced, in part, by co-operative mechanisms with an ethical content. (Leopold, 1980. P. 202)

Further, he says,

An ethic may be regarded as a mode of guidance for meeting ecological situations so new or intricate, or involving such deferred reactions, that the path of social expediency is not discernible to the average individual. Animal instincts are modes of guidance for the individual in meeting such situations. Ethics are possibly a kind of community instinct in-the-making. (Leopold, 1980. P. 203)

Ethical culture expressed through refined sensitivity not only enlivens our bodies and emotions but also our curiosity and intellect. Nel Noddings agreed in Educating Moral People,

An ethic of care does not eschew logic and reasoning. When we care, we must employ reasoning to decide what to do and how best to do it. We strive for competence because we want to do our best for those we care for. But reason is not what motivates us. It is feeling with and for the other that motivates us in natural caring. In ethical caring, this feeling is subdued, and so it must be augmented by a feeling for our own ethical selves. (2002. p. 14)

For example, as John Muir actively championed the preservation movement, he aided in the creation of the National Park System. As Rachel Carson worked to start the modern environmental movement, she acted through her investigation and book, Silent Spring. If either had simply cared without discerning timely action, even with the enormous feeling of caring they had towards the world, the planet would be a very different place today. In the United States commercial interests would have taken over every last square inch of economically viable land, including some of the most inspiring and biologically diverse areas. The fictional “Silent Spring” of Carson’s pen may tragically have come as well.

Muir and Carson are good examples of what Noddings described as “features of caring:”

In a phenomenological analysis of caring, it becomes clear that the consciousness of ‘carers,’ in moments of care, is characterized by two features. First, there is a special form of attentiveness, which I have called engrossment; this form of attention is acutely receptive and is directed at the cared-for. Second, there is a motivational shift; the motivational shift of the carer begins to flow toward the needs of the cared-for. (Noddings, 2002. p.28)

While Noddings concentrates on human-to-human relationships in her book, I apply the concepts more broadly. As John Francis came to realize on his 22-year walking pilgrimage,

People are a part of the environment, not just caretakers, and we are at the core of our environmental troubles. Environment then, is also about human and civil rights, economic equity, gender equality, and from the standpoint of a pilgrim on the road, environment is about how we treat each other when we meet each other. (2009. P. 8)

Recalling the idea of “wilderness as a temple”, Emerson's thoughts for transcendent humanity symbolize an evolutionary path of action, with progress achieved by means of contemplating the nature of ideal human development. If core Confucian thoughts about the developmental value of superior character to overall cultural health are considered in a modern context, the evolutionary biologist E.O. Wilson wrote:

The critical stages in the acquisition of biophilia have been worked out by psychologists during studies of childhood mental development. Under the age of six, children tend to be egocentric, self-serving, and domineering in their responses to animals and nature. They are also most prone to be uncaring or fearful of the natural world and of all but a few familiar animals. Between six and nine, children become interested in wild creatures for the first time, and aware that animals can suffer pain and distress. From nine to twelve their knowledge and interest in the natural world rises sharply, and between thirteen and seventeen they readily acquire moral feeling toward animal welfare and species conservation. (Wilson, 2002. p. 137-138)

David Orr, a leader in ecological learning, stated,

Biophilia, conscious and subconscious, deserves to be a legitimate subject of conversation and inquiry. We need to become students of biophilia in order to understand more fully how it comes to be, how it prospers, and what it requires of us. For another, it requires a greater consciousness about how language, models, theories, and curricula can sometimes alienate us from our subject matter. Words that render nature into abstractions of board feet, barrels, sustainable yields, and resources drive out such feelings and the affinities we have at a deeper level. We need better tools, models, and theories, calibrated to our innate loyalties—ones that create less dissonance between what we do for a living, how we think, and what we feel as creatures who are the product of several million years of evolution. (2004. P. 46)

Predicated on such development, health is gained to hear, feel, and act on old John Muir's words:

Climb the mountains and receive their glad tidings. Nature's peace will flow into you as sunshine flows into the trees. The winds will blow their freshness into you, and the storms their energy, while cares will drop off like falling leaves. (1995. P. 498)

### The Ecological Mind: Habits of Superior Character

All nature is akin, and the soul has learned everything, so that when a man has recalled a single piece of knowledge—learned it in ordinary language—there is no reason why he should not find out all the rest, if he keeps a stout heart and does not grow weary of the search, for seeking and learning are in fact nothing but recollection. (Plato, 1961. p. 364)

Thoroughly integrating ecological consciousness into the next level of universal human development requires two fundamental steps, I propose. First, we must develop consciousness to a profound state of awareness; thereby we can fully acknowledge extreme damages negatively imposed through unconscious and irresponsible human activities. Second to that, education for higher quality customs of thought and action must be cultivated to healthfully address our collective inadequacies.

Though the first point may sound easy to achieve, modern culture is rampant with habits that suppress, ignore, and persecute comprehensive expansions in consciousness. Michael Cohen refers to this issue as “the wrangler.” The “wrangler” keeps us from appreciating the full capacity of our sensory experiences of Nature to reward respectful appreciation with healthful tendencies to balance. He pins this wrangling tendency on industrial society, which devalues anything that is not exploitable for profit. (Cohen, 2007)

E.F. Schumacher described this in Small is Beautiful,

If an activity has been branded uneconomic, its right to existence is not merely questioned but energetically denied. Anything that is found to be an impediment to economic growth is a shameful thing, and if people cling to it, they are thought of as either saboteurs or fools. Call a thing immoral or ugly, soul-destroying or a degradation of man, a peril to the peace of the world or to the well-being of future generations; as long as you have not shown it to be “uneconomic” you have not really questioned its right to exist, grow, and prosper. (Schumacher, 1975. p. 41-42)

Thus, a primary need is for individuals to acknowledge as Thomas Berry said “there is one economy and that is the earth’s economy.” (1999) By doing this the ecological truths for living

on planet Earth are upheld for sound policies to be constructed. As “the wrangler contaminates our ability to think with respect to the whole of life,” (Cohen, 2007. p. 121) and this disconnection being the current mentality of the masses, makes it quite a considerable effort on the individual’s part to achieve and maintain this knowledge. Without this acknowledgment and mindset, enacting an ecological and ethical consciousness is hindered, as “all ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts.” (Leopold, 1980. P. 203)

In the second step to achieving an ecological mind, key principles representing ideal qualities of thought must become commonly upheld. Discipline for such thinking would be uplifted through contemplative as well as investigative pursuits. Contemplating broad landscapes of life through the use of metaphors and aphorisms would lift comprehensiveness. In tandem, details to change based on scientific incisiveness would be lifted through compassionately directed investigation for critical action. Of course, since consciousness and thought are based upon contrast, “We can only think because we can think in opposites. [Hence] we only know something by contrasting it with what it is not.” (Mayes, 2005. p. 70) For example, we cannot know light without dark. Ecology is very much steeped in such contrast. That the air I breath is what the plant world exhales, and what I exhale is what the plant world breathes is a practical example of reciprocity, or completion through a contrasting complement of opposites. Thus, “my” breath is at once mine and the world’s. This practice is necessary for seemingly more complex issues as well. Whether this is understanding the role of predators in the web of life, or a child complaining that “Johnny, hit me!” Martin Buber illuminated universal reciprocity in yet another aspect of creation,

Primary words [I-Thou, I-It] do not signify things, but they intimate relations. Primary words do not describe something that might exist independently of them, but being spoken they bring about existence. Primary words are spoken from the being. If *Thou* is said, the *I* of the combination *I-Thou* is said along with it... (1958. P. 3)

We must become trained in fluidly shifting our perspectives in order to encompass the whole picture. As the Chinese philosopher, Chu Hsi, stated, “It is only because all principles are not investigated that man’s knowledge is incomplete.” (Chan, 1973. P. 89)

Contemplative thought invites investigation. As logically systematic study, investigation means that we know that we don’t know, and we are looking to “perfect our knowledge” as Confucius said. Perfection of knowledge occurs through an extension of knowledge.

The five questions, who, what, where, why and how, are intrinsic to this process and are the basis for inquiry. This is true for science and the humanities; it is the beginning of critical thinking. When we begin to answer not only the five questions but investigate the relationship between their answers, we begin approaches to more complete pictures of life. Who was involved? What were they doing? Where? Why and how? In any of these questions, we learn to peer behind the scenes to answer especially the why, as this is often the least apparent. The other four questions can help to illuminate the fifth. The why is the principle, it is “the blueprint or the pattern” that one is seeking in this kind of thought. (Gardner, 1995. p. 49) This quality of thought is investigative in that one evaluates theories, beliefs, ideas and actions as part of the reflective process. Chu Hsi explained this situation through the example of reading:

Effective reading, then, depended on a willingness to doubt and not just the views of others but one’s own as well...Indeed, this willingness was the starting point, the premise, for only a genuinely inquiring mind would have the tenacity to pursue the truth fully, casting aside all preconceived and misguided ideas in the process. (Gardner, 1990. p.46)

Necessarily, the primary question that one is to test may be difficult to pinpoint. My estimation is that through study in comparative religion, philosophy, ethics, psychology and science, the general features of our primary concerns come down to something such as “how do I best direct my own creativity to complement overall creative change?” In religion this may be thought of as the issue of “how do I enact the will of god?” In science and psychology, “how do I define and promote health?” Philosophy and ethics, perhaps “what constitutes truly meaningful action?” Which of course leads down the trail of what is correct...correct for health...correctly divine, adaptive, timely, and good to do with my portion of universal creative force?” As I see it, to summarize all these questions in unison:

It is best to think of principles of change [Tao] as the source of paths where things constantly and necessarily follow in process of transformation. The task for the sage then is to manifest the Tao [the Way of Cosmic Harmony] in timely reactions to overall change. In other words, superior humanity must contemplate laws of change so as to adapt our microcosmic experiences in harmony with macro-cosmic designs. In line with this, because change depends on the interplay of contrasting forces, universal creativity (cosmos) persists in contrast to universal destruction (chaos). Like the T'ai Chi (Yin/Yang) symbol shows us, dark turns into light and light into dark. When the night is the darkest it begins its movement towards day and when the sun is at its highest, it begins its descent towards night. Therefore, between the two fundamental positive and negative forces of the universe, timeliness is of utmost importance to align ourselves amid universally creative and destructive forces. We see this as when farmers know the importance of timeliness in agriculture; seeds planted for a timely harvest, yield food during winter scarcity.

Timely procreation keeps the planet within proper bounds for carrying not too much and not too little for sustainable change. All this accords with cosmic creativity, the central support all life on the planet. With this in mind, the root of stability and the basis of timely change is to reduce our numbers on the planet to protect the rate of our procreation from being destructive. Now, as we over-consume the Earth based on our numbers and the magnitude of our ignorance, creativity is best expressed not through uncontrolled growth, but controlled reproduction, aiming for zero population growth. In The Universe Story, we read:

This term progress is itself something of a parody of the inner dynamics of the universe. Progress towards Wonderland, to be achieved by industrial assault upon the planet, is ultimately a subversion of the emergent process whereby the universe in all its aspects has come into being. That the universe, in the diversity and abundance of its expression, has been so successful over vast periods of time is a wonder that we only now begin to appreciate. There have indeed been moments of destruction whereby larger patterns of existence could emerge into being, moments such as happen in the supernova explosions. Yet in these vast transformation events the future possibilities of the entire universe took shape. (Swimme & Berry, 1994. p. 242)

Contemplatively, as we observe that from death comes new life, without death, our world would not exist. From the nutrient cycle to petroleum, life depends on death. At times death is the appropriate creative response. As life depends on death, we can come to see the universe and our experience as a process rather than a static thing; and where we learn to trace things back to their roots to anticipate their branches, we experience the process of coming and going as balanced aspect of a whole.

Observations noting that reality is to be understood as a process are ancient. In ancient Greece, as Heraclitus said that everything flows, we may add that not only is everything changing, but flux is what is in process of becoming. And, all objects, events, entities, conditions, and forms are derived from unending processes of change. Then, as we learn to make any

experience creative through the process of learning from it, “why” something happened is no less important than learning to see new and timely ways to adaptively transform. This is the root of restorative justice, where an “offender” and “victim” are seen as aspects of a whole network of relationships taken into account during the restorative process. In the end, completely new views of one another may be formed and what may first have been seen as simply a “bad thing,” becomes a catalyst for personal and community growth.

Perhaps an ideal summary of what I am reaching for in this chapter and the next is The Great Learning; attributed to Confucius as the author:

What the Great Learning teaches, is—to illustrate illustrious virtue; to renovate the people; and to rest in the highest excellence.

The point where to rest being known, the object of pursuit is then determined; and that being determined, a calm unperturbedness may be attained to. To that calmness there will succeed a tranquil repose. In that repose there may be a careful deliberation, and that deliberation will be followed by the attainment of the desired end.

Things have their roots and their branches. Affairs have their end and their beginning. To know what is first and what is last will lead near to what is taught in the Great Learning [that]:

The ancients who wished to illustrate illustrious virtue throughout the kingdom, first ordered well their own States. Wishing to order well their own States, they first regulated their families. Wishing to regulate their families, they first cultivated their persons. Wishing to cultivate their persons, they first rectified their hearts. Wishing to rectify their hearts, they first sought to be sincere in their thoughts. Wishing to be sincere in their thoughts, they first extended to the utmost their knowledge. Such extension of knowledge lay in the investigation of things.

Things being investigated, knowledge became complete. Their knowledge being complete, their thoughts were sincere. Their thoughts being sincere, their hearts were then rectified. Their hearts being rectified, their persons were cultivated. Their persons being cultivated, their families were regulated. Their families being regulated, their States were rightly governed. Their States being rightly governed, the whole kingdom was made tranquil and happy.

From the Son of Heaven down to the mass of the people, all must consider the cultivation of the person the root of everything besides.

It cannot be, when the root is neglected, that what should spring from it will be well ordered. It never has been the case that what was of great importance has been slightly cared for, and, at the same time, that what was of slight importance has been greatly cared for. (Legge, 1971. P. 356-359)

The first chapter of this thesis was directed to discussing the emotional cultivation needed for “a calm unperturbedness,” and, “a tranquil repose.” This chapter is directed to the extension of knowledge and sincerity of thought in support of a rectified heart. The chapter following this one will explore the outcomes of these first two chapters, in terms of “the whole kingdom was made tranquil and happy.”

The meaning of the of the expression “the perfection of knowledge depends on the investigation of things” is this: If we wish to extend our knowledge to the utmost, we must investigate the principles of all things we come in contact with, for the intelligent mind of man is certainly formed to know, and there is not a single thing in which its principles do not inhere. It is only because all principles are not investigated that man’s knowledge is incomplete. (Chan, 1973. P. 89)

Emphasizing “we must investigate the principles of all things we come in contact with”; contact implies relationship and thus we have the ancient roots of the modern school of thought of “human ecology.”

So what happens when we follow this path? What happens when we acknowledge our physical and emotional needs and connections with the web of life, and develop traditions, customs, and habits of holistic thinking? Conceivably, we would develop a culture of peace. People would become life-long learners, mindful of how one affects the lives of other people, and the more-than-human world. The crises of today would become examples of paradigms changed, environmental degradation would be reversed, and the rights of every human would be upheld.

As experiments such as Findhorn in Scotland show us, we live out a culture of peace, within ourselves, among each other, and with Earth. We strengthen the web of life, (Findhorn is well known as a model of human habitat design to work with natural systems to the greatest extent possible, for example, cultivating diverse and abundant crops in once nearly infertile soil) increase satisfaction of life and our interactions. Though this information is hardly new, the call for fresh cultural reform is as old as the mythic history of stories told about gods renewing creation through self-transformation. What this paper illustrates then aligns with Thomas Berry's view of the Ecozoic Era. A time when people feel, think, and act, in an ever-renewing way, aligned with ecology and cosmology: "Presently we seek to remedy the devastation of the planet by entry into a new period of creativity participated in by the entire Earth community. This new period we identify as the Ecozoic era." (Swimme & Berry, 1992. P. 242)

Ecological understanding is consistent with the idea of holism:

The theory that parts of a whole are in intimate interconnection, such that they cannot exist independently of the whole, or cannot be understood without reference to the whole, which is thus regarded as greater than the sum of its parts. Holism is often applied to mental states, language, and ecology. (Oxford American Dictionary, 2009)

As indicated at the end of the previous chapter, cultivation of character lies at its root in the "extension of knowledge," and the "investigation of things." This is done to properly grasp the principle of a thing so that the character of a sage and an ecologist act as though everything is connected, and adaptively, everything is in a process of constant change. This premise is supported in the following statement from science; that could just as well be found in the writings of a mystic:

When scientists set out to discover the smallest, most basic form of matter, they encountered particles that were smaller and smaller and smaller, until finally they came to a point where there were no particles at all—no 'things.' There were only relationships.

What this means in the most basic sense is that we don't live in a world of things. We live in a world of relationships. (Ausubel, 2004. p. 100)

By means of extension, The Earth Charter, created through worldwide consultation puts forth principles of respect and care for the community of life, ecological integrity, social and economic justice, and democracy, nonviolence, and peace. The character developed as a result of the processes discussed in this paper, is the model citizen of The Earth Charter.

As The Great Learning states very clearly, "From the Son of Heaven down to the mass of the people, all must consider the cultivation of the person the root of everything besides." (Legge, 1971. P. 359) Thus the creation and perpetuation of a society as outlined in The Earth Charter, is intimately tied and dependent upon individuals cultivating themselves to enact character for global conflict-resolution. And again as The Great Learning tersely illustrates, character development is done through a holistic extension of knowledge and investigation of things; the same process as ecological thinking.

### Conclusion: Outcomes and Implications

The plain fact is that the planet does not need more successful people. But it does desperately need more peacemakers, healers, restorers, storytellers, and lovers of every kind. It needs people who live well in their places. It needs people of moral courage willing to join the fight to make the world habitable and humane. And these qualities have little to do with success as our culture has defined it. (Orr, 2004. p. 12)

Based on the comprehensive extent of the world in crisis, this essay has explored concepts for timely creativity, derived from complementary perspectives among ecologists and sages. My aim has been to highlight the fact that education directed to character development for global conflict-resolution works in a complementary way with “wisdom” realized in the ecological arena. Along the way, I have developed an appreciation for the large scope of our problems being summarized in comprehensively concise ways, like Bill Plotkin wrote,

Wisdom is not to be confused with knowledge. There’s no doubt that the Sage has learned a lot of facts in her long lifetime, but more essentially she has acquired wisdom, a vast perspective that allows her to recognize, value, and support what truly sustains life, the life of the whole. (Plotkin, 2008. P. 424)

Again, Plotkin said in Nature and the Human Soul: Cultivating Wholeness and Community in a Fragmented World that

They [soulcentric cultures] are designed to assist all members in discovering and living from their deepest and most fulfilling potentials, in this way contributing their most life-nourishing gifts to their community and environment and, in doing so, actualizing the culture’s potential and supporting its ongoing evolution...to say that a culture is ecocentric is to say that its customs, traditions, and practices are rooted in an awareness of radical interdependence with all beings. The individual in an ecocentric society perceives the world as an organic web of relationships and recognizes each living thing as an integral participant in this evolving web.

Everyone in such a society knows that each thing, including each person, is what it is by virtue of its relationships with everything else...Soulcentric cultures contrast with *egocentric* ones, those that prioritize the lifelong comfort, security, and social acceptance of the early-adolescent ego. An egocentric culture has a dysfunctional notion of the self,

which it sees as an isolated, competitive entity, a free and autonomous agent. An egocentric ego is ego-identified: it believes it represents only itself. (Plotkin, 2008. P. 45-46)

Along this line, I have developed an impression that the task at hand for educators includes their own self-cultivation to transform fragmented culture. This supported by the Jungian psychologist and educator, Clifford Mayes, “The teacher’s moral character and psychological insight are what really win or lose the day for him with his students.” (2005. p. 115) David Bohm elaborated this point in Wholeness and the Implicate Order, on page 1:

It is especially important to consider this question today, for fragmentation is now very widespread, not only throughout society, but also in each individual; and this is leading to a kind of general confusion of the mind, which creates an endless series of problems and interferes with our clarity of perception so seriously as to prevent us from being able to solve most of them. (1980. P. 1)

And,

This fragmented version of reality is an illusion and as such it cannot do other than lead to endless conflict and confusion. Indeed, the attempt to live according to the notion that the fragments are really separate is, in essence, what has led to the growing series of extremely urgent crises that is confronting us today. (Bohm, 1980. P. 2)

Likewise, as my, John Muir’s and Rachel Carson’s early childhood experiences illuminated, it is vital for children to have healthy mentors. My research concludes that ideally this would happen in families, but nowadays, this is not reliably available. Consequently, teachers become increasingly important to cultivating healthful maturity in children. Again, as Plotkin honored the human development process,

In a soulcentric approach to child development, the primary task of parents and teachers is to raise children who will grow into soul-rooted (initiated) adults, people who have discovered the gifts they were born to bring to the world. But during childhood the primary value of a child is not that she might become an initiated adult someday. Every child *as a child* contributes many precious qualities to her family, to her playmates, to her school, and to her more-than-human world. These qualities supplement and often surpass

the important social roles the child fills, such as caring for younger children, pets, or farm animals, or working in the garden or kitchen. The single greatest contribution that Explorers [middle childhood]...bestow upon the world, just by existing, is, of course, the gift of wonder. (Plotkin, 2008. P. 119)

For the sake of wonder, David Sobel has studied the benefits of nature-based education and published them in his many books. Some of these benefits include reduced rates of illness and improved standardized test scores. (1996) He, Bill Plotkin, Rachel Carson, and myself all found that children need their wild curiosity and imagination to be fostered through intimate contact with nature during free-play and with mentors.

A child's world is fresh and new and beautiful, full of wonder and excitement. It is our misfortune that for most of us that clear-eyed vision, that true instinct for what is beautiful and awe-inspiring, is dimmed and even lost before we reach adulthood...If a child is to keep alive his inborn sense of wonder...he needs the companionship of at least one adult who can share it, rediscovering with him the joy, excitement and mystery of the world we live in. (Carson, 1998. P. 54-55)

In addition, children need to be involved with meaningful activities that promote self-esteem, connection with natural cycles and allow for the earth and nature to teach. Educationally speaking, gardening, caring for animals, and naturalist activities are prime means of providing these opportunities. As Masanobu Fukuoka, credited with the modern natural farming movement, said, "The ultimate goal of farming is not the growing of crops, but the cultivation and perfection of human beings." (2009. P. xiv)

Educational perspectives need to be radically changed. School must no longer be solely for the development of test-taking skills and throw-away knowledge. It must become about honoring a child's developmental process and place within the web of life. As written in a brief for the Schumacher Society:

The most urgent challenge is for educational institutions to make a conscious shift from their guiding metaphor of 'factory,' and move to the metaphor of 'living system;' to move

from just seeing themselves as ‘teaching organizations,’ to becoming *learning organizations*. (Sterling, 2004. p. 48)

To accomplish this we must honor a child’s natural abilities; not promoting immature versions of adulthood in the process of cultivating superior personalities. David Sobel agrees, as does Bill Plotkin as he wrote here:

In the Garden [middle childhood stage of development], the child is a wide-eyed researcher, an incessant questioner of everything from the color of grass and sky and the twinkling of stars to the properties of magnifying glasses and magnets, from the flight of butterflies and the power of lions to the meaning of kisses and touchdowns. He is gathering the world. Whatever he does, exploration is at the center of his activities, whether he is at home, at school, playing outside, alone or with friends...He is a learner, student, novice, a disciple of the wondrous and marvelous—in essence, an Explorer. (Plotkin, 2008. P. 116)

This is the heart of ecology as I discussed in the chapter of this essay, “Ecology, Sensitivity, and Human Development.” This is our natural state of connection to the world, one that needs to be cultivated rather than suppressed by “wranglers”, misunderstanding humanity’s place on Earth.

Furthermore, to transform our educational institutions and societies, we need to reform our relationships with the world or the Others as Bill Plotkin calls our fellow humans, animals, plants, landforms, waterways, and residents of the sky. (2003. p. 155) He captures my point here:

Our interactions with them [the Others] reveal to us ourselves and also teach us about them and *their* needs, vulnerabilities, perspectives, gifts, and dreams. By deepening out relationships with the Others, our gratitude for the whole world grows and we become more capable and responsible members of the world community. We also uncover mysteries about our unique way of belonging to this world of Others. Through communion with all of life; we weave a healthier and more balanced world back into being. (Plotkin, 2003. p. 155)

The implications of extending knowledge mean that everything is investigated from as many perspectives as possible. This is the means to arriving to truth. We must look inward as well as

outward, through lenses of science and the humanities. A tree may be examined as an archetypal symbol, an organism, potential source of medicine, technology, inspiration for art or poetry and as Aldo Leopold did, as an axis and participant in history. (1980. P. 9-17)

My hope for this thesis is that it inspires others and me in future studies; broad, deep, and unending. The quest will be to learn and then quest for even more knowledge and wisdom about interactions between Nature, sanely mature adults, and children. I hope this essay reflects as well as encourages looking beyond the data of test scores, to find respect for individuals needing to respect and uphold the environment with interpersonal, intrapersonal, and naturalist skills. As I am now inspired to go beyond traditionally scored subjects to expand an integrated perspective, my hope for this essay is to improve the environmental footprints of what we learn as students and educators. With faith that kindness and compassion can be learned and retained over a lifetime, my hope for this essay is to extend a complement to the work of others. Thereby, we may create peace rather than war; finally learning to apply principles like those in The Earth Charter to assess successful humanity in terms of life on Earth as one fully integrated community.

## Findings

### *Global Complexities:*

The world's problems in economics, management of natural resources, climate change, and interpersonal conflict, appear to be beyond the comprehension of the average individual. However, the universal truth about the collective picture is that it is rooted in individual principles that reflect chaos, in need of corrective self- cultivation.

### *Self-Cultivation and Ecology:*

Understanding self-cultivation in terms of being a part of a unified field of relationships is key to the growth of a mature culture of peace. When the natural web of our relationships is used to strengthen our depth of knowledge, the feedback from the environment supports timely adjustments and refinements in our emotional and technical developments.

### *Healthy Mentors:*

From birth, integral human development depends on able caregivers. From parents to other adults in a child's life, aspects of mentoring can be generally or specifically found in particular personalities in that evolve a child's character. Whether in intimate contact or not, the need for exemplary maturity is desperately needed to guide humanity to healthful relations with the Earth as one community.

### *Direct Contact with Nature:*

Humanity benefits from direct contact with the natural world. As the irreplaceable foundation and substance of life for powers-physical, emotional, psychological, spiritual, bonding children to natural settings furthers respect for all life, as an interactive womb for true civilization.

*Education for Sanity:*

What I speak about collectively concerns education, used to plan and cultivate healthful reciprocity or sanity in human relations. Nothing less can handle the complex nature of conflicts.

## Appendix

# THE EARTH CHARTER

## PREAMBLE

We stand at a critical moment in Earth's history, a time when humanity must choose its future. As the world becomes increasingly interdependent and fragile, the future at once holds great peril and great promise. To move forward we must recognize that in the midst of a magnificent diversity of cultures and life forms we are one human family and one Earth community with a common destiny. We must join together to bring forth a sustainable global society founded on respect for nature, universal human rights, economic justice, and a culture of peace. Towards this end, it is imperative that we, the peoples of Earth, declare our responsibility to one another, to the greater community of life, and to future generations.

### **Earth, Our Home**

Humanity is part of a vast evolving universe. Earth, our home, is alive with a unique community of life. The forces of nature make existence a demanding and uncertain adventure, but Earth has provided the conditions essential to life's evolution. The resilience of the community of life and the well-being of humanity depend upon preserving a healthy biosphere with all its ecological systems, a rich variety of plants and animals, fertile soils, pure waters, and clean air. The global environment with its finite resources is a common concern of all peoples. The protection of Earth's vitality, diversity, and beauty is a sacred trust.

### **The Global Situation**

The dominant patterns of production and consumption are causing environmental devastation, the depletion of resources, and a massive extinction of species. Communities are being undermined. The benefits of development are not shared equitably and the gap between rich and poor is widening. Injustice, poverty, ignorance, and violent conflict are widespread and the cause of great suffering. An unprecedented rise in human population has overburdened ecological and social systems. The foundations of global security are threatened. These trends are perilous—but not inevitable.

### **The Challenges Ahead**

The choice is ours: form a global partnership to care for Earth and one another or risk the destruction of ourselves and the diversity of life. Fundamental changes are needed in our values, institutions, and ways of living. We must realize that when basic needs have been met, human development is primarily about being more, not having more. We have the knowledge and technology to provide for all and to reduce our impacts on the environment. The emergence of a global civil society is creating new opportunities to build a democratic and humane world. Our environmental, economic, political, social, and spiritual challenges are interconnected, and together we can forge inclusive solutions.

### **Universal Responsibility**

To realize these aspirations, we must decide to live with a sense of universal responsibility, identifying ourselves with the whole Earth community as well as our local communities. We are at once citizens of different nations and of one world in which the local and global are linked. Everyone shares responsibility for the present and future well-being of the human family and the

larger living world. The spirit of human solidarity and kinship with all life is strengthened when we live with reverence for the mystery of being, gratitude for the gift of life, and humility regarding the human place in nature.

We urgently need a shared vision of basic values to provide an ethical foundation for the emerging world community. Therefore, together in hope we affirm the following interdependent principles for a sustainable way of life as a common standard by which the conduct of all individuals, organizations, businesses, governments, and transnational institutions is to be guided and assessed.

## **PRINCIPLES**

### **THE EARTH CHARTER**

#### **I. RESPECT AND CARE FOR THE COMMUNITY OF LIFE**

##### **1. Respect Earth and life in all its diversity.**

a. Recognize that all beings are interdependent and every form of life has value regardless of its worth to human beings. b. Affirm faith in the inherent dignity of all human beings and in the intellectual, artistic, ethical, and spiritual potential of humanity.

##### **2. Care for the community of life with understanding, compassion, and love.**

a. Accept that with the right to own, manage, and use natural resources comes the duty to prevent environmental harm and to protect the rights of people. b. Affirm that with increased freedom, knowledge, and power comes increased responsibility to promote the common good.

##### **3. Build democratic societies that are just, participatory, sustainable, and peaceful.**

a. Ensure that communities at all levels guarantee human rights and fundamental freedoms and provide everyone an opportunity to realize his or her full potential. b. Promote social and economic justice, enabling all to achieve a secure and meaningful livelihood that is ecologically responsible.

##### **4. Secure Earth's bounty and beauty for present and future generations.**

a. Recognize that the freedom of action of each generation is qualified by the needs of future generations. b. Transmit to future generations values, traditions, and institutions that support the long-term flourishing of Earth's human and ecological communities. In order to fulfill these four broad commitments, it is necessary to:

#### **II. ECOLOGICAL INTEGRITY**

##### **5. Protect and restore the integrity of Earth's ecological systems, with special concern for biological diversity and the natural processes that sustain life.**

a. Adopt at all levels sustainable development plans and regulations that make environmental conservation and rehabilitation integral to all development initiatives. b. Establish and safeguard viable nature and biosphere reserves, including wild lands and marine areas, to protect Earth's life support systems, maintain biodiversity, and preserve our natural heritage. c. Promote the recovery of endangered species and ecosystems. d. Control and eradicate non-native or genetically modified organisms harmful to native species and the environment, and prevent introduction of such harmful organisms. e. Manage the use of renewable resources such as water, soil, forest products, and marine life in ways that do not exceed rates of regeneration and that protect the health of ecosystems. f. Manage the extraction and use of non-renewable resources such as minerals and fossil fuels in ways that minimize depletion and cause no serious environmental damage.

**6. Prevent harm as the best method of environmental protection and, when knowledge is limited, apply a precautionary approach.**

- a. Take action to avoid the possibility of serious or irreversible environmental harm even when scientific knowledge is incomplete or inconclusive.
- b. Place the burden of proof on those who argue that a proposed activity will not cause significant harm, and make the responsible parties liable for environmental harm.
- c. Ensure that decision making addresses the cumulative, long-term, indirect, long distance, and global consequences of human activities.
- d. Prevent pollution of any part of the environment and allow no build-up of radioactive, toxic, or other hazardous substances.
- e. Avoid military activities damaging to the environment.

**7. Adopt patterns of production, consumption, and reproduction that safeguard Earth's regenerative capacities, human rights, and community well-being.**

- a. Reduce, reuse, and recycle the materials used in production and consumption systems, and ensure that residual waste can be assimilated by ecological systems.
- b. Act with restraint and efficiency when using energy, and rely increasingly on renewable energy sources such as solar and wind.
- c. Promote the development, adoption, and equitable transfer of environmentally sound technologies.
- d. Internalize the full environmental and social costs of goods and services in the selling price, and enable consumers to identify products that meet the highest social and environmental standards.
- e. Ensure universal access to health care that fosters reproductive health and responsible reproduction.
- f. Adopt lifestyles that emphasize the quality of life and material sufficiency in a finite world.

**8. Advance the study of ecological sustainability and promote the open exchange and wide application of the knowledge acquired.**

- a. Support international scientific and technical cooperation on sustainability, with special attention to the needs of developing nations.
- b. Recognize and preserve the traditional knowledge and spiritual wisdom in all cultures that contribute to environmental protection and human well-being.
- c. Ensure that information of vital importance to human health and environmental protection, including genetic information, remains available in the public domain.

**III. SOCIAL AND ECONOMIC JUSTICE**

**9. Eradicate poverty as an ethical, social, and environmental imperative.**

- a. Guarantee the right to potable water, clean air, food security, uncontaminated soil, shelter, and safe sanitation, allocating the national and international resources required.
- b. Empower every human being with the education and resources to secure a sustainable livelihood, and provide social security and safety nets for those who are unable to support themselves.
- c. Recognize the ignored, protect the vulnerable, serve those who suffer, and enable them to develop their capacities and to pursue their aspirations.

**10. Ensure that economic activities and institutions at all levels promote human development in an equitable and sustainable manner.**

- a. Promote the equitable distribution of wealth within nations and among nations.
- b. Enhance the intellectual, financial, technical, and social resources of developing nations, and relieve them of onerous international debt.
- c. Ensure that all trade supports sustainable resource use, environmental protection, and progressive labor standards.
- d. Require multinational corporations and international financial organizations to act transparently in the public good, and hold them accountable for the consequences of their activities.

**11. Affirm gender equality and equity as prerequisites to sustainable development and ensure universal access to education, health care, and economic opportunity.**

- a. Secure the human rights of women and girls and end all violence against them.
- b. Promote the active participation of women in all aspects of economic, political, civil, social, and cultural life as full and equal partners, decision makers, leaders, and beneficiaries.
- c. Strengthen families and ensure the safety and loving nurture of all family members.

**12. Uphold the right of all, without discrimination, to a natural and social environment supportive of human dignity, bodily health, and spiritual well-being, with special attention to the rights of indigenous peoples and minorities.**

- a. Eliminate discrimination in all its forms, such as that based on race, color, sex, sexual orientation, religion, language, and national, ethnic or social origin.
- b. Affirm the right of indigenous peoples to their spirituality, knowledge, lands and resources and to their related practice of sustainable livelihoods.
- c. Honor and support the young people of our communities, enabling them to fulfill their essential role in creating sustainable societies.
- d. Protect and restore outstanding places of cultural and spiritual significance.

**IV. DEMOCRACY, NONVIOLENCE, AND PEACE**

**13. Strengthen democratic institutions at all levels, and provide transparency and accountability in governance, inclusive participation in decision making, and access to justice.**

- a. Uphold the right of everyone to receive clear and timely information on environmental matters and all development plans and activities which are likely to affect them or in which they have an interest.
- b. Support local, regional and global civil society, and promote the meaningful participation of all interested individuals and organizations in decision making.
- c. Protect the rights to freedom of opinion, expression, peaceful assembly, association, and dissent.
- d. Institute effective and efficient access to administrative and independent judicial procedures, including remedies and redress for environmental harm and the threat of such harm.
- e. Eliminate corruption in all public and private institutions.
- f. Strengthen local communities, enabling them to care for their environments, and assign environmental responsibilities to the levels of government where they can be carried out most effectively.

**14. Integrate into formal education and life-long learning the knowledge, values, and skills needed for a sustainable way of life.**

- a. Provide all, especially children and youth, with educational opportunities that empower them to contribute actively to sustainable development.
- b. Promote the contribution of the arts and humanities as well as the sciences in sustainability education.
- c. Enhance the role of the mass media in raising awareness of ecological and social challenges.
- d. Recognize the importance of moral and spiritual education for sustainable living.

**15. Treat all living beings with respect and consideration.**

- a. Prevent cruelty to animals kept in human societies and protect them from suffering.
- b. Protect wild animals from methods of hunting, trapping, and fishing that cause extreme, prolonged, or avoidable suffering.
- c. Avoid or eliminate to the full extent possible the taking or destruction of non-targeted species.

**16. Promote a culture of tolerance, nonviolence, and peace.**

- a. Encourage and support mutual understanding, solidarity, and cooperation among all peoples and within and among nations.
- b. Implement comprehensive strategies to prevent violent conflict and use collaborative problem solving to manage and resolve environmental conflicts and other disputes.
- c. Demilitarize national security systems to the level of a non-provocative defense posture, and convert military resources to peaceful purposes, including ecological restoration.
- d. Eliminate nuclear, biological, and toxic weapons and other weapons of mass destruction.
- e. Ensure that the use of orbital and outer space supports environmental protection and peace.
- f. Recognize that peace is the wholeness created by right relationships with oneself, other persons, other cultures, other life, Earth, and the larger whole of which all are a part.

**THE WAY FORWARD**

As never before in history, common destiny beckons us to seek a new beginning. Such renewal is the promise of these Earth Charter principles. To fulfill this promise, we must commit ourselves to adopt and promote the values and objectives of the Charter.

This requires a change of mind and heart. It requires a new sense of global interdependence and universal responsibility. We must imaginatively develop and apply the vision of a sustainable way of life locally, nationally, regionally, and globally. Our cultural diversity is a precious heritage and different cultures will find their own distinctive ways to realize the vision. We must deepen and expand the global dialogue that generated the Earth Charter, for we have much to learn from the ongoing collaborative search for truth and wisdom.

Life often involves tensions between important values. This can mean difficult choices.

However, we must find ways to harmonize diversity with unity, the exercise of freedom with the common good, short-term objectives with long-term goals. Every individual, family, organization, and community has a vital role to play. The arts, sciences, religions, educational institutions, media, businesses, nongovernmental organizations, and governments are all called to offer creative leadership. The partnership of government, civil society, and business is essential for effective governance.

In order to build a sustainable global community, the nations of the world must renew their commitment to the United Nations, fulfill their obligations under existing international agreements, and support the implementation of Earth Charter principles with an international legally binding instrument on environment and development.

Let ours be a time remembered for the awakening of a new reverence for life, the firm resolve to achieve sustainability, the quickening of the struggle for justice and peace, and the joyful celebration of life.

***ORIGIN OF THE EARTH CHARTER***

*The Earth Charter was created by the independent Earth Charter Commission, which was convened as a follow-up to the 1992 Earth Summit in order to produce a global consensus statement of values and principles for a sustainable future. The document was developed over nearly a decade through an extensive process of international consultation, to which over five thousand people contributed. The Charter has been formally endorsed by thousands of organizations, including UNESCO and the IUCN (World Conservation Union). For more information, please visit [www.EarthCharter.org](http://www.EarthCharter.org).*

## Annotated Bibliographies

Capra, F. (1991). *The Tao of Physics : An exploration of the parallels between modern physics and eastern mysticism* (3rd ed., expand ed.). Boston, Mass: Shambhala Publications.

Capra synthesizes mystical understandings with modern physics. Using the language of each tradition to illuminate universal truth, this book was valuable for overcoming fragmentation in my worldview.

Cohen, M. J. (2003). *The web of life imperative : A primer of organic psychology : The science of greening human services, education, and alternative medicine, humanities, politics and spirituality*. Victoria, B.C: Trafford.

Cohen's introductory book and course in applied ecopsychology. Easily accessible stories, research and exercises that enable the reader to strengthen intellectual and practical experiences of interconnection. Completing exercises increased my confidence in understanding and applying ecological concepts.

Emerson, R. W., Grossman, R. L., & Laozi. (2007). *The tao of emerson : The wisdom of the tao te ching as found in the words of ralph waldo emerson* (Modern Library ed.). New York: Modern Library.

The work of a great Sage of China is put face to face with the poetry of the Sage of Concord. A favorite book of mine for contemplation; I return to it again and again for wisdom and inspiration.

Leopold, A. (1968). *A sand county almanac, and sketches here and there*. London ; New York: Oxford University Press.

A prime example of ecological understanding exists in this book that has fueled the conservation movement for nearly a century. Leopold masterfully offers his reflections on ecological ignorance and the gifts that come from intimately knowing one's place.

Mayes, C. (2005). *Jung and education : Elements of an archetypal pedagogy*. Lanham, Md: Rowman & Littlefield Education.

Aside from Carl Jung's own writings on education, depth psychology and pedagogy, Mayes offers insight into the practice of teaching, psychology of teachers and students, and how to enliven curriculum through an understanding of archetypes.

Louv, R. (2006). *Last child in the woods : Saving our children from nature-deficit disorder* (Rev., 1st pbk. ed.). Chapel Hill, NC: Algonquin Books of Chapel Hill.

The book that coined the term “Nature-Deficit Disorder” through reflection on Louv’s own childhood and children today. This concept sparked a nationwide movement that has resulted in heightened awareness of the time children spend indoors and what the costs of this are. The “No-Child Left Inside” act was heavily guided by this work.

Nash, R. (1977). *Wilderness and the american mind* (Rev. ed.; 9. print ed.). u.a: Yale Univ. Pr.

A historical account of Americans’ relationship with wilderness as a concept and actuality, from folklore to economics to romance.

Noddings, N. (2002). *Educating moral people : A caring alternative to character education*. New York: Teachers College Press.

Noddings argues for living out morality as caring educators and adults to our children. The primary context for doing so, she argues, is in our relationships with others, and within the context of our lives, not abstractions of “what would do you if you found a wallet...?”

Orr, D. W. (2004). *Earth in mind : On education, environment, and the human prospect* (10th anniversary ed.). Washington, DC: Island Press.

A leader in “ecological literacy,” Orr delves into how our educational system contributes to the ecological problems we face today.

Plotkin, B. (2008). *Nature and the human soul : Cultivating wholeness and community in a fragmented world*. Novato, Calif: New World Library.

Plotkin gathers the best psychology has had to offer to model ideal human development for individuals of all ages, families, communities, and the planet. If everyone would read this book, it holds hope to bring about a creative paradigm shift in how we understand human development.

Richards, G. W. (1999). *The way to see (W)hole: Virtue through acts of contemplation*. Portland, Maine: Motto Citizens.

A tersely poetic contemplative book of adages for global conflict-resolution; based on sage understanding of the nature of consciousness, and principles of universal human development. I refined my understanding of Eastern philosophy through study of this book, and learned how to apply seeming abstract concepts in practical ways.

Swimme, B., & Berry, T. (1994). *The universe story : From the primordial flaring forth to the ecozoic era--a celebration of the unfolding of the cosmos* (1st HarperCollins pbk. ed.). San Francisco, Calif.: HarperSanFrancisco.

Swimme, a cosmologist, and Berry, a self-described “geologist”, set about the task of creating a new story to animate the next age of humanity, one they call the Ecozoic. Shifting from an atomistic, competitive, and degrading society, they call for a new way of life, steeped in how the universe was created and continues to create itself through principles of interdependence and change.

Wessels, T. (2006). *The myth of progress*. Burlington, Vermont: University of Vermont Press; Hanover, NH: University Press of New England.

As an ecologist, Tom Wessels, explains the issues confronting humanity in terms of scientific facts. For example, he demonstrates through the second law of thermodynamics how industrial and post-industrial culture is fundamentally flawed as it causes an increasingly entropic planetary system. Other chapters include “The Myth of the Free Market,” where through using examples of strong ecosystems, Wessels highlights the fragility of our current economic system. I return to this book again and again for the fundamental concepts that need to be understood for the development of sustainable human culture.

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