renewing the face of the earth
A collision of opposites forms the cross of Christ. One leads downward preferring the truth of the humble. The other moves leftward against the grain. But all are wrapped safely inside a hidden harmony: One world, God’s cosmos, a benvolent universe.

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### EDITOR’S NOTE

This edition of Radical Grace anticipates the May 2009, CAC-sponsored, conference in Assisi, Italy: Send Your Spirit to Renew the Face of the Earth. Fr. Richard Rohr (p. 3) and Alastair McIntosh (p. 8) will address eco-spirituality and care of the earth, among other critical global issues. Don Richard Riso and Russ Hudson (p. 4) create a foundation for the work we are called to do by introducing us to our individual Enneagram virtues. With these tools we can—inspired by the Spirit—contemplate what action or actions we are to take in the world to renew the face of the earth.

~Vanessa Guerin
Creation still retains the hope of being freed, to enjoy the same freedom and glory as the children of God.

~Romans 8:21

It is strange that two thousand years after Christians believed that the Eternal Word became ‘matter’ and lived among us (John 1:14), we would still need to justify or validate our love of the material world! Yet we do. After the Incarnation of God in Christ, our universe was supposed to be rearranged. The heavens were no longer to be seen as “up there,” and we “down here.” Henceforth, we were supposed to find ourselves in the heavens! In fact, that is the very point—if you are a recipient of “salvation.”

Yet to this day, most Christians still live inside of a largely pagan cosmology (I mean that quite seriously). It is a telling window into the early stage development, and actual immaturity, of most organized Christianity. One would think that if there were any religion which would really reverence materiality, physicality, embodiment, sexuality, the history and structure of life itself, animal, water, and earth care—it would have been the Christian religion. But not so. Many scientists and doctors tend to do it much better, to be quite honest.

There are actually bishops, priests, and laity who think that concern for this world and this earth is pagan, New Age, trendy, or unnecessary, some kind of diversionary tactic from the real work of exclusively human salvation. From this viewpoint, we are about an “evacuation plan” for humans into the next world. We really have not been too concerned about helping to create the “New Earth” that the Bible promised us in its very final words (Revelation 21:1), or to protect the creation that the Bible starts by calling “very good” (Genesis 1:31). God saw it as inherently good; for some reason, we did not.

For many believers, “green” is not only not Christian, it is secular, silly, unneeded, and in actual competition with the Gospel. Their belief is only for the next world and never for this one, too. They live in a split universe and, for some narcissistic reason, believe they are the only creation that God cares about. Why would that be true? No wonder that the salvation we have offered people is so tiny and ineffective, and barely touches the surface of human and social transformation. No wonder we have been on the wrong side of most social revolutions until very recently.

The Jewish Scriptures were already more wholistic and inclusive than such supposed believers in the Incarnation. Listen to the three young men in the fiery furnace, a Canticle that we Franciscan friars chanted every Sunday and major feast day, but never seem to have comprehended. Below is only a small part of this joyous affirmation of all creation’s power to show forth salvation:

Let the earth bless the Lord, praise and exalt God above all forever!
Mountains and hills, bless the Lord,
Everything growing from the earth, bless the Lord,
You springs, bless the Lord,
Seas and rivers, bless the Lord,
You dolphins and all water creatures, bless the Lord,
All you birds of the air, bless the Lord,
All you beasts, wild and tame, bless the Lord, praise and exalt God above all forever.  ~ Daniel 3:74-81

How could we miss this central point so totally after Jesus himself told us to do God’s will “on earth as it is in heaven” in our primary spoken prayer, the “Our Father”? Buddhism does not believe that God entered our world and took on its clothing and disguise; neither does Judaism, Islam, Hinduism, Confucianism, Taoism, or any of the other religions of the world. The consubstantial union between spirit and flesh is the unique doctrine of Christianity, and the very meaning of its living icon, Jesus. To believe in “the Christ” is to assert this radical union. It is our only real trump card, yet we have refused to play it. It is probably just too good to be true!

Walter Wink said many years ago that there are three basic world views, and then there is the Christian one:

1. The material world view: everything is matter and physical.
2. The spiritual world view: everything is spirit and consciousness.
3. The theological world view: the job of good people is to put matter and spirit together by effort, morality, and ritual, and thereby please God and change themselves into something holy.
4. The incarnational world view: matter and spirit are already and always have been one. They are the two sides of the same coin. We do not make it happen, we learn to see it everywhere and always. It is the Great Epiphany and the major meaning of conversion. This is the real and only Christian position.
It is often said that the “virtues are their own reward,” although for most people, this aphorism is not usually too encouraging. It is not very insightful at best and, at worst, it is misleading—as if there were no better reason to practice the Virtues or to become a virtuous person.

Further reflection has led us to believe that there is a more compelling reason to practice the Virtues in our daily lives, although we must understand that the Virtues are paradoxical: they need our attention and cooperation to be activated in us, although they are really an expression of the non-dual nature of reality. We cannot “practice” the Virtues and claim them as if they were personal achievements. This kind of attainment would be little more than an adornment for the ego and would result in an increase of pride, narcissistic self-aggrandizement, and other ego distortions—the very opposite of a virtuous state.

So what then are the Virtues? How are we to understand them and cooperate with their activation in our hearts and lives? We might also ask, “Why bother? What’s the point of becoming a virtuous person, especially if much of the quest is so much out of our control?”

The reason the Virtues are important is that they are an antidote to the Passions (or “capital sins”) which are the root causes of our suffering and delusions. Oscar Ichazo, the brilliant Bolivian spiritual teacher who first synthesized the modern Enneagram, drew upon the teachings of the nine capital sins from the Desert Fathers, who were the first Christian monastics in the world. He assigned a specific Passion to each of the nine personality types of the Enneagram—and with it, a specific Virtue that was its antidote. Along with these, he assigned a Fixation (or specific mental distortion) and its antidote, a Holy Idea (a Divine perspective on reality). Because of space limitations, we will not go into these other qualities.

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In short, the Virtues are essential qualities of the awakened heart and are embodied in us when we are abiding in Essence. As a person loses awareness and presence, falling away from Essence into the trance of the personality, the loss of contact with the Virtue causes the person’s characteristic Passion. While everyone has the capacity to embody all of the Virtues, one of them is central to the soul’s identity, so the loss if it is felt most acutely. The person’s ego-self is most preoccupied with recreating it, although in a futile, self-defeating way.

By getting out of the way of Grace, we actively allow the Virtues to arise in us, and with that, our hearts are reoriented away from personality and toward the Real. We are able to reconnect with ourselves and others, and allow the awakened heart to be a conduit for Grace and healing to flow into the world. Thus, the Virtues are a sublime channel by which we and the world are transformed. They are not simply “their own reward” but are the markers and proofs of Grace and transformation.

We will briefly comment on each of the nine traditional Virtues of the Enneagram as specified by Oscar Ichazo. (We have felt that in some instances Ichazo did not use the most appropriate English word to express what he seems to have in mind, so we have made substitutions for the sake of clarity.)

The Virtue of type One is Serenity. When we are abiding in Essence, we accept reality exactly as it is, including all of the conditions and limitations we are presented with in each moment. We are deeply relaxed and allow the energies of life to flow through us without resisting them or trying to control them. As a result, there is no feeling of effort or of striving after a better, more perfect reality (which exists only in our minds and imaginations). Serenity allows us to be calm and balanced, regardless of the externals vicissitudes of life.

The Virtue of type Two is Humility. When we are abiding in Essence, we do not require the approval of others or from our own self-regard. Humility results from being without self-reflecting. It is not self-disparagement as some of us have been taught, nor is it not taking satisfaction in our work or relationships. When we are really present and awake, issues about our identity and self-worth do not arise. Without attempting to be anything in particular, we are humble, able to love others disinterestedly, without any thought of self, of being thanked or repaid, or even of having the appreciation of others.

The traditional Virtue of type Three is Truthfulness, but we think that Authenticity is more accurate. When we are abiding in Essence, we speak and act with complete truthfulness and we see that any untruthfulness would cause us to detach from our True Nature. We realize that the most important thing in life is to be ourselves—deeply, completely, and authentically—not to be what others want us to be. We understand that nothing else but being authentic will satisfy us, no matter how many accomplishments we pile up or public acclaim we achieve.
The Virtue of type Four is **Equanimity**. When we are abiding in Essence, we are touched and affected by our experiences, often in profound ways, but we are not lost or swept away by emotional reactions. This gives healthy Fours the ability to embrace life without being “storm-tossed” by every feeling. With equanimity, even negative experiences can be made into something positive. Equanimity allows us to find purpose and meaning in knowing that the soul is able to transform every experience into something worthwhile.

The Virtue of the Five is **Detachment**, but we think **Non-Attachment** is more accurate. When we abide in Essence, “non-attachment” contains no hint of detachment; in fact, it requires a radical immersion in reality, the very quality referred to by the familiar spiritual injunction to “be in the world but not of it.” Non-attachment also allows us not to cling to anything, inner or outer. We no longer need to cling to the endless activity of the mind as a source of identity and orientation to the world.

The Virtue of type Six is **Courage**. When we are abiding in Essence, we are truly “fearless.” True courage arises in the heart when a person is present and deeply grounded in the moment, abiding in True Nature. We realize the depths of the real support and inner strength that we actually possess, and see that they naturally arise every time they are needed. We see that we are supported by the tremendous solidity of Being itself—so much so that we can totally accept not knowing the outcome of things. We have the courage to act in the moment, with the real faith that comes from our personal experience of the Real.

The Virtue of type Seven is **Sobriety**. When we are abiding in Essence, we feel awake, sober, and in contact with our immediate experience. We see the real world in exquisite detail with a quiet satisfaction. Everything is wonderful, but we are not swept away in our enthusiasms because we are fully, mindfully here. Sobriety also brings with it a sense of gratitude, a deep and abiding joy in the miracle of life. Very healthy Sevens are grateful for everything they have. Every experience that falls on a clear, sober consciousness can fill us with joy.

The Virtue of type Eight is **Innocence**, but we think **Mercy** is more accurate. When we are abiding in Essence, we act with a natural tenderness and mercy toward ourselves and others. Mercy is an expression of “tough love,” which stands against our personality’s desire for revenge or to see others suffer for their wrong actions. Mercy melts the hardened, armored heart, and heals past actions through gentleness and forgiveness since there can be no mercy without real forgiveness.

The Virtue of type Nine is **Action**, but we think **Engagement** is more accurate. The Virtue of Engagement does not refer to doing things physically; rather it is our embracing of reality—our willingness to throw ourselves wholeheartedly into life and into the unfolding mystery of existence. When we are abiding in Essence, we see that everything in reality grows and changes, and our soul is no different. We see that transformation is more rapid if we show up in our lives with presence, heartfulness, and full-throttle receptiveness. When our heart is awakened by the Virtues, we see that the self is being reshaped and transformed every moment—and we fully participate in this transformation.

Needless to say, there is much more to be understood about all of the Virtues. But by allowing our hearts to be reoriented away from the effects of the Passions, Fixations, and the personality structures that we usually take ourselves to be, the Virtues allow rebirth and transformation to begin and deepen—and to have a positive effect on the world around us. But we must always remember the paradoxical nature of the Virtues: it is not we who are “virtuous,” but we whose main Work is to consent to Virtue taking over our hearts and lives.

Don Richard Riso and Russ Hudson are leading teachers and authors in the Enneagram field today. They are co-founders of the Enneagram Institute, and can be reached through their website at www.enneagraminstitute.com. Russ Hudson presented with Fr. Richard Rohr at the Year Beginning 2009 conference—Laughing and Weeping—in Albuquerque, New Mexico. For conference follow-up information, please visit www.cacradicalgrace.org.
Growing up in West Palm Beach, Fla., I felt at home in the natural world—swimming in the ocean, climbing trees, exploring woods—appreciating and playing on Earth, but with no consciousness of caring for Earth. The concept of responsibility came in the early 1970's when I was introduced to Organic Gardening and Farming magazine and began studying and practicing these methods in a large backyard garden near Catholic University in Washington, D.C.

A maxim of organic gardening is “to give back to Earth as much, or more, than you took from her.” I really resonated with this call and the understanding that nature doesn’t waste, doesn’t leave soil bare, doesn’t monoculture—and neither should we. Because healthy gardens begin with healthy soil, I resolved never to harm the soil with chemical fertilizers or pesticides. I became a composting and mulching acolyte, pouring over The Encyclopedia of Composting as my bedtime reading. I rejoiced in the multitude of earthworms in the soil and compost bin, learned how to “double-dig” the garden to loosen the soil down 22”, and studied companion planting (“who gets along better with whom”) and inter-planting. It was such a respectful approach to the vegetables and their needs.

Each time we moved around the D.C. area, my compost bin came with me, and when I moved to South Central Texas in 1992, the worm bin accompanied us—the last item squeezed into the U-Haul. Ah, Texas!—where the topsoil was about one-half-inch deep, no earthworms in sight, droughts, floods, unbearable summer heat, winter ice, highly alkaline soil, and very Republican.

Starting over with the soil, we composted vigorously, planted cover crops, brought in truckloads of county mulch, and discovered a treasure trove of horse manure at the local fair grounds.

Sixteen years later, the soil is much improved, and the gardens are fairly productive, but not like the former farmland garden in Washington. During these years, I also began to study Permaculture and the new cosmology, shifting my consciousness and daily practices.

Through the new cosmology, I learned the scientific story of our unfolding Universe: that it is 13.7 billion years old, still expanding, with billions of galaxies. To try to grasp the magnitude of deep time and space, I walked the Cosmic Pathway at the Rose Center for Air and Space in New York. Each step down a long spiral walkway equals about 75 million years in the story of the Universe. At the bottom, we see that all recorded human history is equal, at this scale, to the width of a single human hair!

As I ponder this, my human life and work appear so tiny, so imperceptible, and so potentially inconsequential that it would be easy to shrug off any responsibility for the whole. And yet, human impact, especially in the last 300 years, has been so damaging to Earth’s life systems that our planet is in peril. When I place my life within the twin contexts of life’s emergence out of deep time and space and our current path towards self-destruction, I am brought to the actions in my daily life. How can I live more responsibly on these seven acres that also are home to Santuario Sisterfarm, an ecospirituality center co-founded by Latina women and Dominican Sisters? Santuario (“sanctuary” in Spanish) Sisterfarm is dedicated to cultivating diversity—cultural diversity and biodiversity—and living in right relationship with the whole Earth community.

Cultivating cultural diversity opens us to many wisdom traditions and ways of being, especially those of the Borderlands. Board President Maria Antonietta Berriozaabal shares the concept of lo cotidiano, denoting the daily work done by women in providing the ongoing necessities of families: cooking, cleaning, washing clothes, and caring for children and gardens. Maria recalls her parents using lo cotidiano to teach her that a big part of being Catholic is to realize that everything you do in life is important, no matter how small—a way of reverencing the sacred in everyday life. How can we practice lo cotidiano—tending people and planet with reverence?

I find some answers in the study of Permaculture, a design system for sustainable human communities modeled on Earth’s ecosystems.
Its ethical framework is “Earth Care, People Care, Fair Share,” and their interconnections. We incorporate these principles in our daily routines at Santuario Sisterfarm, beginning with our outdoor morning prayer, which honors life in each of the four directions, the four seasons, and the ways Divine Mystery is reverenced around the globe. At the end of the prayer we make a profound bow to the Sacred (in the Dominican tradition) and place both hands on the ground, offering gratitude to all the microscopic life in the soil without which there would be no fertility, no food.

In keeping with the Permacultural understanding that there is no waste in nature, we recycle all our fruit and vegetable scraps, coffee grounds and egg shells. These are either fed to the worms, to the chickens, or added to the compost bins.

In drought-prone South Central Texas, we practice water conservation. A 5,000-gallon water tank captures rainwater off the house roof and smaller barrels collect rainwater off outbuildings, all used to irrigate gardens. We recycle all the water used inside the house (except toilet water) through a grey water system that irrigates our “Turtle Island” orchard. Mindful of the health of the soil, we never use bleach or other toxic cleaning materials. Instead, we buy non-toxic, biodegradable cleaning products from Seventh Generation and other green vendors.

When I consider the millions of women in economically poor countries hugging a few gallons of water on their heads every day for cooking and drinking, I find it unconscionable that we in the U.S. flush millions of gallons of fresh, potable water down toilets. At Santuario Sisterfarm, we have three composting toilets that use no water and two low-flush toilets that use 1.6 gallons per flush. To cut down even further, we encourage guests, with our “Urine Charge” signs and handy containers, to capture their own “liquid gold!” Said contents are poured onto the compost bins or diluted and used to fertilize trees and shrubs.

We drink coffee and tea from Equal Exchange, one of the first fair trade companies, and try to buy as much locally grown produce as is available. Photovoltaic panels power our 20’-diameter yurt meeting space. A recently installed geothermal heating and cooling system has reduced energy consumption, as have energy efficient windows, appliances, and compact fluorescent lights. We unplug electronics when not in use, dry clothes on a line, and make multi-purpose trips into town in a hybrid car. At year end, we use online carbon calculators to measure our carbon footprint and mitigate it with “offset” contributions that help build clean renewable energy projects, such as windmills on tribal lands; we commit ourselves to find ways to further reduce our carbon emissions the next year.

Small steps all—focused on lo cotidiano. National and international steps are urgently needed. But only when each of us begins to change our daily behaviors will all of us begin to walk away from the brink of disaster and toward a sustainable future.

Lo cotidiano—tending Earth and all beings.

Carol Casson, Co-Founder and Co-Director of Santuario Sisterfarm, an ecospirituality center in the Texas Hill Country co-founded by Dominicans and Latinos from the Borderlands. In addition, she is the founding Director of Network, a national Catholic social justice lobby in Washington, D.C., and of Partners for the Common Good. Carol is the author of numerous articles and chapters in books, as well as Permaculture: Finding Our Own Vines and Fig Trees.
Today very few informed scientists doubt that climate change is happening, that it is serious, and that it is largely, though not entirely, of our own doing. The more that we pour greenhouse gases such as carbon dioxide into the atmosphere, the more we advance toward “tipping points” that may release even greater emissions from the Earth’s crust in a vicious cycle of “unstoppable” global warming.

Consequences are likely to include the flooding of coastal cities, the loss of some of our best agricultural land, and intense storms. Present international efforts are pitched toward trying to contain global warming to within 2 degrees centigrade. But increasingly it looks as if we may have 4 degrees by the end of this century. The models suggest that if this happens, that great lung of the Earth, the Amazon rainforests, will start to dry out and die off.

Why, in that case, are the world’s leaders not doing everything they can to take fossil fuels out of our economy? There are three reasons:

1. Not all parts of the world will suffer equally. For example, while rain-fed agriculture in Africa is likely to suffer by up to 50% due to increasing drought, increased rainfall in North America may, in the early decades of this century, actually boost crop yields by up to 20%. Little wonder that George Bush did nothing!

2. Time scale. The existing climate will probably outlast many of us. The worry is more for our children and grandchildren. That’s off the Richter scale of most people’s voting priorities.

3. The cost of seriously getting to grips with climate change is colossal, given the degree to which our western lifestyle is addicted to carbon. The British government’s Energy and Climate Change Secretary put it bluntly. He told Parliament: “We all know that signing up to an 80% target in 2050, when most of us will not be around, is the easy part. The hard part is meeting it….”

It’s a profoundly depressing scenario. The root problem is that we’ve collectively got our heads stuck mindlessly in the trough of consumerism. Everything we buy has its cost in energy and therefore in greenhouse gas emissions. We continue mindlessly consuming not just out of justified necessity, but because the soul itself has been colonized. From a tender age children are encouraged by powerful tools of marketing to think that to have is to be. Consuming has therefore been grafted into our very identity. Throughout the 20th century marketers hijacked the tools of depth psychology that were intended to heal the psyche and twisted them toward motivational manipulation. Vance Packard’s pioneering book, *The Hidden Persuaders*, is an excellent account of how this was done.

I define consumerism as consumption beyond the level necessary for dignified sufficiency. It has driven not only climate change but also the financial bubble now collapsing into the credit crunch. What’s happened at a spiritual level is that we’ve worshipped for too long at the altars of Mammon. Metaphorically speaking, Mammon has now transmogrified that hollow, fire-filled stone god, Moloch. And Moloch’s price for sustaining our addiction to materialism is that he swallows up the children. We mortgage our economy, children and planet alike.

These, then, are momentous times. But spiritually their lesson is not unprecedented. Consider Jeremiah. He knew that it was too late to save his people from Babylonian captivity. But they didn’t want to know. They put him in the stocks and threw him down a well to try and silence his rantings. It didn’t save them, and to rub salt in the wound Jeremiah even saw their fate before Nebuchadnezzar as a necessary calling back to their senses.

What’s most striking is that Jeremiah held out no worldly optimism for Israel, but he never gave up spiritual hope. In the darkest hours, as Jerusalem was under siege, he went out and bought himself a field to demonstrate his faith that, one day, the nation would be reconstituted.

Maybe that’s a lesson for us today. We must do everything in our power to try and stop climate change, or at least, to slow it down and to adapt. That’s the outer work at political, economic and technological levels.

But we must match this with inner work from the soul. Culturally, we have to heal the loss of spirituality that has left us wide open to the blandishments of marketing and the creation of an idolatrous economy—one that constantly stimulates wants rather than serving fundamental human needs.

If the worst case Jeremiads come to pass, maybe we will have to think of ourselves as planetary hospice workers. Like those whose loving service is to help the terminally ill come to terms with the final stage of their
PRAYER TO THE HOLY SPIRIT

Come Holy Spirit, breathe down upon our troubled world. Shake the tired foundations of our crumbling institutions. Break the rules that keep you out of all our sacred spaces, and from the dust and rubble, gather up the seedlings of a new creation.

Come Holy Spirit, enflame once more the dying embers of our weariness. Shake us out of our complacency. Whisper our names once more, and scatter your gifts of grace with wild abandon. Break open the prisons of our inner being, and let your raging justice be our sign of liberty.

Come Holy Spirit, and lead us to places we would rather not go. Expand the horizons of our limited imaginations. Awaken in our souls dangerous dreams for new tomorrow, and rekindle in our hearts the fire of prophetic enthusiasm.

Come Holy Spirit, whose justice outwits international conspiracy, whose light outshines religious bigotry, whose peace can halt our patriarchal hunger for dominance and control, whose promise invigorates our every effort: to create a new heaven and a new earth, now and forever.

~ Diarmuid O’Murchu

life's journey, the world will need people who can bring similar wisdom to bear on what happens to the Earth. We'll increasingly need such spiritual skills to be present with loss, failure, suffering and death, yet to hold fast to the resources that can constantly give life from within.

After all, we're in this fix because we have become unhinged from right relationship to the Creation. Spiritual deepening alone can set us right. Secular ideologies have had their fling and created desolation. A turning point is upon us. We must take up this heavy burden of planetary awareness … and grace will transform it into a precious burden.

In so doing we might have to accept a time scale that is God's rather than human, for we are talking here about metanoia—transformation of the soul. Our task is to open our minds and hearts to the kind of spiritual ecology toward which great lovers of the world like Clare and Francis pointed us.

We must let go of misplaced optimism, but never lose hope. For somewhere out there, even in the depths of winter, the snowdrops and the crocuses are pressing through to blossom once again. The seeds of Eden wait to be reset.

For in spite of all our languishing complicity and hypocrisy, this is holy work to which each one is called. As Ezekiel put it (36:33-6):

"On the day that I cleanse you from all your iniquities … they will say, 'This land that was desolate has become like the garden of Eden' … and you shall know that I, the Lord, have rebuilt the ruined places, and replanted that which was desolated; I, the Lord, have spoken, and I will do it.'"

Alastair McIntosh is Visiting Professor of Human Ecology at the University of Strathclyde in Scotland. His books include Soil and Soul, Rekindling Community, and Hell and High Water: Climate Change, Hope and the Human Condition. Many of his publications are online at www.alastairmcintosh.com. Alastair will be presenting at the May 2009, CAC-sponsored conference in Assisi, Italy, Send Your Spirit to Renew the Face of the Earth. For more information on the conference, please visit www.cacradicalgrace.org.
CLIMATE CHANGE AND THE ART OF SELF-TRANSFORMATION

BY KURT HOELTING

It was a change that had been brewing in my soul for longer than I care to admit. As both a contemplative and an activist, I had struggled for years to make sense of the widening gap between my convictions about climate change, and the way I was actually living my life. In my hybrid career as a meditation teacher and wilderness guide, I watched with dismay as jet travel carried my carbon footprint to lofty heights, even as I worked to reign in my daily use of energy in the rest of my life. The contradiction between these two misaligned efforts cancelled out my best intentions, and injected a sense of futility into an otherwise satisfying livelihood. Bewildered by my complicity in the emerging climate catastrophe, and weary of waiting for others to change first, I reached a crisis of conscience that I could no longer ignore.

As a student of Zen, I do not consider myself a praying man—not in the usual sense. But my desire to close this gap in my life took on the fervency of prayer. I could no longer stay on the sidelines, yet neither could I find a realistic way to untangle myself from my high-carbon lifestyle. I knew my unborn grandchildren were watching, and the day would come when I would face their questions. “What did you do, back in 2008, when the climate crisis was first spinning out of control? What part did you play in trying to save our future?”

While there are no easy answers to these questions, the genesis of a personal response came unexpectedly, when I had almost given up finding any answers at all. It ambushed me one morning while I was having breakfast with a friend. Weary of the treadmill of travel I was on, and feeling dislocated from home, I found myself musing to my friend, “What would it be like if I didn’t get into a car for a year? What would it be like to spend an entire year within walking distance of home?” Just the words themselves brought a wave of relief. The resonance of an audacious possibility echoed all the way down to my bones. Rarely has an idea taken such immediate hold of my imagination. In the days and weeks that followed I could not let it go. I knew I had already set out on one of the grandest adventures of my life.

It took some time to get the pieces in place for such a major shift. I had travel commitments several months out that had to be fulfilled. I had to re-imagine my livelihood structure in more local terms, negotiate logistical considerations with my wife and family (who did not necessarily share my enthusiasm for the idea), buy a new bicycle (no simple assignment these days!), learn a complex regional bus system, and start getting myself back in shape. My intent was not only to go car-free, but to live a more radically local life. I drew a circle on the map 100 kilometers in radius with my home in the center that described with remarkable fidelity the contours of the Puget Sound basin, and vowed to stay within this circle for the entire year. I pored over local maps, and soon had an alluring list of excursions planned under my own power to every part of my circle, on foot, by bicycle and sea kayak. Even before I’d begun, I could feel my sense of powerlessness about climate change beginning to lift, transforming into anticipation and purpose.

For the first time in ages, I felt fresh winds in my sails. My goal was straightforward. I wanted to turn the necessity for change into an adventure. I wanted to inhabit this year as if it were the last I had to live, and as if the very future depended upon it. Which in fact it does.

On the shortest day of the year in 2007, I parked my car in the garage for twelve months, and my adventure began. I chose to start on the Winter Solstice because of its ancient symbolism of darkness turning back toward the light. As I write these words, I am in the closing weeks of the year, and it has indeed been filled with discovery, both inner and outer. I have ridden my bicycle to every part of my circle, pedaling the equivalent of a journey across North America. I have covered a thousand miles on foot exploring my wider neighborhood, and have paddled my kayak 400 miles in a circumnavigation of the Puget Sound basin. By exploring my home terrain at a human pace, I have watched the scale of my local geography...
literally expanding before my very eyes, taking on new dimensions and depth, while dramatically shrinking my carbon footprint in the process. My sense of intimacy with the place I call home has grown in equal proportion. I’ve watched my backlog of despair leavened with a more confident resilience and hope, and with the spiritual satisfaction of living in greater alignment with the values I most deeply care about.

Along the way much has changed in the world outside my circle too. My impulse to embrace hope and change has been more widely shared than I could have imagined. Barack Obama has been elected President of the United States, and the political climate has shifted overnight in the direction of more decisive action on climate and energy policy. Creative responses to the climate crisis have moved from trickle to torrent in the culture at large. A spirit of possibility for change has been unleashed around the entire globe, even as a concurrent financial meltdown has shaken our false confidence in the economics of limitless growth.

For all this resurgence of hope, the way forward remains as daunting as ever, on every level of our lives. The climate emergency continues to accelerate in lock-step with our rising carbon emissions. Nor do I have any illusions that my year in circumference is more than a first step in my own transformation. But I am astonished by what I’ve learned, and I know my efforts have rippled out into the lives of those I have met along the way. How else does change really happen anyway? I am filled with gratitude that I can be part of such a defining moment in our history.

Perhaps this is the hidden gift that climate change offers us. It has delivered a potent motivation to re-examine our lives, to make changes that we have resisted for too long, and to do so with a boldness we didn’t know we had. It has brought an unmistakable sense of urgency, but also of renewed hope and confidence that authentic change is possible, and that our lives can be richer and more grounded as a result. From a spiritual perspective, the climate crisis may be our last, best chance for a broad-based realignment of values that can finally extend our ethical regard into the deepest heart of the living world.

Such a massive realignment of values is inconceivable without the leadership of the faith community. Our climate emergency is not fundamentally a crisis of technology or public policy. It is a crisis of meaning, an erosion of moral courage. We cannot simply “jump the chasm” with a technological fix, leaving unchallenged our destructive habits of unbridled consumption. Climate change upends our most cherished assumptions about what it means to be human in a world of exquisitely fragile balances that now threaten to expel us from the fabric of life itself. It is in this sense that climate destabilization is a religious crisis. Our pursuit of global climate initiatives and sustainable energy technologies cannot succeed without a commensurate change of heart, one that expresses itself in the nuts and bolts of how we live. Climate change is thus an invitation for people of faith to step up as full partners in the evolution of culture by demonstrating what the art of self-transformation actually looks like. The life of everything worthy of our love now hangs in the balance.

Kurt Hoelting is a meditation teacher and wilderness guide, and he also teaches Mindfulness-Based Stress Reduction (MBSR) to veterans and staff at the VA Hospital in Seattle. He is currently at work on a book for DaCapo Press about his experiences during the year. His blog and retreat schedule are available at www.insidepassages.com.

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EATING SUSTAINABLY

Did you know that by eating more sustainably you can reduce global warming, improve your health, help feed the poor, and improve the environment? Here are seven practices for eating sustainably:

1. **EAT LOCALLY**
   Consider joining your local food co-operative or community supported agriculture (CSA) program. Shop at your local growers market.

2. **EAT ORGANIC**
   By eating organic foods, and knowing where they come from, you can eliminate consuming added pesticides and petrochemical fertilizers.

3. **BUY IN BULK**
   When you buy foods in bulk, you minimize the use of excess packaging and other consumer waste.

4. **BE INFORMED**
   Consider reading *Omnivore’s Dilemma*, by Michael Pollan, and check out the internet for other excellent resources.

5. **PREPARE YOUR OWN FOOD**
   Avoid eating highly processed foods by preparing your own mindfully chosen foods.

6. **EAT LOWER ON THE FOOD CHAIN**
   Consider eating less animal protein or following a vegetarian or vegan diet.

7. **GROW A GARDEN**
   Growing your own garden can be very satisfying. If you don’t have space for a garden, consider joining a garden co-operative.

List assembled by Annette O’Connor, a Board Member of the CAC.
A SPIRITUALITY FOR THE 21ST CENTURY

By Paula Gonzalez, SC

“O

ly when I saw it from space, in all its ineffable beauty and fragility, did I realize that humankind’s most urgent task is to cherish and preserve it for future generations.” Looking in awe at Earth floating in the blackness of space was obviously a deeply spiritual experience for the German astronaut Sigmund Jahn. This is evident in his expression, which is almost poetic—hardly the language expected from a test pilot or engineer, which most of the early astronauts were. So moved was he that the immediate—and urgent—agenda he saw for humanity spoke loudly of the Gospel values of “loving God and our neighbor”—our ‘neighbor’ now including the whole of God’s magnificent Creation! This statement is a wonderful way to understand that the ecospirituality that has been emerging over the past three decades is the invitation of the Eternal Creator to each of us to become “co-creators” of the world we pray for daily: “Thy will be done on Earth....”

There is a growing realization across our planet that we humans are at a unique moment in human history. Back in 1965 the Vatican II Constitution on the Church in the Modern World indicated that this type of “big picture” approach was essential to living a mature Christian life: “At all times the Church carries the responsibility of reading the signs of the times and interpreting them in the light of the Gospel, if it is to carry out its task.” Very recently thousands of members of the global civil society have come together to produce the Earth Charter, which identifies “values and principles for a sustainable society.” The opening words invite us to realize the unprecedented moment in history into which we have been born: “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.”

Which of these will engage our energy? Will we focus on the peril and live in paralyzing fear, or will we reflect seriously on “the signs of the times” and accept God’s invitation to “choose life that we and our descendents might live”? Are we willing to face the fact that today we can see more the “fragility” than the “beauty” of our planet? Daily we see reports of diminishing supplies of oil and water, toxic pollutants in air and food, disappearing species, and the many effects of climate change: crop-withering heat waves, advancing deserts, hurricanes and tsunamis, melting glaciers, etc. All of these are causing suffering—disproportionately among the less fortunate, both human and non-human. When we read the newspaper or watch the TV news, can we learn to become aware that “everything is connected to everything else” and thus, that whatever happens anywhere affects what happens everywhere?

This interconnectedness and interdependence is the fundamental design of the created Universe—mirroring the basic Community which is the Trinity. In addressing the World Council of Churches, Klaus Toepfer, the head of the United Nations Environment Program, stated well the invitation to the integrative, contemplative spirituality to which our times are calling us: “We have entered a new age—an age where all of us will have to sign a new compact with our environment ... and enter into the larger community of all living beings. A new sense of communion with planet Earth must enter our minds.”

Teilhard de Chardin perhaps gives us the key for how to do this: “For those who know how to see, nothing is profane; everything is sacred.” Like the astronauts, who saw our Earth in a whole new way, we are called to see that everything in God’s Creation is holy. What could happen if humans learned to realize that we live “on holy
ground”? In approaching the practical task of striving to achieve “sustainability” it is important to realize that there can be no technical solution to what is, at root, a spiritual problem. There is no doubt that we need advanced technology to move our society away from the use of fossil fuels, to transform agricultural methods, to build zero-energy buildings and to develop less polluting transportation systems. Moving in these directions can also provide opportunities for human creativity, reduce pollution and waste, create new jobs, and ensure economic stability. However, it is imperative that we realize that “the American Dream” (which so many people in the world would like to have) is already considerably beyond Earth’s “ecological capacity.” Only because 70% of Earth’s people use much less than Earth can “afford” are the lifestyles of the “rich world” possible. Considering the entire human population today, humanity’s “ecological footprint” is already about 30% beyond Earth’s capacity. Obviously, this is not sustainable into the future, even for the rich.

Ecological restoration and social justice in the human community are two sides of the same coin, so active commitment to either contributes to the healing and restoration that is so needed in our troubled world. It is becoming clearer every day that there must be a huge transformation—especially of attitudes and lifestyles. The first step in motivating us to choose a greatly simplified lifestyle is conversion of heart and mind—developing “a new way of seeing.” Only then can we commit—with a smile—to be active participants in the enormous changes which are inevitable in the near future. As we make lifestyle changes—drive less, walk, advocate for mass transit, eat less meat, buy food from local markets or grow it ourselves, compost our kitchen scraps, insulate our homes, install solar hot water collectors, change our light bulbs, become active, informed citizens—we are invited to realize that these actions can be acts of worship. They are daily steps in our spiritual journey through which, as St. Paul suggested, we can “pray always.”

Co-creators of a transformed Earth can find a guide in the major principles of the Earth Charter: 1) Respect and care for the community of life; 2) Ecological integrity; 3) Universal human rights; and the struggle toward 4) Democracy, nonviolence and peace. (This “peace” is not just “the absence of war”—what we have usually thought of as peace—but a never-before-realized state of harmony throughout the “sacred Earth community.”) It is clear that these are all “Gospel values”—stated in 21st-century terms.

Each of these principles is made more specific in 16 statements which outline practical steps that can be taken to live these principles, and which can provide fruitful material for meditation (www.earthcharter.org). Our Evangelical sisters and brothers have contemporized much of their outreach by asking “What would Jesus do?” It might be helpful to all of us to consider this question. What if God had chosen to become an “earthling” in the first decade of the 21st century—instead of in 1st-century Palestine? What would Jesus be like? What would his message be to us today? Perhaps he would challenge us with the closing words of the Earth Charter: “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.”

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If we don’t understand creation correctly, we can’t hope to understand God correctly.
~ St. Thomas Aquinas
Last year the curtain fell with a bang on a style of capitalism that drained the world of two fundamental sources of security: energy and capital. The crash of the financial system was sudden, unseen, scandalous, and not predicted by those in charge. But behind the scenes it was building. Its cause basically was greed, stupidity, and an infectious unwillingness to consider the consequences of that crazed investment alchemy, that in a few toxic eruptions, turned money and hopes into dross.

The “system,” say the “experts,” will ultimately raise itself up from its monetary morass. But the world also knows that it could have been avoided. The lives of many millions of people were unnecessarily and disastrously impacted. No one—those with influence or whistleblowers down in the ranks—cried “stop” to practices that were clearly and abundantly immoral.

The one positive effect on consumers was that fuel became cheaper because demand decreased. For the world of commerce, decline in the use of oil reflected deep slumps in business, which meant, in great part, a forced decline of consumer ability to acquire both the needless and necessary things of life. Some, however, who study jobless rates, trade balances, technological competitiveness, energy consumption, and quality of education, had seen the writing on the wall for years. Finance aside, they were deeply worried that the U.S was in the beginnings of decline. The country was sending its manufacturing abroad, was doing almost nothing to improve the education of those most needing it, and was outsourcing high technological services because China, India, and other countries in the East and South could do it cheaper. Thus, the U.S talent pool was being allowed to waste away. Added to this was the financial crash and, even more ominous, depressing, and long-term, the world’s energy future.

Late last November the International Energy Agency (IEA) released its 2008 World Energy Outlook (WEO), an always eagerly awaited annual document that tells the energy community what they can expect in energy availability over coming years. In that report IEA said that the current and projected use of fossil fuels will create an unsustainable planet beginning around 2030. Sustainability is a term that means almost nothing to those who control capital because the economics they practice fails to relate finance to resource depletion, to the condition of the planet, and to what people actually do. But the report said Western lifestyles would have to change. The current rates of energy use and the rate of global warming will produce a barely livable industrial world. One might also add “chaotic.”

As energy expert Michael Klare, a professor at Hampshire College and author of Rising Powers, Shrinking Planet recently put it, “No other major power relies on getting its energy from oil. Making that…especially daunting is this: the world supply of oil is about to contract. The competition for remaining supplies will then intensify, while most of what remains is located in inherently unstable regions, threatening to lead the U.S. into unceasing oil wars.”

That scenario, however, doesn’t have to play out. For it not to, the WEO report says, the nations will have to commit an enormous amount of investment toward new energy sources. Will they? No one knows but it’s likely it will not be enough. What we can all look forward to are very difficult times. “The least among us,” already numbering in the high hundreds of millions, will be hurt the most. Meanwhile, population will increase. That alone is sufficient notice that we be ready to help, as we too will likely be living with less. Hard to imagine this happening in America.

What we know is that the U.S. will be trying very hard to maintain its standard of living. Nuclear plants will be built, more energy will be generated by the sun and the wind, vast quantities of plant life will be grown.
SEVEN SIMPLE SUSTAINABLE STEPS

STEP 1
Wash clothes in cold or warm water, not hot, and dry them on an outdoor clothesline.

STEP 2
Set your water heater thermostat to 120 degrees, and wrap it in an insulating jacket.

STEP 3
Buy energy efficient compact fluorescent bulbs to replace incandescent bulbs.

STEP 4
Use appliances with the Energy Star logo, and install low-flow shower heads and toilets.

STEP 5
Recycle paper, plastic, and glass and purchase minimally packaged and reusable goods.

STEP 6
Caulk, weather strip, and insulate around windows and doors.

STEP 7
Walk, bike, carpool and utilize the public transit system whenever possible.

List assembled by Anita Amstutz, CAC Action Coordinator and Mennonite Pastor. For more ideas, Google tips on “Living Sustainably.”

to be used as fuel, and record amounts of American coal will continue to be mined, shipped, and burned to supply electrical power—while generating greenhouse gases. Meanwhile, the world will continue to warm. The WEO says that if little is done to mitigate the warming, global temperature will rise 6 degrees F by 2030. If as much as possible can be done, the increase will be only two degrees lower but still enough to affect the climate and the sea level.

One thing seems clear from all this. It is that the era of different countries adopting separate energy policies, whether we know it or not, is over, in the way that cheap oil is also gone forever. It is inevitable that, as the cost of fossil fuels rise, the poor countries will suffer the most because they will be less able to afford those fuels. Agricultural resources will be the first to be affected. Countries will be faced with the choice of cooperatively allocating energy resources among themselves as shortages of fossil fuels grow. Shortages, of course, will force innovations in energy conservation and alternative sources which will be all to the good. Nuclear power will grow rapidly but will carry with it high costs and the environmental problems of disposal and safety. A new world order of energy regulation will be difficult to achieve, but the alternative is chaos, conflict, and great deal of human suffering. The big political question right now is whether world leaders, beginning with Barack Obama, will level with the people about the difficulties that lie ahead and how they plan to coordinate all that needs to be done.

What seems most needed is a new view of economics that will serve as a better guide to thinking about energy. One could do no better than to get to know the ideas of the late economist Nicholas Georgescu-Roegen (1902–1992) of Vanderbilt University which are described in a book entitled Entropy Law and the Economic Process, published by Harvard University Press in 1971. Georgescu became convinced that classical economics was not sufficient to adequately guide policies relevant to the laws of nature, most prominently the second law of thermodynamics (the entropy law), which says, in short, energy lost can never be regained.

He proposed instead a “bioeconomics,” or “ecological economics,” that related economics to the biological limits of the earth and to what people actually do. Classical economics failed to take into account that those resources, removed or degraded by humankind’s needs, were limited. “Classical mechanics,” wrote Georgescu, “is mechanistic because it can neither account for the existence of enduring qualitative changes in nature nor accept this existence as an independent fact.” Fortunately, Georgescu left what is now a growing legacy of economists who have taken up his cause. The hope is that bioeconomics will become standard fare in the education of future economists.

What should be the agenda for those of religious faith so that they can make a difference? There will be plenty of opportunity: feed the hungry, clothe the naked, take in strangers, or help someone else do them. Also, get informed about the stakes that lie ahead. Keep up with the best thinking. Find and turn over hidden stones for new pearls of insight. Join organizations already active in trying to forge policies that minimize future regrets. In other words, find the right things to do and act on them. They are not difficult to find.

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work for International Peace Initiatives (IPI) and recently returned from a trip to Africa working with my friend and colleague, Dr. Karambu Ringera, founder and executive director of IPI. International Peace Initiatives is a non-profit/NGO that works in Kenya and, together with our partners, we are building five Amani Community Homes for children who have been orphaned by AIDS. Amani means peace in Swahili. Our first home is nearing completion and our next two are in the beginning stages.

IPI strives to make the Amani Homes sustainable on multiple levels. As many who work in Africa know, one of the big challenges is to create programs that are sustainable within their communities. Many big ideas, including hospitals and schools, have been conceived and established only to fall into disrepair when left to the local community to maintain. This is partly because no one enrolled the community in the vision. It was not their plan, so it is not understood as their responsibility to maintain it.

IPI believes that for orphanage sustainability to be a stable reality for Amani House, it must take four forms:

1. Community ownership and sustainability
2. Amani Home self-sustainability
3. IPI NGO self-sustainability
4. Environmental sustainability

IPI is committed to creating community ownership from the beginning of every project. Local officials donate public land. We introduce the project at community meetings and ask all neighbors for small donations to begin the project. A local committee is the support, hiring and decision-making body for each Home. We hire local laborers. IPI understands that community involvement and commitment is critical to the success of loving, stable homes for these vulnerable children.

The Amani Homes will help sustain themselves financially. We are creating a network of enterprises to help fund each Amani Home. These enterprises will also provide the vocational training aspect for the children in the Homes. We will use and sell organic vegetables, eggs from our chickens, and our goat’s milk. We have a weaving project, a jewelry making project, a van which we use and rent out to groups, and are proposing an IT project that could make training with computers available to the community. Our goal is that each Amani Home be 60% self-sustaining within five years of its initiation.

Each child will choose an enterprise, and learn that trade. By Form Two (sophomore year) the money earned from their trade will go into a personal savings account. They will be coached in how to set up their trade as a business and will service their customers, collect the money, and keep the accounts. The goal is that when they finish High School they have an education, a workable, experienced business plan, and a seed money account.

IPI, as a non-governmental organization, strives to be Kenyan-sustained through collectively owned and operated businesses and local donations and volunteers. Our goal is to be 60% Kenyan-sustained as an NGO within 5 years.

The Amani Homes strive to be environmentally sustainable. IPI is committed, whenever possible, to build with solar and alternative energy sources, and use organic farming and gardening practices. Our goal is to be an environmental training center for our community and to have our children trained and experienced in permaculture farming as a foundational element of their education.

The environmentally sustainable level of our vision is beginning to be a reality, thanks to an unusual group of young adults who are creating, funding, and building a wonderful volunteer project for our first orphanage.

Alpine Initiatives’ team spent a month with us in
Kenya and personally financed and built, alongside the Kenyan laborers they hired for the project, the kitchen for our first orphanage. Each volunteer paid all their own expenses. They built the stone building completely by hand, including digging and pouring the foundation, using only wheelbarrows, hammers, and shovels, even to mix the cement.

Associates from EvoDesigns joined Alpine Initiatives for a week in Kenya with IPI. As they all lived, worked and schemed together, EvoDesign was invited to partner with Alpine Initiatives and they have now joined forces in the funding and completion of the permaculture design for the Amani Home’s grounds. They are also pursuing the solar possibilities.

The two acre lot for the Amani Home has been “evo-designed” for a highly effective organic vegetable garden, compost, goats and chickens. There will be a beautiful six foot high, living “edible fence” around the property, with all shades of bougainvilleas mixed with mangos and passion fruit, and banana trees dotting the perimeter. Consistent with agro-ecological design, the rocky hillside will be filled with fruit trees, avocado trees, wild flowers and natural grasses for animal fodder. Several trellised benches, an open play area, a work building for the enterprise’s projects, and a half-basketball court have also been integrated to promote the sense of well-being. There are two ponds for Tilapia, providing fish enough to eat and sell. It is a simple, effective, organic and beautiful design.

I was in our Kenya IPI office in September and October of this year and when I left our project, the Alpine Initiatives team was hoping to get the roof on the kitchen of the Amani Home by the end of that week, and they did. EvoDesign followed up with a solar team in Nairobi; and has received the estimates to complete the project, and are seeking grants to accomplish it.

During this time the Amani Home garden was begun and several areas were cleared and staked out. EvoDesign had hired and paid a small staff to do the requisite “double digging.” That staff, and IPI’s, had been trained in bio-intensive gardening and farming techniques by a Kenyan Bio-Intensive Center sponsored by the Methodist church. They had determined that our little garden, planted well, would yield all the vegetables for eighty children, twelve months a year. EvoDesign left a crayon drawing of the design for the grounds and it was posted on the bulletin board in our humble IPI office. It is our happy vision, our inspiration.

I know the Amani Home grounds are where the children will most know they are loved…by God, the earth, and the community. They will feel cared for here. They will grow up to be contributors to their society. They will be educated, loved and self-sustainable, and they will know how to be nurtured by, and work harmoniously with, the earth.

The way IPI “sends our spirit to renew the face of the earth” is by forging support for eco-sustainable techniques to be made available for the poor. We work with grassroots populations understanding, like many in development work now do, that bringing the “bottom up,” by helping create sustainable lives, is perhaps even more effective than “top down” government approaches, although both are critical. As the grassroots are educated and sustained, even governments are changed by this internal strength and vision; and communities, and therefore nations, become healthy.

To learn more about organizations mentioned in this article, please visit www.ipeacei.org, www.alpineinitiatives.org, and www.evodesign.biz.

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GAVIOTAS:

Nearly two decades ago, while covering a rather harrowing story for the New York Times Magazine, I unexpectedly came across a living example of how humans might actually be able to strike a harmonious, sustainable bargain with our natural surroundings. To this day, the village of Gaviotas in the remote eastern savannas of war-torn, drug-ridden Colombia remains the most hopeful portent I’ve ever seen amidst the hell that too often defines our modern world. Subsequently, I produced a piece about Gaviotas for NPR’s All Things Considered, wrote another for the Los Angeles Times Magazine, and then finally returned to research my book Gaviotas: A Village to Reinvent the World. Following is an abridged excerpt from the book.

The newly planted palms were maybe four feet high: a single line of green pinnate fronds spaced thirty feet apart. So far, it didn’t look like much, but Paolo Lugari was positively beaming as he came over to inspect. “How many will you plant per hectare, Oto?”

“Just forty-three,” replied Otoniel Carreño, “A hundred fewer than in a monocultured plantation. Gives the seedlings plenty of sun and space to grow—and room for company later.”

“Excelete,” boomed Paolo. “The agriculture of the future will be the art of taking advantage of light. And,” he added, indicating the impressive botanical display rising around us, “it will be a polyculture.”

We were in the forest that had bloomed in what, twenty-five years earlier, had been a monotonously treeless plain. More than a decade had passed since I’d last been here. Otoniel, his moustache grayer, was still looking trim in jeans and a white shirt with the “Gaviotas” logo on the breast pocket. Paolo, now in his mid-sixties, seemed indefatigable as ever, although slowed somewhat after shattering several bones in his foot on a slick Bogotá street a few years earlier. But if they were aging on a normal timescale, the Gaviotas forest had assumed a pace all its own.

It was nearly half again as big as when I’d last seen it: expanded by another three thousand hectares. Most impressive, however, was how native foliage was all but swallowing the neat rows of *Pinus caribaea* among them. Although a plantation, it looked far more like a wild forest. And it was: not only deer, anteaters, and capybaras lived here, but tapir were frequently spotted and even an occasional puma.

Were the pines being overwhelmed, I wondered, by competition from primordial species that had sprouted in the shelter of their understory?

“The mix of plants has just made the soil better. These pines were planted in 1983. Last time you were here, we were tapping them for resin. They’ve kept growing—some are more than thirty meters tall. They’re so robust, they’re ready to be tapped again.”

Meanwhile, they were trying something new here. Using a bladed roller they’d designed, they had mowed and mulched a swathe of native underbrush, spaded it into the soil, and planted African oil palms. They were betting that, like their astonishingly productive pine resin, this commercial crop—now cultivated throughout the world’s tropics for cooking oil and lately biofuel—would grow far better among other plants that contributed natural nutrients to the soil.

It was definitely more natural than the artificially fertilized monocultures I’d flown over en route to Gaviotas: thousands of hectares of African palm plantations filling what had been cattle pastures a decade earlier. But were non-native African palms—and, for that matter, biofuels—a good idea? Weren’t tropical forests and farmland worldwide being lost to exotic energy crops at a shocking rate?

“Yes,” agreed Paolo. “There’s no justification for displacing one square centimeter of native forest for biodiesel. Nor of food production. First come mouths, then motors. But that’s not what we’re doing here.”

The difference, he said, was that virtually no trees or food crops prospered in Colombia’s rain-leached eastern savannas until Gaviotas learned to cultivate *Pinus caribaea* here. When a native forest sprouted in their shade from seeds brought by winds, birds, and animals from jungles along Orinocan streams, they’d decided to try coffee and rubber trees in the replenishing soils among the pine rows. Then in 2003, Lugari met University of Colorado engineers...
who proposed a Gaviotas biodiesel project. They’d taken him to see a Boulder biodiesel plant that used vegetable oil and recycled restaurant grease. “I’m sure we can tropicalize this,” Paolo declared.

A year later, a team of Colorado volunteers and the Gaviotans built the collection of 5,000-liter vats, pipes, and galvanized tanks I’d toured in Bogotá before we’d boarded a single-engine Cessna for Gaviotas. It produced high-quality vegetable diesel from palm oil they bought from local growers—an achievement which, like some other Gaviotas experiments over the years, was impressive but not necessarily profitable.

“We’ll be completely self-sustaining in fuel—self-sustaining and non-polluting,” Paolo said. “And we’ll have enough oil left over for cooking.”

“When the group from Colorado came, we could get crude palm oil for $450 per ton. That was before the world discovered that hydrogenated oils are a bad idea.” Suddenly, industrial food processors began snapping up palm oil—which, though highly saturated, contained no trans-fats. “In the past three years, the price of edible palm oil nearly tripled. Economically, refining it into biodiesel makes no sense.”

Nevertheless, he said, given the disastrous costs of atmospheric carbon dioxide, renewable biodiesel from palms grown where nothing else normally grew anyway might make sense after all in a world where petroleum cost more daily. As if to underscore that point, a grizzled Pompilio Arciniegas, the government forester who, I was pleased to see, had never left, rode up on a motor scooter.

“I thought Gaviotas was strictly bicycle country,” I said, shaking hands.

“No longer possible with a tree farm this big,” Pompilio replied.

They’d built several gossamer, light-weight fire lookout towers of steel lattice anchored with guy wires, which were manned continuously. But for a fire-fighting crew to respond to an alarm by bicycle in a forest this extensive would be suicidal.

Their mechanized needs went beyond fire prevention. Gaviotas had stayed alive by becoming an agro-industrial cooperative, and the industry part meant tractors, mulchers, plows, and disks as well as motor scooters. Their biodiesel factory in Bogotá produced enough to run them all. But rather than keep buying costly crude palm oil to refine, they’d calculated that with thirty hectares of fast-growing African palms planted in the fertile soil between their pine rows, in a few years they could produce all their own. “We’ll be completely self-sustaining in fuel—self-sustaining and non-polluting,” Paolo said. “And we’ll have enough oil left over for cooking.”

It was an ambitious plan, and it had already spawned another even bigger. ZERI—the same international Zero Emissions Research and Initiatives foundation that had awarded Gaviotas its world clean energy prize in 1997—had approached the Colombian government. In Vichada and the neighboring province of Meta alone, there were millions of empty hectares similar to the terrain around Gaviotas. Why not plant them in pines, palms, and whatever else nature added, to capture carbon dioxide and to produce clean, renewable diesel for the whole country?

The government was interested. Soon ZERI founder Gunter Pauli was being flown with his staff and key guests by Colombian Air Force officials to see what Gaviotas had done. From there, they traveled to inspect Marandúa: a 70,000-hectare military preserve halfway to the Venezuelan border, where former president Belisario Betancur had once dreamed of starting a Gaviotas forest to resettle thousands of displaced Colombians from the nation’s overwhelmed cities and employ them in a new Colombian capital of the plains.

In a country as politically complex as Colombia, whether the dream will finally materialize depends on multiple factors, not the least of which is securing financing for what could be the biggest sustainability project in the world. But the very fact that the dream had not died heartened me.

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God saw everything God had made, and indeed, it was very good.  
~Gen. 1:31

I am writing to you from Guatemala, where the Mayan culture penetrates daily life. The Mayan culture gives us insights that help us better understand the deeply Christian dimension of today’s ecology and the reality of climate change.

In the Book of Genesis, our faith calls us to a permanent commitment for life. Jesus reinforces this commitment: “…I came that they may have life, and have it abundantly.” (Jn. 10:10) Therefore, our commitment as Christians is with Life, and with all the forms of life that exist since, ultimately, all life is intertwined as a unified creation. This creation is delivered to humans so that, through Jesus Christ, this creation may be lifted back up to the Creator with everything in harmony.

Thus, when we see here in Guatemala a Mayan person, family, or community respecting her/his centuries-old traditions by bowing before a tree, asking permission of mother earth to cut it down, we might not be surprised by that deep expression of respect. We might also sense the harmony implicit in the use of the resources given by the Creator to the world’s human communities.

There is a clear concept in Mayan culture that the earth is the permanent mother of life, the source of life, because she is the face of God. This is a daily manifestation of God the Creator. And as a manifestation of the Creator, the earth is owed complete respect. For this reason, human activities should be conducted with all the gentleness and care that God’s earth deserves.

The idea of a relationship with the natural environment revolves around understanding a balance that we need to establish. Our relationship with the earth is one of love and not of destruction. We are speaking about a permanent commitment to the life that is given to all and for all. Future generations, as well as our own, have the right to life in abundance.

The significance of mother earth is deeply evocative. The earth is the mother who gives us the milk of our daily bread: corn, beans, water, herbs, squash, etc. She is also the mother concerned that her children have what is necessary for shelter, from clothing to housing. All this comes from her milk—her earth—the source of all that we have. For this reason, it is not correct for us to establish an exploitative relationship with her, and certainly not a destructive relationship. On the contrary, our relationship with mother earth ought to be one of love and balance, based on the understanding that we are not the owners. Who can be the owner of his/her mother? Besides, the vision and significance of mother, mother nature, mother as manifestation of the Love of God towards humankind, cannot be passed on to future generations if it is destroyed.

The importance of our relationship with nature seems very close to that shared by Francis of Assisi when he spoke of brother sun and sister moon. Both perspectives call for a sense of relationship and balance in human life, recognizing that life is a unified whole. Thus, when we respect the complexity of nature, we are respecting ourselves. We then understand creation, and know that to participate permanently in this creation we must enjoy it without destroying it. This becomes a commitment of permanent love toward life, totally different from an attitude of destruction or of war against she who sustains our life.

As we gather together with groups of our Mayan sisters and brothers to discuss the theme of ecology and the broken equilibrium in which we are now living, we see that they are conscious that their relationship with nature is not war-like; rather, it is one in which they struggle to establish or rebuild the permanent balance with the natural world in which they live.

Based in their daily relationship with nature, our Mayan
brothers and sisters seem to protest to Western culture: “Cain, Cain, what have you done to your mother?” The awareness is clear that, if the mother is sick, we all fall ill. If the mother is destroyed, we destroy ourselves. If the mother is seen as an object of exploitation, and not viewed from the perspective of a balanced use of her resources, we will all end up exploited and out of balance. Isn’t that the state in which we are living today? Thus we feel challenged by our faith, and by life itself, to change the direction of our relationship with nature.

Recognizing the signs of the times today is still urgent (Mt. 16:1-3), and sign number one is the changing climate that we, the impoverished communities of Guatemala, as well as all Central American countries, are currently experiencing. We are aware that global warming comes mainly from the consumerist lifestyles of the developed northern countries. The impact, the consequences of this warming, is what we see in our communities: floods, loss of homes, destroyed crops, record-breaking rainfall causing mountain slides to obliterate entire communities, with subsequent loss of human life. The opposite also happens: extended periods of drought, during which the wells run dry, leaving people without drinking and bathing water, which has severe consequences for the health of children, the elderly and all adults.

The time to change is now. This is a time for conversion, a time to assume the responsibility we share with each other and with present and future generations. This is the moment to join together to avoid destroying the inheritance we share: nature. We see the focal point, to protect and maintain all ecosystems, those spaces that continually generate life for us all.

To receive the inheritance of the Reign of God (Mt. 25:33), we need to accept, and be deeply committed to, living that Reign and refraining from destroying God’s creation. Moreover, we continue co-creating for the benefit of both present and future generations, living as children of this creation, as true heirs.

The love and concern for the poor becomes today’s decisive commitment to protect the earth and to work to protect and maintain a healthy climate. We cannot ignore this commitment, which joins us who live today with those who come later. We owe it to those future generations to leave for them an “…earth [that] puts forth vegetation, plants yielding seeds, and fruit trees of every kind on earth that bear fruit with seeds in it” (Gen. 1:11).

Translation from the Spanish by CAC staff member Doug Spence. All Scriptural quotes are from the NRSV.

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Clergy of all stripes seem to prefer the third “theological” worldview. It allows us priests and preachers to feel necessary and gives us a job to do. It keeps the laity running after the carrot on the stick, which we always hold out in front of them. But, less cynically, I think the Incarnational worldview demands some degree of inner experience of the same. You cannot just “get it” intellectually or as an abstract doctrine. You have to have had some level of unitive experience, God experience, or what many would call basic mysticism. Even nature mysticism or love mysticism are good starters. Once you have this experience, not only is the Green revolution not anti-Christian, or a nice parallel to Christianity, I think it is the direct child of Christianity! It is the Incarnation come to full unfolding, implication, and consciousness. Yes, of course, people are often involved for self-interested motivation, but does that make it wrong itself? We see in the Scriptures that Yahweh is quite willing to use Balaam’s ass, Cyrus the Persian, and unwilling prophets to do God’s holy will.

God is so humble and so patient that God does not wait until humans can develop pure and perfect motivation. You do not need to believe in God to do God’s will or to give God glory. Apparently Daniel is saying that dolphins, springs, and mountains are doing it quite well, and have been for millions and billions of years before we even showed up. Was God not glorified until we came? Was God not in love until we came? If so, God had nothing to do for at least 34 billion years.

I hope to develop this theme on more practical levels in the months and years ahead, but here I just want to lay the theological foundation, and let you absorb it—and enjoy it—before we go further. It is a major paradigm shift for most Western and cultural Christians. Listen to the wisdom of Solomon:

> How dull are all people who, from the things-that-are, have not been able to discover He-Who-Is, or by studying the good works have failed to recognize the Artist. . . Through the grandeur and beauty of the creatures, we may by analogy, contemplate their Author. ~ Wisdom 13:1, 5

In other words, matter is the outer form and spirit is the inner source of everything we know and see. Today quantum physics, astronomers, and molecular biologists seem to be discovering the same thing, but from completely different starting points. Paul said the same. He knew his Scriptures from Genesis to the Book of Wisdom to the prophet Daniel. It is time for us to believe as widely and deeply and completely as he did. And remember that Paul only articulated what Jesus had already lived by action and lifestyle:

> Ever since God created the world, his everlasting power and deity—however invisible—have been there for the mind to see in the things that God has made. ~ Romans 1:20
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