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Religion and Ecology News Articles

March – April 2016

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March 2016

An Integrating Story for a Sustainable Future: A Way toward New Human-Earth Relations

By Brian Swimme and Mary Evelyn Tucker
Center for Humans and Nature

We know that the obstacles to the sustainable development and flourishing of life's ecosystems are considerable. To meet these challenges, the next stage of evolutionary history will require an expansion of our worldview and ethics. The human community has now for the first time a scientific story of the evolution of the universe and our planet that shows us our profound connection to the evolutionary process. We are only discovering its larger meaning as evolution continues to unfold. This is why we created the [Journey of the Universe](#), namely a film, book and educational series to tell the story of cosmic, Earth, and human as an evolutionary epic.

We are realizing, too, that evolution moves forward through transitions—the movement from inorganic matter to organic life, for example, or from single-celled organisms to plants and animals. All such transitions come at times of crisis, involve tremendous cost, and result in new forms of creativity. We are in such a transition moment.

Surrounding this moment is a challenge to older paradigms of the human as an isolated being in a random, purposeless universe. Peter Raskin has called this the Great Transition, while Joanna Macy named it the Great Turning. Our consciousness is shifting from valuing individualism to embracing interdependence on a vast scale. The Enlightenment values of life, liberty, and the pursuit of happiness are being reconfigured so that life includes the larger life of the Earth, individual freedom requires responsibility to community, and happiness consists of more than acquiring material goods. We are moving from an era dominated by competing nation-states to a sustainable, multicultural planetary civilization.

Over the past century, science has begun to weave together the historical story of our cosmos, which emerged some 13.7 billion years ago. At the same time, we are becoming conscious of the rapid destruction of species and habitat taking place around the planet. As we realize the vast expanse of time that distinguishes the evolution of the universe, we see how late our arrival in this process is and how quickly we are foreshortening the Earth's future flourishing.

We need, then, to step back to assimilate our cosmological context. If scientific cosmology gives us an understanding of the universe's origins and unfolding, then philosophical reflection gives us a sense of our place in it. As science reveals to us the intricacy of the web of life, we realize that we are not only unraveling it through our economic progress and rapid industrialization, but that we are destroying our own continuity as a species.

Two major permanent exhibits at the American Museum of Natural History clearly demonstrate our cosmological context and environmental crisis. One is the Rose Center, which houses the Hall of the Universe and the Hall of the Earth, and the other is the Hall of Biodiversity.

The Hall of the Universe is a monumental glass cube with a globe containing a planetarium at its center. Suspended in space around the globe are the planets of our solar system, which are juxtaposed in a fascinating mingling of inner and outer worlds against the garden plaza and streets of New York beyond the cube's walls. After passing through a simulation of the originating fireball, visitors move up an elevated spiral pathway through our twelve-billion-year cosmic journey, from the formation of galaxies to the emergence of our solar system. When they reach the Cenozoic period, which encompasses the last sixty-five million years, they end at one human hair under a circle of glass. The breadth of the hair represents all of human history.

The Hall of Earth reveals the birth of the planet, the evolution of the continents, and the eventual emergence of life. It presents the theory of plate tectonics, not widely accepted just fifty years ago, as well as deep-sea geothermal life forms discovered only a decade ago. Thus, this exhibit illustrates how new our knowledge of Earth's evolution is.

The Hall of Biodiversity displays the extraordinary range of life forms that our planet has birthed—a panoply of animals, fish, birds, reptiles, and insects. A plaque observes that we are

now living in the midst of a sixth extinction period. It notes that while the five earlier periods of extinction were caused by a variety of factors including meteor collisions and climate change, humans in large part are causing the present one. This prompts us to question not only our role, but our viability as a species. We are the first generations of humans to actually imagine our own destruction, and—while this may be extreme—some suggest this may be necessary for other life forms to survive.

The exhibition notes that we can stem the loss of species and habitat. It offers an arresting series of pictures: current destruction is recorded on one side, and restoration processes are highlighted on the other. The contrasting displays suggest the choice is ours—a bold step that shows that scientists no longer try to stand completely apart from what they study.

These powerful exhibits illustrate how science is ushering us into a macrophase understanding of the universe and of ourselves as one species among others on a finite planet. The fact that the Rose Center presents the evolution of the universe and the Earth as an unfolding story in which humans participate is striking in itself. Indeed, the introductory video in the Hall of the Universe observes that we are “citizens of the universe” born out of stardust and the evolution of galaxies, and that we bear responsibility for its continuity.

Environmental ethicists and religious scholars are being called to re-examine our role as humans within both the larger context of the universe’s evolution and the closer context of life on Earth. What is humankind in relation to 13.7 billion years of universe history, or to 4.6 billion years of Earth history? These critical questions underlie our new consciousness of the universe story not simply as a narrative, but as a transformative cosmological story.

Since the earliest expressions of culture, humans have developed cosmologies to describe where we have come from and where we are going. The religious and cultural traditions we have honored for millennia all bear witness to our deep desire to find meaning around us. Over the last two centuries, however, the scientific paradigm has dominated. Some scientists and science-minded philosophers have concluded that while the universe appears to follow certain natural laws, it is merely a random accretion of objects with little meaning and no larger purpose. Scientific and religious cosmologies have thus co-existed uneasily. But the best of modern science shows how we are part of the universe’s ongoing journey and how we shape its future form. This can be an important context for ecological, economic, and social transformation in our emerging planetary community.

The integrated story of the origin and development of the universe, of Earth, and of humans could become an inspiring vision for our time. It gives us a sense of common evolutionary heritage and shared genetic lineage that could establish the foundations for sustaining the future. Carl Anthony, one of the leaders of the environmental justice movement, has said this perspective has profoundly transformed his life and work. We, too, can be inspired by it, recognizing that ecological, economic, and social change is not only necessary, but inevitable.

<http://www.humansandnature.org/to-be-human-mary-evelyn-tucker-brian-swimme>

March 1, 2016

The Urgent Need to Slow Down

A Conversation with Elizabeth Kolbert and Matthieu Ricard

By Sam Mowe
The Garrison Institute

*Journalist Elizabeth Kolbert and Buddhist monk Matthieu Ricard each had big books in 2015. Kolbert's *The Sixth Extinction: An Unnatural History*—winner of the Pulitzer Prize for nonfiction—takes an unflinching look at the history of extinction and the different ways that human beings are negatively impacting life on the planet. Ricard's *Altruism: The Power of Compassion to Change Yourself and the World* explores global challenges, such as climate change, and argues that compassion and altruism are the keys to creating a better future. Together these books—filled with grief and hope—feel like two sides of a coin, each necessary for understanding what it means to be alive during humanity's greatest crisis.*

I recently spoke with Kolbert and Ricard to discuss emotional responses to distressing environmental news, the importance of slowing down, and the role of art in environmental solutions.

Sam Mowe: Elizabeth, [we've talked about this before](#), but *The Sixth Extinction* is a devastating book. Was it emotionally challenging for you to report on these issues?

Elizabeth Kolbert: Well, when you set out to write a book, on some level you have some sense of what you're getting into. Otherwise, you wouldn't write it. So on some level, I'd say I had already absorbed the message. It is a very grim message. If you're not devastated by it, then the book has not done its job.

But one of the ironies that I experienced in the process of writing this book about how humans are really effective at destroying life on the planet is that I went to all of these amazing places and saw just how fantastic the world is. Carl Safina has said something like, "The more I sense the miracle, the greater I sense the tragedy."

Sam Mowe: Matthieu, I know that you are also aware of the bleak facts, but you're often described as the happiest person in the world.

Matthieu Ricard: That's completely exaggerated. [*Laughter*]

Sam Mowe: Even so, in your book you quote somebody as saying, "It's too late to be a pessimist." How are you able to stay optimistic in the face of distressing environmental news?

Matthieu Ricard: It's interesting that you mention this emotional reaction to climate news, because, actually, the problem is precisely that it is very hard for us to be emotionally moved by something that will happen in the future. Of course, the worst of climate change is coming closer

and closer, but it won't happen tomorrow. The reason for this emotional disconnect is quite simple: evolution has equipped us to react to immediate danger. If there's a rhinoceros coming at a group of people full speed, everybody gets up and runs. If you say, "There's a rhinoceros coming in 30 years," people will ask, "What's the problem?"

Sam Mowe: The reason I'm interested in this question of emotional responses is because behavioral scientists say that people are frozen by bad news and motivated by positive messaging. This creates a challenge for those working for environmental change.

Matthieu Ricard: All my photographic work is about showing the beauty and the wonder we have in terms of nature—implying, of course, how incredibly sad it would be if it was all destroyed. We need to inspire. But we also need to be honest about what's going to happen in the future if we don't put our full energy, ingenuity, creativity, determination, and decision making towards solving this crisis.

Elizabeth Kolbert: I think that also gets to this question of messaging. I hear that all the time, that people don't want to hear negative messages. To a certain extent, I think that is a construction of our consumer culture, which is precisely the problem. We don't want to hear negative messages because they're not part of this affirming culture that we live in that tells us all, to quote McDonald's, "You deserve a break today," or whatever. That is part of this whole communications apparatus that's been built around actually trying to prop up consumerism. And if that's the problem, then maybe we really need to examine all of the precepts behind that.

Also, the idea that people are only motivated by good news is clearly not true. If something is coming at you—say, a rhinoceros—you get out of the way. Clearly, we're very much motivated by fear, and fear has mobilized us many times.

Matthieu Ricard: When there is genuine fear because of real danger, to ignore it is stupid. What we don't need is unreasonable fear or fear that comes as lagging anxiety—sometimes the fear alarm is on for reasons that are not justified. Sometimes what we call fear, is simply common sense. If you were walking towards a cliff, you would not be taken by fear and emotion. You would just decide that you should stop before you fall over.

Sam Mowe: It seems that a lot of this consumer culture that Elizabeth was just speaking about is also driven by fear—fear of not having enough or being good enough as you are.

Matthieu Ricard: Yes, we need the ability to recognize when a fear is reasonable.

Sam Mowe: Let's talk about time scales. Elizabeth, one of the points that you make in *The Sixth Extinction* is that humans have been altering the planet for a really long time, sort of like it's in our DNA to do so. So it's going to be challenging to change our behavior overnight. And, Matthieu, you talk about the value of slowing down. So there seems to be this tension between the urgency of the moment and then the long-term project of changing human nature or at least slowing it down.

Elizabeth Kolbert: I think that the idea about slowing down very much gets to the heart of the matter. To the extent that we are a world-altering species—and I do think it's pretty clear that we've been at this project for a very long time—what makes us very destructive, unfortunately, is our capacity to change things on a time scale that is orders of magnitude faster than other creatures can evolve to deal with.

But there is a difference between what we were doing when we were hunting some mastodons and what we're doing today. Our impact on the planet has been called "the great acceleration." Becoming aware of our capacity to change the planet could be a good thing and could potentially lead us to reassess a lot of the things we do. However, I try to never say, "Things are going to change," because I don't see any evidence of that. But I certainly think that there's a possibility for change.

Matthieu Ricard: It's not contradictory to speak of an emergency to slow down. It's not like you are frantically nervous while slowing down. It's just that it is time to slow down. All of those terms—slowing down, simplicity, doing more with less—people respond to them by saying, "Oh, I'm not going to be able to eat strawberry ice cream anymore." They feel bad about that. But, actually, what they miss is that voluntary simplicity that turns out to be a very happy way of life. There have been very many good studies showing that again and again. Jim Casa studied people with a highly materialistic consumerism mindset. He studied 10,000 people over 20 years and compared them with those who more put value on intrinsic things—quality of relationships, relationship to nature—and he found the high consumer-minded people are less happy. They look for outside pleasures and don't find relationship satisfaction. Their health is not as good. They have less good friends. They are less concerned about global issues like the environment. They are less empathic. They are more obsessed with debt.

So I think we have to realize that we can find joy and happiness and fulfillment without buying a big iPad, then a mini iPad and then a middle-sized iPad.

Sam Mowe: Do you think that contemplative practices can help people come to that realization?

Matthieu Ricard: For me, contemplation means to cultivate skills, inner strength and determination to better serve others and to serve causes that are worth serving. It's like gaining the inner resources to deal with the ups and downs of life and to deal with the adverse circumstances, the sheer determination and compassionate courage. So, yes, I think contemplation can help set priorities.

Sam Mowe: Elizabeth, do you think spirituality has a place in climate discussions or do you see it as more of a policy and financial issue?

Elizabeth Kolbert: I do think spirituality has a place in the discussions, understanding spirituality very broadly here in terms of thoughtfulness and self-control. Changing our energy systems is obviously a huge technological challenge, but I think the mistake that is often made is that people think we're going to change our energy systems, and then we're going to just continue to live as before. But if you just give people more energy—and it might be a carbon-free source of energy—and they're going to use it to cut down the rainforest, then you have

potentially solved or ameliorated one problem only to worsen another problem. So how we use these technologies that we deploy makes a huge difference, and I don't think that without any form of self-control that we're going to get out of this mess. So we're going to need massive amounts of both technology and self-control simultaneously.

Sam Mowe: How can we achieve that level of self-control as individuals and as a society?

Elizabeth Kolbert: Well, I don't have a good answer for that, and I don't claim to have any expertise in this area. I can barely control my three kids. But right now in the U.S., you know, one of our favorite phrases is "the sky's the limit." I think there are possibilities of different social norms that have very different values.

Matthieu Ricard: There are many ways to do this. But, yes, the idea is that we need to cultivate some fundamental human values and that are different from our current ways our life.

Sam Mowe: Do either of you think that art can help us reset our views of nature and help us change our values in the way you're talking about?

Elizabeth Kolbert: I think art potentially has a huge role to play, and part of that is because so many of us are living in urban settings and we can't all go off and visit the Amazon. And we shouldn't be doing that anyway, to be honest. So I think that reaching people through all sorts of different media—and breaking through that inattention to what many people would consider to be unpleasant, unhappy news—is useful.

There is the great Emily Dickinson line, "Tell all the truth, but tell it slant." There are many people working on this, and I've worked with a couple of different artists on this sort of thing. Whether any of this is having any success in the sense of actually motivating action, as opposed to just being good art or bad art, I can't really comment on that.

Matthieu Ricard: I try to do this through my photography. I think of it as a way to be witness to the beauty of nature and to share it with people who live in cities, to remind them of the beauty of the world. So I think that can be a major source of inspiration for positive change.

Sam Mowe: I ask that question partly because I sometimes experience information overload and it seems like art might be a way to cut through the information and connect your heart to the issues.

Matthieu Ricard: Yes, but I think we must go directly to the issue and not naively hope that by listening to Bach we will somehow realize we need renewable energy instead of fossil fuels. I'm not sure there's too much of a direct connection.

Elizabeth Kolbert: Yes, I really agree with that. I think that there's room for all sorts of creative efforts, and I applaud them, but I think there is a problem when people mistake some kind of presentation or artwork or discussion for action. You can say they both have utility, but you cannot confuse them.

Matthieu Ricard: If you are on a boat that is going straight towards a big waterfall, it's of no use to play soft music.

Elizabeth Kolbert: *[Laughs]* Exactly. Or maybe there is, but you shouldn't convince yourself it's going to prevent you from going over the edge.

<https://www.garrisoninstitute.org/blog/the-urgent-need-to-slow-down/>

March 2, 2016

Muftis in Perlis Issue a Fatwa against Pollution

Clean Malaysia

First came [a fatwa by Islamic authorities against the poaching of protected species in Terengganu](#). Now comes another equally welcome religious edict issued by the Perlis Fatwa Committee: a ruling against polluting the environment. Through that fatwa, the committee has made it “haram,” or forbidden, for Muslims to pollute Malaysia's environment because doing so would cause harm to humans, animals and plants alike.

“The act of polluting the environment which directly affects nature's ecosystems causing harm to living things is in conflict with the teachings of Islam,” [State Mufti Associate Prof Dr Mohd Asri Zainul Abidin said](#) apropos the religious reasoning behind the new Islamic edict, which has just been passed by the local Fatwa Committee in the state of Perlis, in northwest Malaysia. “Islam is a religion that calls upon its followers to preserve the wellbeing of human life and the universe, and not perform harmful acts,” he added.

Here's hoping that Muslims across Malaysia will heed that insight and do their best to stop or avoid polluting the country's much-polluted environment any further. [Fatwas](#) can be issued only by qualified religious authorities in Islam on any specific issue, but as a rule they are not automatically binding on individual Muslims. The rulings generally seek to influence the conduct of believers.

“Every Muslim is obliged to refrain from doing any activity and action that may cause environmental pollution, thus disturbing lives and the ecosystems directly,” explained Dr Asri Zainul Abidin, the mufti of Perlis popularly known as Dr Maza, citing the extensive harm that pell-mell surface mining in Kuantan, in Pahang state, has inflicted on local ecosystems and the lives of people. “Any effort to safeguard the environment is encouraged by the religion (of Islam) and is considered as a good and pious practice.”

Then again, you don't have to be a Muslim to consider it good practice to safeguard the health of natural environments. We should all be aiming to do just that regardless of our religious affiliations, or lack thereof. Whether we believe that Malaysia's stunning ecosystems are God's or evolution's gift to us, we all ought to feel personally responsible for their upkeep and wellbeing.

March 3, 2016

Interfaith community to discuss protection of coastal waters

By Rick Snizek, Editor
Rhode Island Catholic

PROVIDENCE — Draped in hidden splendor beneath the shimmering blue waters of the Atlantic Ocean lie gorges deeper than the Grand Canyon and mountain peaks as tall as the Rockies.

In an area known as Cashes Ledge, located about 80 miles east of Cape Ann, Massachusetts, scientists continue to identify new species where rare, cold water coral reefs more than 1,000 years old are home to one of the most biodiverse areas of the Atlantic.

The area is home to the deepest and largest kelp forest along the Atlantic seaboard, as well as such rare species as the Atlantic wolfish and passing pods of highly endangered North Atlantic right and humpback whales.

It is in this area that Save the Bay, the Rhode Island Council of Churches, Creation Justice Ministries and Interfaith Oceans support the establishment of the first proposed marine monument in the Atlantic Ocean. The honor would raise awareness of the importance of protecting all coastal waters, including those where fishermen from across New England ply their trade, a vocation which tens of thousands of people depend upon for food.

On Sunday, March 12, from 1:30-3:30 p.m., members of the faith community are invited to attend “Protect God’s Creation: New England Ocean Treasures,” at Save the Bay, 100 Save the Bay Drive, in order to learn more about God’s wondrous creation off the state’s coast, and how to protect it for future generations by supporting its designation as a national marine monument.

The goal of the initiative is to permanently protect New England’s ocean treasure for future generations. The movement seeks the support of faith-filled people eager to heed the moral call to care for God’s creation.

Following a speaking program, Father Andrew George, protopresbyter at the Church of the Annunciation Greek Orthodox Parish of Greater Providence, will perform a traditional Blessing of the Waters in an outdoor ceremony slated to last about 30 minutes.

Marybeth Lorbiecki, author of “Following St. Francis: John Paul II’s Call for Ecological Action,” and director of Interfaith Oceans, promoted the event last week in an interview on Boston’s Catholic TV.

“It will affect the generations of fishermen to come to preserve these treasures along the coast,” she said of the importance of establishing the monument for all who live near and depend upon the bounty of the ocean each day.

In an interview from her home in Wisconsin, Lorbiecki also spoke about how the Year of Mercy proclaimed by Pope Francis and care for the environment are connected.

“One of the things the pope is really emphasizing is that care of creation is actually care of the poor,” she said, noting how the planet is a gift from God.

“We’re tenants on this land. God made it good and we’re not doing so well [with it],” Lorbiecki said.

She noted that it is the poor that are the first to be hurt by environmental degradation and devastation.

“They have no place to go. They become refugees,” she said.

Lorbiecki also stresses that climate change, which is producing a noticeable change in the world’s oceans, is not just about the future, it’s also about the present.

“The Year of Mercy is calling us to repentance, individually and communally, and saying to us ‘Let’s have a sense of God and Christ in creation.’”

Space for the program is limited and participants are encouraged to register early.

For more information, visit www.creationjustice.org/ocean-treasures.

<http://thericatholic.com/stories/Interfaith-community-to-discuss-protection-of-coastal-waters,8023>

March 3, 2016

Theologian contemplates environment and spirituality

By Pat Johnson
Vancouver Courier

The ecological crisis is a spiritual crisis, says a renowned theologian coming to Vancouver this weekend.

Douglas Christie, a professor of theological studies at Loyola Marymount University in Los Angeles, blames environmental degradation on human habits of consumption and a lack of feeling for other living beings, including other people.

“These can be understood in the deepest sense as reflecting a kind of spiritual alienation,” Christie said in a phone interview before his arrival here. “We are alienated from ourselves. We are alienated from one another. We are alienated from the world. To make ecological change and transformation have any chance of enduring, it feels important to examine the deeper sources of our alienation. You can use the word spiritual to describe that. You don’t have to, there’s other language you can use, but I think it’s useful.”

Christie’s forte is contemplative ecology, which he describes as having a consciousness of the larger reality ever-present in one’s life and the world around us.

“Contemplative practices show up in almost every major world religion, Christianity included, so there’s also a more specialized meaning that contemplative has,” he says. “It involves certain spiritual disciplines or practices. Sometimes it involves solitude, sometimes it involves silence, stillness, and often these practices are developed in communities, say monastic communities or other intentional communities, so that contemplative practices become a way of shaping a life, a human life, as well as the life of the community.”

But contemplative practice doesn’t have to be complicated.

“It has a simple meaning,” he says. “Paying attention, being aware and living out of that awareness, especially in relation to the natural world.”

Confronting climate change and other potential ecological catastrophes requires all sorts of responses, he says, but contemplative practices can be an important part.

“I think we need a full-blown social, political shift — and an economic shift, for that matter — that will help us reorient the way we live so we’re not doing so much harm to the planet,” Christie says. “I also feel it’s important, even as we’re trying to identify those shifts, that we pay attention to the deeper sources of our own unease, our own inattention to the world. So contemplative thought and practice is meant to be a help in that larger process.”

Christie’s recent book is *The Blue Sapphire of the Mind: Notes for a Contemplative Ecology*. The title reflects the words of Evagrius of Pontus, a fourth-century monk, who wrote, “If anyone should wish to see the condition of the mind, let him deprive himself of all mental representations, and then he will see the mind similar to sapphire or to the colour of Heaven.”

“Some people say that [Evagrius’] spiritual thought comes very close to Buddhism in some ways,” Christie says. “He advocated individualist prayer, for example, an approach to prayer that pushes beyond all images, all language, that pushes into something dark, that requires us to kind of stand in the unknown and the unknowable. He uses the expression that when the mind is transformed through spiritual practice, it comes to shine like sapphire.”

Christie clarifies that the ancient use of the term that we translate as “mind” goes beyond the contemporary meaning of our rational mind and means instead the deepest centre of our souls.

“We have this capacity to become luminous beings, open to the whole reality where everything is kin to us,” he says. “I just love that image, the blue sapphire of the mind, so that’s the image that I chose to ground the book.”

That will be the theme of a public talk Friday night. An all-day retreat Saturday at the Canadian Memorial Church and Centre for Peace (canadianmemorial.org) will address the topic “The Need for Roots: Cultivating a Sense of Place.”

The sense of place, which is relevant in ecology, is also significant, he says, in the struggle for 21st-century people to find a spiritual place. There are plenty of people who subscribe to a theology that is “spiritual but not religious,” which can make it difficult to situate oneself in a community of like-minded people.

“I’m very sympathetic to the kind of hunger that gets expressed in all kinds of new and interesting ways, not necessarily connected to religious traditions,” he says. “But I’m also aware – and you see this often and I feel myself sometimes — it’s hard to find a community sometimes if everything is moving in front of you, everything’s up for grabs, if everybody’s spiritual path is kind of self-invented. People do, I think, find that seeking and finding community can be challenging in that kind of climate.”

His own approach does not follow a straight line. It is rooted in Christian tradition, but is influenced by others as well.

“I made a great effort to open up the canvas as widely as I could and to listen to voices from far beyond the Christian tradition, who are, I believe, offering us a similar kind of contemplative orientation to the natural world,” Christie says. “The book is actually set up as a kind of sustained conversation or dialogue among and between Christian contemplatives and poets, writers, artists, natural historians, ecologists, philosophers who are not at all identifying themselves as Christians but who are trying to see the world deeply and carefully. I’m creating what I hope is a contemplative space that is infused with Christian thought and imagination but not limited to it.”

<http://www.vancourier.com/community/theologian-contemplates-environment-and-spirituality-1.2190042>

March 4, 2016

Murder of Honduran environmental activist sparks outrage

By David Agren
Catholic News Service

MEXICO CITY (CNS) -- An outspoken environmental activist in Honduras was murdered in her own home, sparking outrage and offering another example of the impunity and violence in the Central American country.

Berta Caceres, who won the 2015 Goldman Environmental Prize -- an award considered the Nobel for ecological actions -- was murdered at around 1 a.m. March 3 in what police initially called an attempted robbery, but family members denounced as politically motivated murder, according to media reports.

"A strong, dangerous message was sent today," said Mike Allison, an expert in Central American politics at the Jesuit-run University of Scranton, Pennsylvania. "It's outrageous that after several years of international scrutiny and, at times, condemnation, that some people had no qualms ordering her murder."

A Lenca indigenous leader, Caceres attracted international attention for her opposition to a hydroelectric dam on the Gualcarque River in western Honduras, where construction crews arrived unannounced almost a decade ago. A court order banned her from the area and she endured death threats, but successfully led protests that thwarted the project.

"She was a woman committed to fighting for the protection of the environment and indigenous people's territories and the common struggle," said Jesuit Father Ismael Moreno, director of Radio Progreso and the Jesuit-run Team for Reflection, Research and Communication.

"This has been what she was known for," since founding the Council of Indigenous Peoples of Honduras in 1993, Father Moreno added. "It's been 25 years of perpetual struggle. ... She was the woman with the most recognition in all of Honduras" and well-known abroad.

Caceres participated in the 2014 World Meeting of Popular Movements at the Vatican but was not considered close with the Honduran church hierarchy.

Her actions had angered elites in Honduras, one of the poorest countries in the hemisphere and home to the highest homicide rate in the world. Father Moreno said she protested against concessions granted to foreign mining companies and was perhaps the best-known critic of a concept known as "model cities," which creates areas within Honduras that have laws and institutions different from the rest of the country, in an effort to attract international investment.

Mostly, though, she protested against proposed mines and hydroelectric projects, which were planned by foreign firms -- and, her supporters alleged, she dealt with threats from landowners and the authorities.

"We're heartbroken," said Father Moreno, who considered Caceres a close friend. "She was constantly under threat."

The murder brought international condemnation and calls for investigation.

President Juan Orlando Hernandez condemned the killing and promised a thorough investigation.

"This act causes mourning for all of us," he said via Twitter.

Police initially attributed Caceres' death to robbery, but later said she was shot four times, according to media reports.

The crime again confirms the problem of corruption and impunity in Honduras, where mass protests filled the streets in 2015 after it was discovered money embezzled out of the state social security system ended up in Hernandez's successful presidential campaign.

An international commission against impunity has been created in Honduras, following the example of neighboring Guatemala, where the president and vice president were impeached on corruption charges. Observers say it may not be as easy in Honduras.

"(The commission) and the international community should have no illusions about the environment into which they are operating," Allison said.

<http://www.catholicnews.com/services/englishnews/2016/murder-of-honduran-environmental-activist-sparks-outrage.cfm>

March 6, 2016

A Buddhist tradition guides seekers to live in harmony with nature

By Manjula Narayan
Hindustan Times

It's -19 degrees C and you are trudging back to the hotel after a sumptuous thukpa dinner at the Amdo Tibetan restaurant on Leh's main market street. Your companions are much younger, not given to wheezing as they traverse the frigid streets, not given even to the debilitating episode of altitude sickness that kept you in bed for a whole day, your heartbeat booming in your ears like a murderous foghorn.

You notice too that they are still keen on quizzing religious figures like Gyalwang Drukpa, head of an order of Mahayana Buddhism popular in the Himalayas, about the BIG questions: "Explain tantra to us; How come there's a picture of Shiva outside?" and are generally full of a liquid enthusiasm for life that, in you, has congealed into the bland all-knowing soul borscht of the middle aged.

Still, there are some mysteries that continue to intrigue you. Like, why would a woman willingly opt for a life of self abnegation, one that steers away from the firm pleasures of the flesh, unhears the quiet shout that urges most to be fruitful and multiply, resists the clutching of tiny arms?

"I was interested in spirituality from a very early age," says 27-year-old Jigme Tingdzin Zangmo, a kung fu-practising nun attached to the Drukpa sect, when you meet her in late February at the 386-year-old Hemis monastery, where crowds in traditional dress have gathered to celebrate the Winter Hemis festival, that marks the advent of spring.

“I became a nun when I was 14. Even before that, whenever I thought about what I should be doing in my life, the instant answer was always: ‘You shouldn’t just be ordinary in this life because this life is very precious,” says Jigme as we queue up to ladle helpings of rice and light mutter paneer onto our plates. “If you just study and have an ordinary life, of course, you can have money or become famous but there is not much point in that life,” she says with absolute conviction. As a novitiate, Jigme studied at the Tia nunnery where she learnt English and Hindi and “the most important – the preliminary practice”. This involved executing 4,000 prostrations a day. A single set of preliminary practice includes “100,000 prostrations, followed by 100,000 vajrasatva practice, 100,000 mandala offerings, and 100,000 guruyoga.”

“It’s quite tough,” Jigme says with classic understatement. You can only nod and chew thoughtfully on bits of paneer and attempt to get closer to the wood chip fired bukhari at the centre of the room.

Did she ever miss her family? “Though we can visit our families, we are not fully involved with them. As a spiritual practitioner you shouldn’t get too attached to your family because, from the point of view of spirituality, from the vajrayana point of view, all of life, everything, is an illusion,” Jigme says. “Your judgement is clouded by your attachments; that’s why you shouldn’t be fully involved in samsara. The main intention of being a nun is to be alone and to be a practitioner.” Jigme believes she has a karmic connection with her guru, the Drukpa, who named her as a child.

As an agnostic who appreciates religious belief without ever being able to commit to it, you are constantly surprised at how Ladakhis – from Jigmet, a sometime teacher at the Rancho school made famous by Aamir Khan’s Three Idiots, whom the monastery has assigned as your guide, to the Drukpa himself – speak in a matter-of-fact way about karma and their own multiple births.

“In my life, in this life, I have done this mela (the traditional Naropa festival to be celebrated as ‘the Kumbh of the Himalayas’ on the banks of the Indus in July this year) only in Ladakh; I have not yet done it anywhere else though people are requesting me to,” says the Drukpa, who wears his power as a spiritual leader very lightly. Dressed in robes that expose his arms to the elements while his audience of nonplussed big city journalists shivers in three layers of woollens and windcheaters, he laughs easily and answers even the most inane questions sensibly, and presents abstruse philosophical concepts in digestible nuggets.

“What is the winter Hemis festival and did it always exist?”

“It’s the circle of the year, the circle of day, circle of moon and sun; we do certain practices like Mahakali practices, Mahakala practices. Most of these practices need to be done at the end of the year; it’s a very deep kind of thing to understand for commoners like us,” the Drukpa says, and you think of the thousands who had gathered on the vast grounds adjacent to the Rancho school, for a glimpse of him and to participate with deep devotion in the Hemis festivities. “These are practices connected with Shiva, Avalokiteshvara and Mahadev. Practices connected with tantra should be done in the upper part of the year. That is connected with physiology, the physical body, the cyclic existence, the human body has circulation too you know; it’s something to do with astrology and all these things,” he says.

Despite being an inveterate skeptic, you are impressed by this cheerful guru who speaks of both spirituality and the very worldly need to care for the environment. “The Naropa ceremony, which is held once in 12 years, is considered as a side liberation according to religious belief. The ceremony is not specifically for the environment but the philosophy of Mahayana Buddhism is to help the environment. I am more excited by the environmental issue than the ceremony itself, which is just a religious ceremony... which is just me,” the Drukpa shrugs and you receive an unbidden insight into what it must feel like to be perceived as holiness incarnate.

The spiritual leader’s interest in protecting the environment, and the general Ladakhi sense of impending doom brought on by climate change and the melting glaciers – no doubt worsened by the cloudburst of 2010 that left great destruction in its wake – has led to the launch of many initiatives. One is the use of filtered instead of mineral water by trekkers in the Hemis national park. The Drukpa is also encouraging eco-friendly means of transport like walking and bicycling through padyatras and cycle yatras. “Ladakh is on the top of the Himalaya and 75 percent of all people depend on Himalayan waters so we have to really look after them. The environment is a big issue,” he says.

This concern for the natural world extends to animals and the cheerful Padma Tashi, president of the Young Drukpa Association points you to the Live To Rescue Stray Animals Care and Management Centre (SACMC), which rehabilitates injured animals and shelters even aggressive stray dogs. “The government wanted to cull the dogs but that’s not a real solution so this centre was started,” Tashi says. There’s much that states like Kerala that recently opted to decimate its strays could learn from Ladakh.

There is much that the rest of India too can learn. Sadly, the ‘ugly Indian tourist’, who only really discovered the region after the stupendous success of Three Idiots, leaves a trail of trash in his wake. “They throw plastics about even if you tell them not to and clean their cars in the lakes and rivers,” Jigmet, the guide, laments.

You try not to be the embodiment of the ugly Indian tourist at the Shey nunnery where you’ve chatted with 40-year-old Jigmet Palden Lamo, originally from Choglamsar, who has been a nun for 20 years. One of five children and the only one in her family to opt for the religious life, Lamo never wanted children or a family of her own. “You can’t think if you do that,” she says pointing you towards the outhouse. Trudging there in the bright Himalayan sunshine even as the crisp air makes your teeth chatter, you wonder about the nuns traversing this distance to relieve themselves in the middle of the subzero night. Then, once you get there, you gawk at the dry composting native toilet, that strangely enough, brings to mind the outhouse of long-dead relative’s home in Kerala, a pit in the ground where he, frightened that he’d be accused of violence in his dotage, disposed a stray heirloom sword at the height of naxalite activity in the 1970s.

Crouching over that eco-friendly but fearsome loo, you think about mortification of the flesh, the environment, man’s place in the world, Time, the Himalayas, climate change and end-of-the-world neurosis. Is it real you wonder or is it all maya? When you arise, you see the snow covered mountains framed perfectly in the toilet window. Agnostic you might be but in that moment of oxygen-deprived relief, your blood once more thrumming in your ears as the Diamox wears off,

you think giddily that this is the best of all possible worlds; that perhaps in this life and in the ones to follow, and the ones left behind, you haven't been to a place quite as unsettlingly beautiful as this; and that perhaps, just perhaps, Divinity does exist.

<http://www.hindustantimes.com/travel/a-buddhist-tradition-guides-seekers-to-live-in-harmony-with-nature/story-Q2wdq2fd8vVyKrbo2AnrxJ.html>

March 6, 2016

Cardinal Turkson addresses GR 2030 on Catholic social teaching, integral ecology, sustainable development

Independent Catholic News

The President of the Pontifical Council for Justice and Peace, Cardinal Peter Turkson, delivered an address to the Global Responsibility 2030 conference meeting in Bad Honnef, Germany on Saturday. The full text of Cardinal Turkson's address follows:

In the name of the Pontifical Council for Justice and Peace, I am very happy to participate in this year's conference "Global Responsibility 2030" co-sponsored by the academic association Ordo Socialis[2] and the Katholisch-Sociales Institut of the Archdiocese of Cologne.[3] Also in the name of the whole Council, let me wholeheartedly congratulate Cardinal Oscar Rodríguez Maradiaga for so deservedly receiving the Ordo Socialis prize for his faith-filled Christian commitment and for the many valuable ways in which he has addressed problems of exclusion, poverty and governance.

In addition, please join me in looking ahead for a moment to next year. It will be an auspicious double anniversary. The Katholisch-Sociales Institut was founded in 1947. Then in 1967, Blessed Pope Paul VI founded the Pontifical Council for Justice and Peace. As we celebrate such special birthdays in the same year, the Pontifical Council for Justice and Peace is happy to honour the Katholisch-Sociales Institut as twenty years our senior!

At this point, I call on Pope Francis himself to introduce *Laudato si'* briefly in a short video. Let us watch it now.[4]

Here are some key take-aways from the video and from *Laudato si'* itself:

Catholic social teaching, integral ecology and sustainable development Our nature is created by God and surrounded by the gifts of creation

Our failures are that we over-consume and that we do not share the gifts of creation. We have tilled too much and kept too little - with dire consequences for the poor and the planet.

And so it is urgent that we change our sense of progress, our management of the economy, and our style of life. This coherent and sustainable approach to life is what we call integral ecology.

My contribution to today's reflections is entitled Catholic social teaching, integral ecology and

sustainable development, and what I hope to show is how the three elements of the title all converge in the ample proposals made by Pope Francis, especially in *Laudato si'*.

Sustainable development

Sustainable development is one of the greatest challenges facing the human family. The main idea recognizes that it is no longer sufficient to measure human progress only in terms of a growing Gross Domestic Product (GDP). GDP was always an inadequate measure of well-being. As a gross measure, it ignored significant variations of outcomes among sub-populations - and we now have disastrous gaps between the super-rich and the utterly destitute. As a single measure, it always ignored other essential foundations of well-being. This is especially so in the current global reality. So today, we slowly but surely acknowledge that social inclusion and environmental sustainability are intrinsic to true development. True development must be sustainable development. It must rest on three legs--economic, social, and environmental. And if one leg is neglected, then the entire structure collapses.

In many respects, sustainable development is a response to a problem of scale. Since the industrial revolution, which began in the 18th century, the global population has increased ninefold, and the global economy is now more than 200 times larger. And the trend shows no sign of slowing down. By mid-century, global population is expected to surpass 9 billion, and--on best estimates--the size of the global economy could increase threefold. This is a staggering change in such a short period of time, and it is bound to create economic, social, and environmental challenges.

From the very beginning of these "new things" or *res novae*, the Church sought to grapple with all this dizzying change. This is how modern Catholic social teaching was born--in Pope Leo XIII's effort to align timeless Christian principles with the *res novae* of the modern industrial economy. And yet, when the great encyclical *Rerum Novarum* was written in 1891, the technological revolution was still in its infancy. The age of steam and railways was well underway, but the age of electricity had just begun, and the great advances in automobiles and petrochemicals--to say nothing of information technology--still lay in the future. Since 1950, the economic potential from the technological revolution has increasingly but unevenly benefited the various corners of the world. The process began with inequalities including colonialism and even slavery; and the process remains very unequal, unfinished and, in some places, much retarded if not blocked.

While *Rerum Novarum* focussed on the conditions and rights of workers, it also contained some seeds of current ideas about our natural environment. For example, it stated that those who receive God's bounty in the form of natural resources or property should exercise their responsibility "as the steward of God's providence, for the benefit of others".[5] Moreover, *Rerum Novarum*--and all subsequent papal social encyclicals--warned about the tendency of modern capitalism to create stark divisions between rich and poor within countries, and between rich countries and poor ones. When the economic impulse is propelled primarily by self-interest, by greed, by zeal for material accumulation and unfettered consumption, the result is dysfunction and imbalance, and it leads to large numbers of human beings ignored, excluded, and discarded.

With its relatively narrow focus on growth, it leaves economies prone to damaging booms and busts.

In 2007, Pope Benedict XVI spoke of "eliminating the structural causes of the dysfunctions of the world economy and correcting models of growth which have proved incapable of ensuring respect for the environment".[6] This becomes the strong message of Pope Francis in *Laudato si'*. As the global economy expands in size and reach, so do its "short-sighted approaches to the economy, commerce and production" (§32). This gives rise, says Pope Francis, to a "throwaway culture", which is the driving force behind the economy of exclusion. The excluded are not even considered part of society, the Holy Father decries, they are the outcasts, the 'leftovers'.

But there's more to it. When *Rerum Novarum* was written, the scale of the global economy was much smaller, as was its impact on the earth and its natural systems and cycles. This is no longer the case today. In writing *Laudato si'*, Pope Francis consulted with some of the world's top scientists--including from here in Germany. The message is loud and clear--human beings are interfering with earth's natural cycles in an unprecedented and highly dangerous manner. The scale of human activity means that we are brushing against some vital planetary boundaries--including climate change; ocean acidification; deforestation; depletion of precious water resources; pollution from extensive use of fertilizers, and from the massive burning of fossil fuels; and the undermining of delicate ecosystems and the tragic loss of biodiversity.

Unique for a papal encyclical, Pope Francis references these dangers, especially in the first chapter, "What is happening to our common home". The reason is simple. If we do not slow down and re-assess our behaviour, we will destroy the bountiful earth given by God to all of us. In doing so, we undermine the conditions for human flourishing--especially for the poor and for future generations.[7]

This is why sustainable development is such a great challenge of our age. We must restore a proper sense of balance, and put the social and environmental pillars on the same level as the economic pillar. Sustainable development calls for a world in which economic progress is widespread, poverty is eliminated, the resources of the earth are shared fairly, the environment is protected from human-induced degradation, and all people can flourish.

In this spirit, the leaders of the world gathered in New York last September to endorse the 17 Sustainable Development Goals; and again at COP21 in Paris in December, to commit themselves to phasing out the use of dangerous fossil fuels. These goals are the right priorities for the world at this moment. They aim to make the economy work for everyone; to end the scandal of poverty and hunger in a world of plenty; to ensure clean water, accessible energy, health care and education for all; to protect the world's ecosystems and shift to a sustainable use of the earth's resources; and to build more inclusive, just and peaceful societies.

In this, the Sustainable Development Goals build on the momentum of the Millennium Development Goals. The earlier goals applied only to developing countries, and focused on a shorter list of priority areas including poverty, hunger, health, education, and gender equality. Yet they show what can be done when the world unites around a set of urgent moral priorities. Thanks to these goals, poverty fell precipitously, and health outcomes improved dramatically.[8]

The new goals are for everyone in every part of the world, and they encompass the full range of challenges facing our human family. So yes, the SDGs are more ambitious. Nevertheless, we have learned that, when people and especially their leaders focus on a concrete framework for action, success is possible.

The market system is certainly capable of generating wealth and delivering economic growth. We can see that. But it cannot really go beyond this. We can see that too. The market does not guarantee social inclusion, and it certainly does not seek to sustain our limited natural resources. So the market alone will not be able to bring about sustainable development.

The problem, says Pope Francis, is not so much the market economy itself, but the ideology that too often lies behind it--the "deified market" or the "magical conception of the market" which resist the necessary political oversight and regulation. "Politics must not be subject to the economy, nor should the economy be subject to the dictates of an efficiency-driven paradigm of technocracy" (§189). The solution, according to Catholic social teaching, is to choose solidarity over self-interest, the common good over profit maximization, integral human development over materialism, and sustainability over short-termism. That does not mean rejecting the market; it does mean recognizing its clear limits, and keeping it under human and ethical control.

Speaking of solidarity, let me note the wonderful stance of contemporary Germany in this regard. This country's reception of refugees is a dramatic, concrete exercise of compassion towards those who are excluded and marginalized. Here too, sustainability is vital. As Pope Francis spells out:

With regard to migration, there is a need for mid-term and long-term planning which is not limited to emergency responses. Such planning should include effective assistance for integrating migrants in their receiving countries, while also promoting the development of their countries of origin through policies inspired by solidarity, yet not linking assistance to ideological strategies and practices alien or contrary to the cultures of the peoples being assisted.[9]

The plight of migrants and refugees has been an impassioned element of the current papacy; your response in Germany is truly an exercise of *Misericordia* within this great Year of Mercy.

Integral human development, integral ecology and Catholic Social Teaching

So far, I have focused my remarks on sustainable development. In *Laudato si'*, however, Pope Francis is calling for something broader and more encompassing than what the world means by sustainable development. He is calling for "integral and sustainable human development". This might seem like merely adding the extra word "integral", but that extra word makes all the difference! In Catholic social teaching, integral human development refers to the development of the whole person and every person. Such multi-faceted development goes well beyond an ever-expanding GDP, even a better-distributed one, and merely economic or material progress. It encompasses the cultural, social, emotional, intellectual, aesthetic, and religious dimensions. It is an invitation for each person on the planet to flourish, to use the gifts given to them by God to become who they were meant to be.

This more encompassing and holistic approach to development goes well beyond narrower reductionist ones. Development should not be conceived of in purely technocratic terms that set aside moral considerations. *Laudato si'* strongly condemns the dominance of the "technocratic paradigm". By this Pope Francis means the tendency to take efficiency and productivity as the benchmarks of success, and to see nature as something to be manipulated, mastered and controlled, with no concern for its inherent value or limits. In turn, this leads to a temptation to seek "infinite or unlimited growth" and an inclination to put individual benefit ahead of the common good. It leads to the tendency to define economic success based on profit and material calculation, which reflects a disordered desire for instant gratification. According to Pope Francis, it is precisely such a short-sighted and self-serving attitude that lies behind the social and environmental crisis. "The alliance between the economy and technology ends up side-lining anything unrelated to its immediate interests" (§54).

In practice, this calls for a re-assessment of our obsession with GDP growth and consumerism. *Laudato si'* notes that some countries will indeed need higher economic growth--namely, the developing countries who justifiably hope to improve their living standards. This is a matter of justice. But just as important, the richer countries might need to reconsider their own lifestyle and the role of merely economic growth. They (we!) must re-assess the whirlwind of consumerism that drives their growth.

Pope Francis is calling on all people to pursue a kind of progress that is more integral, more sustainable, and ultimately more worthwhile. This is one facet of the Pope's integral ecology: the value of integration and harmony of our lives with the natural world (§225). It comprehends "our unique place as human beings in this world and our relationship to our surroundings" (§15), in the varied aspects of our life, in economy and politics, in various cultures, in particular those which are most threatened, and in every moment of our daily lives.

In particular, we must not forget the poor of today "whose life on this earth is brief and who cannot keep on waiting" (§162). In the contemporary world, where "injustices abound and growing numbers of people are deprived of basic human rights and considered expendable", working for the common good means to make choices in solidarity based on "a preferential option for the poorest" (§158).

The common good also regards future generations: "We can no longer speak of sustainable development apart from intergenerational solidarity" (§159). Here, in the context of integral ecology, Pope Francis invokes care for our children to formulate his pivotal question about the environment: "What kind of world do we want to leave to those who come after us, to children who are now growing up?" (§160).

Conclusion

I have spoken about supplanting traditional market thinking that distorts the full notion of integral and sustainable human development. But this is not a call for pre-industrial romanticism. Rather, I would wish to see the tools of the market and the skills of its experts applied to achieving full human flourishing and sustainable development. Rapacious profits are not intrinsic to well-functioning markets; corruption, bribery, and cruelty are not intrinsic to well-functioning

markets. Indeed, the opposite is true. Better governance means greater genuine prosperity. Both classical and contemporary theorists point to the basis of well-functioning markets in certain virtues such as trust, honesty, solidarity, reciprocity, and cooperation. If anything is intrinsic to markets, it is not vice but virtue. So there is nothing strange about challenging the markets to produce virtuous outcomes such as common good, sustainability and solidarity. This is the best of what the former MDGs and the new SDGs hope for and strive for.

Such hope echoes the magisterium of Pope Francis. Overcoming the interrelated social and environmental crises will require a wholly different attitude--a cultural revolution, he says. By this, the Holy Father does not mean a naïve rejection of technology and the benefits of modern society. No, he means putting human ingenuity in the service of a better kind of progress--one that is healthier, more human, more social, and more integral. In turn, this calls for us to overturn what he calls the myths of modernity--individualism, unlimited progress, competition, consumerism, a market without rules. Pope Francis is calling for sustainable development, yes, but ultimately for a deeper vision of what is to be served by that development: the Earth returned to its health and beauty, home for all our future generations. For this we must pray to work with each other, guided by God, in order to make the Earth worthy once again of comparison with Heaven. Dein Wille geschehe, wie im Himmel, so auf Erden. - Thy Will be done on Earth as it is in Heaven!

Cardinal Peter K.A. Turkson

President

[1] With gratitude to Anthony Annett (New York) and Robert Czerny (Ottawa) for help in drafting and editing this address.

[2] ORDO SOCIALIS for the Promotion of Christian Social Teaching
<http://ordosocialis.de/en/wir-ueber-uns/>

[3] Located in Bad Honnef.

[4] English: <http://thepopevideo.org/en.html>

[5] Encyclical Rerum novarum, Leo XIII (15 May 1891), 22.

[6] Address to the Diplomatic Corps Accredited to the Holy See (8 January 2007): AAS 99 (2007), 73.

[7] Easter Island is an illustration of reckless practices leading to near-extinction.

[8] The following are significant improvements since 1990:

- people living in extreme poverty almost halved, from 1.9 billion to 836 million

- undernourished people in developing countries almost halved, from 23 percent to 13 percent
- deaths of children under five down by more than half, from 12.7 million to 6 million
- maternal mortality rate has declined by 45 percent
- new HIV infections fell by 40 percent between 2000-2013. 13.6 million have anti retroviral treatment, up from just 800,000 in 2003
- lives saved from various diseases: AIDS, 7.6 million (1995-2013); malaria, 6.2 million (2000-2015); tuberculosis, 37 million (2000-2013).

Source: *The Millennium Development Goals Report 2015* (United Nations).

2 billion people have gained access to better sanitation.

[9] Pope Francis, *Address to the Diplomatic Corps accredited to the Holy See*, 11.01.2016.

<http://www.indcatholicnews.com/news.php?viewStory=29576>

March 7, 2016

What If Animals Believe in God?

By Andrew Aghapour
Religion Dispatches

Chimpanzees believe in God. This news, widely reported [last week](#), is only a slight exaggeration. Using hidden cameras, scientists have indeed captured footage of chimpanzee behavior that resembles religious ritual. In the footage below, groups of chimps can be seen throwing rocks into the crevices within trees:

https://www.youtube.com/watch?time_continue=38&v=W_VGnp-4bg

The rocks pile up to create something resembling an altar. This “ritualized behavioral display” apparently has no evolutionary function, and instead resembles religious rituals from humanity’s archaeological past.

This isn’t the first discovery of animal behavior resembling religion. Elephants and dolphins, for example, have [burial rituals](#) for their dead.

More importantly, if animals were conclusively shown to have religion, this would represent yet another blow to the longstanding notion that humans are, somehow, fundamentally different from other animals. Octopi use [tools](#). Capuchin monkeys have [symbolic language](#). Orcas have

[culture](#). Dolphins have [self-awareness](#). Is religion, too, something that we share with beasts? If animals can in fact have religion how might this change our ethical obligations towards them?

To pursue these questions further, the Cubit reached out to religion scholar Aaron Gross, author of a 2014 [book](#), *The Question of the Animal and Religion: Theoretical Stakes, Practical Implications*. Gross, an Associate Professor of Theology and Religious Studies at the University of San Diego, and the founder of [Farm Forward](#), met with Cubit co-editor Andrew Aghapour at a coffee shop in Chapel Hill, North Carolina to explore how religion applies to elephants, dogs, chimpanzees, and factory farming.

This interview has been edited for clarity and length.

As a scholar of religion, why do you think it's wrong see religion as exclusive to humans?

I think most of us have the sense that whatever religion means, it's not obvious. It's complicated, perhaps beyond words—similar to a concept like God, which is, within classical theology, always something you can't quite describe. So the first thing I would say is that to utterly exclude animals from the phenomenon of religion is to pretend we know what it is more than we do. That's bad scholarship. It's also bad theology.

I can imagine skeptics saying that religion requires belief, and beliefs are made up of symbols. If so, why would it be wrong to say that religion requires symbolic language and that it therefore doesn't occur in animals?

It may not be wrong to say that religion requires something like symbolic language. But then the question becomes, "What is symbolic language, and can we really deny it to all animals?" Based on what we have learned about primates, elephants, dolphins, whales, we know that [they engage in] cultural transmission. We know that, for example, there are particular ways of using tools which are passed from grandparent to child, parent to child, that are specific to particular primate groups—or even particular crows.

Some of these [unique transmitted behaviors] appear to be utilitarian. But some of them are not, like where there are specific places of beauty that particular animal groups will go to. For example, chimpanzees go into particular waterfalls, dance in front of them, and sit on rocks afterwards, apparently just marveling at it. And the scientists who observe this tell us they have no utilitarian explanation for this—it seems to be aesthetic appreciation for the beauty, some kind of awe experience.

I don't think we want to say in advance there's *nothing* symbolic about that waterfall for them—that, "it's just H₂O that helps their bodies function." That seems implausible. So when we look really carefully at the richness of animal behavior, it's not so easy to exclude them from [religious] categories.

Another direction we might take is, well, who else gets excluded if we say religion is primarily about something like symbolic language? Can children have religious experiences then? Do we have to say religion is something that only adults or teenagers can have? I think many people

have the intuition that there is something spiritual to childhood. One of the things we foreclose when we cut animals out of this picture is the ability to acknowledge our own deep intuitions that, say, my four-year-old is in touch with something that's not just material, but is something we'd want to call religious.

So excluding animals from religion amounts to a kind of intellectual gerrymandering?

Yeah, I think that's a good way to put it. Excluding animals, when we look carefully, ends up forcing us to conclusions we don't necessarily want to accept. It is a kind of gerrymandering, and it's an ingrained habit. We keep repeating what we've been told, but when we pause and reflect, it's not so clear. Then, the next step is that people go back to their authoritative sources—Christians and Jews, for example, can look at the Bible. And it's astonishing to see that the Bible, in particular, does not exclude animals from religious life. And I mean this in very straightforward ways.

In the drama we have in Genesis of creation, sin, the Flood, and recreation: it's *all* flesh that becomes corrupted, not just humans. Animals seem to participate in that problem. When the Covenant with Noah is formed in Genesis 9, it is repeated seven times that that Covenant includes all creation, so animals seem to be able to enter covenants with God. Which is maybe the central metaphor of Jewish and Christian traditions.

So when we look into our intuitions and find it's hard to exclude animals, and we look to our scripture and find some affirmation of this idea, we might begin to doubt the exclusion of animals [from religion].

I wonder if religious concepts could therefore be useful for understanding animal behavior, or relationships between animals and humans. Observed elephant burial practices, for example, are remarkably complex. Upon the death of a matriarch, her family will surround her body and lightly touch it with their feet and trunks. Family members cry out and weep. The group eventually covers her with leaves and dirt and stays there for days. How would a trained scholar of religion make sense of that?

Mourning is a very sophisticated thing, and it's already a religious concept. We have a whole literature reflecting on the nature of mourning. Why do we need to mourn the dead? How does that, for example, preserve society? That moment when the elephants gather perhaps echoes something like what [French sociologist Émile] Durkheim called "collective effervescence," which he thought defined religion by helping people draw boundaries between what was sacred and what was not.

What is sacred? At the most simple level, we can say sacred is something special in a particular way. There's something special about the death of that animal. Presumably, that creates cohesion, which is important to a social mammal. There's no reason to think that the cohesion that's created is fundamentally different from the cohesion that's created in humans, when we [mourn].

Looking at [human and elephant burial rituals] in parallel is likely to lead to a richer understanding of what this phenomenon is. We might better know what it is to mourn.

What are the ethical ramifications of including animals in religion?

There's a remarkable book called [*A Dog's History of the World*](#), by Laura Hobgood-Oster, which looks at the amazing amount of scientific information we now have about dog-human relationships. What we find is that humans did not domesticate dogs the way we domesticated pigs and chickens and cows. It seems to be a relationship that wolves chose as much as humans chose. And when you look even deeper, you can see that the success of human beings depended on their relationship with dogs, which, for example, allowed them to hunt in ways that expanded their successfulness and range. The species *Homo sapiens* co-evolved with dogs. Our very DNA has been shaped in an evolutionary relationship with them.

So what does this imply about our ethical obligations to dogs in the contemporary day? We all talk about loving dogs and cats—that's a very felt affection—but I would not want to be a dog or cat in many places in the world. Huge numbers, as we all know, are confined in shelters for long periods of time where they likely have rather poor qualities of life. Millions are killed. Humanity was [evolutionarily] shaped by dogs, and we find ourselves treating these animals in a disposable kind of way.

When we start to think about it in this register, it's not just about cruelty anymore. I think it challenges us to go beyond the simple anti-cruelty ethic, and to acknowledge [one of] the deepest features of what it means to be human.

What about farm animals, which we have a very different relationship with?

Farmed animals are an even more extreme example. We, as a nation, have basically said that anything human beings want to do to farmed animals is acceptable. We do have anti-cruelty laws, which people will invoke with the honest hope that these protect farmed animals, but virtually every state has "common farming exemptions." [According to this] legal principle, if something is a common farming practice, it is legal regardless of any consideration for the animals' suffering.

Is this the relationship we want to have over life? That anything goes, so long as somebody can profit from it? That is what our current law says, and it means that people who want to do terrible things—like force chickens to live in spaces the size of a legal size piece of paper, with chopped off beaks and genetics so messed up that their very physiology causes them to suffer—are protected by the law.

This isn't the vision of the Good Shepherd we have in mind. If the shepherds of today extract profit for corporations at the expense of animal suffering, what kind of religious vision are we putting forth?

[Farm Forward](#) helps empower religious communities to go through their own process of discernment about what they believe about animals and to then get active. The most developed

project of this is called the Jewish Initiative for Animals, which just launched in January. We provide resources to Jewish institutions to allow them to look at where their food comes from and then ask, collectively, about what counts as “ethical food.” What does it mean to treat a chicken well? Do you want to be eating this many animals or should it be reduced? When you raise these kinds of questions, people light up.

This recognizes the way in which religion is present in everyday life. It not only does something really good for the animals by supporting a movement towards more humane farming, but it empowers people to live their values and in a most community-building way. Because nothing is more community-building than breaking bread together.

<http://religiondispatches.org/what-if-animals-believe-in-god/>

March 7, 2016

Living in a wavy universe

By Ilia Delio
Global Sisters Report

From the dawn of our species, what we know about the universe has come from the power of observation, that is, what we can observe in a light-filled universe. In the 13th-century Oxford theologian [Robert Grosseteste](#) described the beginning of all physical life from light. One of his major works *De Luce* begins with God's creation of a single point of light which, through expansion and extension, he claimed, evoked the entire physical order into existence. The expansion of light replicating itself infinitely in all directions, he speculated, is the basis of the created world.

Grosseteste was not too far from modern physics. In the early part of the 20th century, Albert Einstein announced his theory of general relativity (1916) in which he rewrote the rules for space and time that had prevailed for more than 200 years, since the time of Newton. Newton's physics stipulated a static and fixed framework for the universe based on concepts of absolute space and absolute time which were considered independent of one another. Instead, Einstein showed that space and time form a continuum and are part of the physical fabric of the universe. Einstein's revolutionary discovery was based on light and the equivalence of matter and energy which permeate the universe.

A year after Einstein announced his theory of general relativity, he predicted that the speed of massive objects would distort space-time, sending out [gravitational waves](#) or tiny ripples reverberating in the cosmos that can both stretch and shrink; however, until September 2015 the existence of gravitational waves had not been directly detected. Their [recent discovery](#) is truly remarkable because they were not seen but heard! Using powerful laser electromagnetic wave detectors, scientists could amplify the noise of the waves and measure them. Scientists were listening to nature, like a stethoscope on the heart.

Black holes are collapsed giant stars which become like cosmic sink holes that trap light and matter. They have been known to exist in the universe but until now there has been little evidence of their existence. The gravitational wave discovery is based on the cosmic peregrination of black holes. Scientists speculate that about 1.3 billion years ago two black holes swirled closer and closer together until they crashed in a furious bang. Each black hole packed roughly 30 times the mass of our sun into a minute volume, and their head-on impact came as the two were approaching the speed of light. The staggering strength of the merger gave rise to a new black hole and created a gravitational field so strong that it distorted spacetime in waves that spread throughout space with a power about 50 times stronger than that of all the shining stars and galaxies in the observable universe. This is what scientists at the Laser Interferometer Gravitational-Wave Observatory ([LIGO](#)) detected last September. They actually heard and recorded the sound of two black holes colliding a billion light-years away, producing a fleeting chirp which was recorded. This was the first time in the history of the cosmos that the human ear could actually listen to the secrets of nature; a new hotline to nature. Dr. Kip Thorne, one of the leading scientists in the discovery, said that until now scientists had only detected warped space-time when it is calm. The detection of the black hole collision revealed another side of nature's gravitational waves that could be likened to the ocean roiled in a storm with crashing waves.

The discovery of gravitational waves is truly awesome. The fabric of the universe is like a trampoline that can stretch or shrink due to massive objects like black holes colliding or like a mattress shaking when a sleeper rolls over, producing ripples of gravity or gravitational waves. This is no static, mechanistic universe; rather, our universe is a mysterious ocean of energy and matter in which space and time are interwoven and dynamic, able to stretch, shrink and jiggle. Even more incredible is the confirmation of black holes, the bottomless gravitational pits from which not even light can escape. The discovery of gravitational waves now gives scientists a new opportunity to understand the early universe and the powerful cosmic events that created them.

But what does this mean for us? Well, on the macro level not much. Life goes on with its ups and downs, births and deaths, good days and bad days, failures and achievements. But on a deeper level the discovery of gravitational waves tells us that science is living between mystery and discovery. It is as if astronomers are listening in on cosmic oracles and not yet quite knowing what to make of the strange sounds. The elastic nature of space-time almost makes time irrelevant in the vast universe, which means searching for the origin of the universe may not be, as we conceived on the human level, looking back; rather it may mean looking *forward*. The existence of black holes or massive star collapse, also points to the eerie presence of death in the universe from which mysteriously new elements of life emerge and converge.

Einstein did not believe in a personal God, but he did maintain that mystery permeated the universe. Reportedly he said to one of his skeptic acquaintances, "Try and penetrate with our limited means the secrets of nature and you will find that, behind all the discernible laws and connections, there remains something subtle, intangible and inexplicable. Veneration for this force beyond anything that we can comprehend is my religion. To that extent I am, in fact, religious."

The more we comprehend the universe, the more we see how truly incomprehensible it is — which leaves room for religion — but not a religion of the past or religion based on ancient

cosmology. The mysterious new universe calls for new religion, a renewed sense of divine mystery in the cosmos, a new religious myth, a new narrative that draws us into these cosmic waves that are, in some fundamental way, the source of our lives. We need a new religious sense of time and eternity as operative in the moment of occupied space, not as future events but possible events. As Christians in this vast, dark, wavy universe, what do we hope for? It is time to take a few cues from science, namely: 1) change the religious paradigm when the right time comes, 2) let go let God and 3) trust nature to generate new life. Scientists try to collapse mystery into data, but we believe in the divine mystery at the heart of matter and, for this reason alone, we should be the most trusting of nature because we believe that God is in the waves.

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<http://globalsistersreport.org/column/speaking-god/living-wavy-universe-38196>

March 9, 2016

Eco-theologian Fr. Sean McDonagh: Don't let this 'Laudato Si' moment pass

By Brian Roewe
National Catholic Reporter

On Sunday eco-theologian Columban Fr. Sean McDonagh wrapped up a three-city, 10-day speaking tour of the East Coast focused on his new book on Pope Francis' encyclical, "*Laudato Si'*, on Care for Our Common Home."

The book, similarly titled *On Care for Our Common Home* and published by Orbis Books, takes the encyclical's full text and adds McDonagh's reflections on its various themes: among them, climate change, biodiversity, water scarcity and threats to the oceans, and the food crisis. In addition, McDonagh recaps the development of Catholic theology on creation of the past half-century, and offers ideas on how to transform Francis' vision in *Laudato Si'* into meaningful action and a central piece of Catholic theology.

The tour, which ran Feb. 26-March 6, took him to parishes, monasteries and college campuses in New York, Washington D.C., and Boston. McDonagh spoke with *NCR* on Monday, weighing in on his tour, the encyclical and what comes next for the document that he said marks "an exciting moment for the church."

"There's just extraordinary possibilities in this document," he said.

Central to that, the Irish priest said, is a three-year synodal process aimed at taking the new teaching, "a new spirituality" that Francis offers in *Laudato Si'* and finding ways to put it into practice of the faith.

“It's new for a lot of us. Most of the people who go to seminaries and into theology didn't actually deal with any of these issues, so there's a difficulty,” McDonagh said, pointing in particular to Francis’ quoting of Ecumenical Patriarch Bartholomew in his frequent discussion of sins against creation, be it human-caused climate change or the loss of biodiversity due to pollution and deforestation.

“None of us here believe those are sins,” he added.

The first year of the synod would start at local parishes and dioceses, and ask people how they come to know the natural world, experience it and see their proper place within. Year two would shift to the national level, examining practices in each country, from energy usage to consumption to treatment of the oceans. In that process, he said, the church “would start to begin creating prayers and liturgies that support this new engagement and new spirituality and new ethics with creation.” The third year would take those efforts internationally.

“I think this would be a great service. It would be a catalyst, the church would be providing a catalyst. Because whether you like it or not, we’ve got to take these issues seriously. We haven’t taken them seriously for the last 50 years. If we don’t take them seriously, they don’t stop; they just continue, and we become less ready to deal with them into the future,” McDonagh said.

Francis’ encyclical offers the church an opportunity to become facilitators in the larger discussion of protecting the environment, the climate, the common earthly home. While the church has written and spoken of the need to care for creation before *Laudato Si’*, it was largely insufficient in depth -- he notes that the Compendium of the Social Doctrine of the Church, published in 2004, included half paragraphs each on climate change and biodiversity, and nine graphs on biotechnology -- or ultimately overlooked.

“This is potentially an extraordinary moment for the church,” he said. “... Now do we take it or do we go back into our burrows? I hope we take it.”

Below are excerpts from the McDonagh interview, which has been edited for clarity and length.

NCR: During this speaking tour, what were you hearing from people you encountered?

McDonagh: I was hearing from people that they would like to see the Catholic church giving leadership [on ecological issues], and particularly the theological side of things. There isn’t a Catholic institute here that actually has taken on board the theological side, with interdisciplinary approaches to this that would include physics, biology and chemistry and cosmology.

And the resources are there, and we need this. This is a huge effort, it’s not a simple thing into the future. We have an opportunity. If you would’ve asked me 10 years ago -- I’ve been at this since 1978, so I’ve been at it a long time -- if you had asked me six years ago, in my lifetime would something like this emerge, I would have no, there’s no possibility for this emerging. And it has emerged, but it’s 99 percent ahead of where most Catholics are. And it needs to be not 99 percent, it needs to be our lived doctrine and our lived practices from here on in. Now you need good theology to do that.

You were involved in the development of this encyclical. What was that process like? Were you focused on a specific aspect of the text?

Well, I was asked by Cardinal Peter Turkson in November 2013 to write a document for the Pontifical Council for Justice and Peace, and I wrote it up, like 30,000 words ... now eventually, in 2014, that kind of morphed into the beginning of the encyclical itself. So that whole section, basically, on what's happening in our world, those were issues I developed.

You're not the first theologian or church official that has made a point of talking about the encyclical in the U.S. -- for instance, Cardinal Turkson has given numerous speeches on the document. Do you see a particular importance of raising this conversation around *Laudato Si'* in the U.S.?

Sure. [Francis] quotes the New Zealand bishops saying 20 percent of the global population use up 80 percent of the resources of the planet. Now that's not just the United States, that's also Europe, that's also Japan, that's also 350 million people in China. So yes, he's very strong on that. One of the things he's very strong on he takes in from *Centesimus Annus*, in which Pope John Paul II talks about how, especially in the United States and Europe, we have a love affair with science, particularly with technology, because we think it's great. And we actually do think that some technology is going to solve the issue of climate change for us. And [Francis is] very strong on that: He says, No, that's not going to happen. He's not saying that technologies are not important -- and there's wonderful work being done in the United States, particularly on alternatives sources of energy and on batteries -- but he's saying we need lifestyle changes.

... So, yes, there's a huge message here. But I don't think the church here, the episcopal church here -- and that's true of Ireland, too -- have actually taken on board the profound message that it is. Because we're focused on the culture wars, all those things they come easier to us. We think we know more about that side of moral theology. But like with this, you're talking about making the planet a less livable place then for future generations -- that's the alternative. We could bring about geologic disorder, changes of magnitude within a hundred years if, for example, greenhouse gas emissions continue the way they do, the average global temperature rises to 4 degrees above what it was [before the Industrial Revolution]. That would be in 200 years, humans would have caused a geological change that is irreversible; most geological periods are 20 or 25 million years or 40 million years. So we don't take those on board as part of our pastoral. Now I think we got to start doing it.

Beyond lifestyle changes, Are there other messages you see of particular importance for an American audience?

Two areas that will be most difficult is the new understanding of ethical imperatives. The people who opened up the prairies here in the 19th century did not think they were doing wrong. The people who destroyed the tropical forests in the 1950s, '60s and '70s and '80s in the Philippines didn't think they were doing morally wrong things. So that is a huge change. So how do we now develop the moral imagination that includes those things? That's number one.

And then number two, from a theological and spiritual perspective, [Francis has] now come with an extraordinary new teaching that species have intrinsic value ... and so a new spirituality has to include our understanding and intimacy with the natural world. So here in Boston College, how many trees actually have you named outside, and have you named how supportive they are of other species? That's the kind of intimate understanding that will become part of an ecological theology.

Now, it's challenging. I'm not saying that it's going to be easy, but that's what he has laid out for us, that we should be doing. And it's going to take different kinds of spiritual and theological work to do that, but the most certain thing it's going to do is we're going to have to work with other people. We're going to have to work with the scientific community, to work with other religious traditions, so we can't do it alone. But we will also need very good rituals, very good prayers, very good concerns for our moral life: How do we actually assess this new change? So all of that would need to emerge from the pastoral world.

Your book tour arrived in the midst of a U.S. presidential election. How might reflection on *Laudato Si'* relate to how someone may view the issues that arise this election season?

Very easy. I mean, you had one candidate the other night in Detroit telling us that he would take apart the Environmental Protection Agency. Now can you think of anything more irresponsible? So what he wants to do, he wants to give back to the corporate world the permission to pollute everything, with PCBs [man-made toxic chemicals banned from U.S. manufacturing in 1979] that continue in our system and the system of all creatures and actually poison and are toxins to our children and their children.

So I would say be seriously real about what people are saying to you. If they're not saying anything to you on climate change, they're living in cloud cuckoo land. And it's your children that are going to face it, and your grandchildren. The reality of climate change is not the end of the next 1,000 years. We now know if we continue as is, even after the Paris Agreement with the things we've put in there we're willing to do, it would still be a 3.8 degrees Celsius rise, which would be close to a geological order magnitude change. We're only at the beginning, and anyone who tells you different is just not telling it as it is, and they're fooling you.

You've said *Laudato Si'* is not a policy document, but that it could help in that realm. What types of policies might develop from this encyclical?

Fundamentally, one is in power and energy. ... In the United States and Europe we give billions, billions, billions of dollars to the fossil fuel companies. So we got to start a different way of actually creating energy. And to a fair assessment, a lot of it is beginning to be here, but it needs to be supported. And then we need to be extraordinarily critical of people of toxify our planet. ... So we have to be careful that we don't allow this planet to become more and more toxified. And the pope is very good on that. I mean, he studied chemistry himself, so he knows the persistent realities of toxins in the atmosphere.

How do you transition Francis' vision in the encyclical to consideration by policymakers?

To a certain extent, that transfer is beginning to happen. I've been at a lot of the United Nations Framework Conventions on Climate Change. ... The first time that the church ever made, on policy levels, an impact that I felt was actually at the Paris one in December. Many, many people quoted *Laudato Si'* as the beginning of creating now policies in terms of the whole era of fossil fuel, reducing it -- mitigation -- and then also the alternatives, and how to support the alternatives and the kinds of economic policies that are necessary to do that. So here was a document that was being used and quoted for that. ...

We're beginning to come of age and this is a great era for us. Don't let it pass -- that's my thing to anyone I talk. This is a wonderful time but wonderful times can be let pass. And I keep pointing out what Pope John Paul II said: "Concern for the environment is an essential part of our faith." He said that in a 1990 document [World Day of Peace Message], which is 35 years ago, so it hasn't actually percolated with the people because we didn't actually teach them that. And that's my great fear will possibly become of *Laudato Si'*, that if we don't actually now address them in these couple of years with a good tool like the synodal process, 25 years from now, someone could be back here and say, 'Sorry God we never got around to implementing these.' That's my concern.

In the period between Benedict's resignation and Francis' election, you [wrote in NCR](#) that the church's teaching on the environment was "still light green." How would you assess it now?

I think we've at least passed our master's, and probably getting up to doing our Ph.D. It's huge! It's extraordinary, every aspect of [*Laudato Si'*] is extraordinary. And it's only when you begin to think what was there beforehand, like the Compendium of the Social Teaching of the Church, a half a paragraph on climate change -- and not serious. And you could say, 'Well that's not important,' but it's totally important. A half a paragraph on biodiversity? That is totally irresponsible.

So this is wonderful. It's real, it's of an age and the man has the courage to do it and write it well. So we have gone from just post-kindergarten to our master's degree.

How do we get to that Ph.D. level?

We have to actually, when we're reading it and we come to this thing from Bartholomew [sins against creation], we need to put the boots down to the floor and say none of us believes that, how are we going to do that here in this community? How am I going to get close to the oak tree? How am I going to know that? How am I going to know what the insects are doing in my community? How am I going to know the birds -- there are 9,000 species of birds, 3,000 of them are on the red list, are they here in my community? Is there anything we're doing? Add it to the theology that needs to be done and the prayers and the spirituality.

It's a totally exciting, totally open world into the future. And I think it's a great time to be a Christian. I say of *Laudato Si'*, everyone says, well, it's about climate change; well that's not it, it's 10 other things. It's a good ecological document. It's a good social [document], he's really good on the impact of the destruction of the earth on the poor, he's very good on that. But it

really is an evangelical document. If someone asked me, ‘Look could you give me a book, how to be a Christian in the 21st century?’ I’d say, take this book, and you can have the Bible, as well.

<http://ncronline.org/blogs/eco-catholic/eco-theologian-fr-sean-mcdonagh-don-t-let-laudato-si-moment-pass>

March 9, 2016

An Evangelical Movement Takes On Climate Change

By Tik Root
Newsweek

John Muir was a fervent believer. Not just in science or conservation or the National Park Service, which he championed. The founder of the Sierra Club and father of American environmentalism also believed in God. “The forests of America, however slighted by man, must have been a great delight to God,” Muir wrote in his 1897 essay “The American Forests.” “[For centuries] God has cared for these trees, saved them from drought, disease, avalanches, and a thousand straining, leveling tempests and floods; but he cannot save them from fools.”

This sort of religious language was “very much present in early conservation movements,” says Evan Berry, an associate professor at American University and author of [Devoted to Nature: The Religious Roots of American Environmentalism](#). George Bird Grinnell, founder of the Audubon Society, also invoked faith, and many of the environmentalist leaders in the late 19th and early 20th century were Congregationalists, a traditional Protestant sect, says Berry.

But then God abandoned the forest. During the Great Depression and two world wars, environmentalism took a backseat to what felt like more pressing issues, only to re-emerge in the 1960s in more secular forms, like Rachel Carson’s book *Silent Spring*. The new wave, Berry says, “wanted to build practical, policy-driven solutions to environmental problems without getting caught up in the messiness of religious ethics.”

For years, conservationist and faith-based views on the environment progressed on separate tracks, but in [1986](#) Prince Philip, then president of the World Wildlife Fund, organized a summit where leaders of the five major world religions—Buddhism, Christianity, Hinduism, Islam and Judaism—discussed how their faiths could help save the natural world. By the 1990s, religious groups such as the World Council of Churches were participating in international climate debates and conferences.

In the late 1990s, the Evangelical Environmental Network helped shepherd the Endangered Species Act through Congress, characterizing it [to The New York Times](#) as the “Noah’s ark of our day.” In 2002, the network launched a headline-grabbing “What Would Jesus Drive?” campaign to call attention to fuel efficiency. In 2006, the group organized the Evangelical Climate Initiative, which [released a statement](#) making a moral argument for climate action. Dozens of

evangelical leaders signed, including Rick Warren, Leith Anderson and Joel Hunter, whose megachurches have tens of thousands of members. Meanwhile, the Regeneration Project's "Interfaith Power and Light" campaign, which launched in 2000 as "a religious response to global warming," rapidly expanded its membership. According to the campaign's president, the Reverend Sally Bingham, the organization comprised 14 congregations in California in 2001; today, it is in 40 states and includes some 18,000 congregations.

The interfaith section of the 2014 People's Climate March in New York City saw thousands of people from more than 30 faiths—Baptist, Zoroastrian and everything in between—rally for climate action. The [World Council of Churches](#), representing hundreds of millions of Christians, has committed to divesting its multimillion-dollar endowment from fossil fuels. At December's historic climate summit in Paris, there were morning worship groups, Vatican negotiators and an exhibit at Notre-Dame Cathedral called "[Ode to God's Creation](#)." "None of this was really on the horizon 20 years ago," says Mary Evelyn Tucker, co-director of the Forum on Religion and Ecology at Yale University. "There has been an explosion."

Still, America's attitude toward climate change continues to be characterized by apathy. According to a [2014 Gallup poll](#), Americans rank the environment and climate change near the bottom of their priority list; putting the concerns at 13th and 14th (out of 15), respectively. By comparison, a [September CBC poll](#) showed that Canadians rank the environment second (out of 13) on their list of most important issues, ahead of education, jobs and foreign policy. And caring in the U.S. breaks along political lines. A 2014 Public Religion Research Institute poll shows that while 65 percent of Democrats believe climate change is manmade, only 22 percent of Republicans do.

As faith-based environmental activism—"creation care," as many call it—continues to grow, it hopes to help America break through some of these barriers. Whether that means reaching conservative politicians through faith or prompting action from the pews, the idea is that religion can move those unconvinced by the science.

Blown Off the Commode

On February 23, 1980, at age 16, Charlotte Keys was born again. "It gave me the strength and the ability not to have fear," she says of her Pentecostal faith. It also led her to see homosexuality as a sin, evolution as dubious and abortion as violating the sanctity of human life. That's the word of God. And for the same reason, she's an environmentalist.

Keys found her calling about a decade later. She was working in the county clerk's office, where she came across documents detailing a chemical spill in the Web Quarter neighborhood of Columbia, Mississippi, where she grew up. "When I discovered that we had a lot of health problems going on, the Lord just moved in my spirit," says Keys. "God's people don't deserve this."

According to the Environmental Protection Agency, the Reichhold chemical plant was home to turpentine, diesel, the now-restricted pesticide pentachlorophenol and countless other chemicals. In March 1977, it exploded, and the Web Quarter took a direct hit. One local recalls her neighbor

across the street being blown off the “commode.” Residents say chemicals seeped down the runoff ditches and into the ground, and for years the grass would spontaneously burst into flames. The EPA declared the area a Superfund hazardous waste site. Workers in protective suits cleaned up what they could, and activists say the company disposed of the rest. Although the EPA took the site off its priority list in [2000](#), many in the community believe the Web Quarter remains contaminated. “I’m scared I won’t wake up one morning,” says Mack Oatis, who has lived in the neighborhood most of his life.

Appalled, Keys founded a nonprofit called Jesus People Against Pollution in 1992, and for more than two decades that’s been her mission. She calls it her “kingdom assignment” from God. Gradually, her work has grown to include not only the Reichhold spill but also clean air and clean power legislation, issues she collaborates on with organizations such as [WE ACT](#), an environmental group based in Harlem, New York. Still, her main goal is to relocate as many people as possible from the Web Quarter to a small community on the other side of town to be made up of a church, 16 housing units, a snack bar and her own house. With time and financial support from her husband, Willie, she’s amassed about 9 acres of land and poured a 1,800-square-foot concrete pad upon which she plans to build the American Temple Apostolic Church.

In the meantime, her ministry is in a small conference room at a Comfort Suites off U.S. Highway 98. It has a lectern that doubles as a pulpit, and there’s a continental breakfast in the lobby. “Whoever shows up, shows up,” the Reverend Keys says on her way to service one Sunday. The three rows of tables can get cramped when 15 people come, but sometimes only one or two attend. After a quick stop to pick up one of her congregants, she heads to the hotel.

Once inside the conference room, she passes around a handout with “God creates” at the top. Aside from the one man who came with Keys, there is a couple, Lakeidra and Maurice Keys (no relation), and their four children. To begin the morning, they all join in a rendition of the gospel song “What a Mighty God We Serve,” which is followed by an opening prayer and a bit more singing. Then it is time to focus. “Look at your scripture.” Lakeidra says, separating Kyliah, 7, and his brother, Jyisiah, 5. “Pay attention.” Distractions dealt with, Keys opens to the Book of Genesis. “In the beginning, God created the heaven and the earth,” she booms. “But do you think God created this stuff for us to mess it up?” “No,” comes the response in imperfect unison.

Keys is far from the only religious figure fighting for environmental action. The Reverend John Rausch in Kentucky is going after Big Coal. The Reverend Jeffrey Allen is drawing attention to polluting practices such as mountaintop removal in West Virginia. And Katharine Hayhoe, director of the Climate Science Center at Texas Tech University, is breaking the climate activist mold. She used to rely solely on science to make the case for why we need to deal with climate change, but she frequently sensed a disconnect with her Texan audience. Trying a new tact, Hayhoe started to bring her evangelical beliefs into the conversation. Initially, she says, it felt like “pulling down your pants in public,” but she and her pastor husband went on to author the book *A Climate for Change: Global Warming Facts for Faith-Based Decisions*. The book’s creation care message took off and landed her on *Time*’s list of [“The 100 Most Influential People”](#) and Showtime’s [Years of Living Dangerously](#), a program about global warming. “Until we connect all those [scientific] facts to our hearts,” says Hayhoe, “we lack the motivation to act.”

Momentum for this moral approach to climate action reached new heights when Pope Francis made environmentalism a pillar of his papacy. The effort began with his choice of namesake—Saint Francis of Assisi, who is considered the unofficial patron saint of ecology—and reached a crescendo this past summer with the release of a [nearly 200-page](#) encyclical, “Laudato Si’: On Care for Our Common Home.” In it, the pontiff argues that we need to accept climate change as real and recognize that if we don’t do anything about it, it will soon cause devastation to the poor and disadvantaged across the world. Speaking from the South Lawn of the White House this fall, Francis issued a call to action: “Climate change is a problem which can no longer be left to our [future generation](#). I would like all men and women of goodwill in this great nation to support the efforts of the international community to protect the vulnerable in our world.”

It appears his people may be listening. [Polling](#) from the Yale Project on Climate Change Communication shows that between March and October the number of American Catholics who say they believe in climate change rose from 64 to 74 percent; the number who say the issue is very or extremely important to them personally jumped from 15 to 23 percent.

Sierra Club Weirdos

Keys remembers the 1990s fondly. She says Jesus People Against Pollution had 500 members, held rallies and marched. Residents remember her coming around and asking them to sign a petition demanding restitution from the chemical company. Decades later, though, many of the houses in the Web Quarter are run-down, and people still complain of a litany of ailments they believe are linked to the chemical plant—from cancer to super-sized mosquitoes. Some direct their frustration at Keys, accusing her of hoarding settlement money or being driven by ego. More often, they’re sullenly indifferent. When Keys organized an October community meeting about the Clean Power Plan at a neighborhood church, only a handful of people showed up. One girl, wearing an orange T-shirt that read, “Be the change you wish to see in the world,” spent much of the time staring at her phone. Another man fell asleep, snoring.

“It’s a process,” says Keys, standing on her front porch. “And the process is not easy.” She steps inside briefly and comes back out dabbing tears. Having sunk all of her resources into her kingdom assignment, she and her husband live in a double-wide trailer on Friendship Church Road. Its blue paint is peeling, the floor is so swollen with water from a 2014 tornado that the door doesn’t quite shut, and the roof sometimes leaks when it rains. “I never thought in a million years I would be doing what I’m doing and seemingly to be stuck,” she says.

Keys’s struggles point to some of the hurdles facing the creation care movement. Declining church attendance, for one, has limited the reach of some faith leaders. Perhaps more problematic, however, is that religious donor bases have been historically tied to the fossil fuel industry or the political right—entities hardly eager to finance climate awareness. That often pushes activists toward more secular environmental groups, which in turn can put them in the difficult position of choosing between funding and their beliefs.

“I pray that my faith-based belief doesn’t drive help away,” says Keys. “To some extent, it may.” But for her, separating religion and the environment is impossible. “This earth belongs to the Lord, whether we like it or not,” she asserts. Evangelical Environmental Network President

Mitch Hescox is in a similarly sticky situation. “We consider creation care an aspect of the pro-life movement,” he says. That’s why he steers clear of “the far left” and groups like the Sierra Club, which he calls “a bunch of weirdos.”

The problem is that many powerful Christian groups toward the right of the political spectrum are wary of—if not outright hostile to—creation care. “As soon as the [Evangelical Climate Initiative] was launched, a network of Christian right leaders forcefully attacked,” writes sociologist Lydia Bean in a paper titled [“Spreading the Gospel of Climate Change.”](#) Unlike the Endangered Species Act or “What Would Jesus Drive?” efforts, the creation care push in the mid-2000s both affirmed human-caused climate change and called for federal legislation to lower greenhouse gas emissions. “[This went] directly against the anti-big-government, anti-regulation ideology that keeps the GOP coalition together,” says Bean. In the face of stiff resistance, many of the initiative’s signatories went quiet, support wilted and progress slowed.

At the center of the backlash to creation care is theology professor Calvin Beisner. He’s the founder of the Cornwall Alliance, a nonprofit that argues the evidence for catastrophic anthropogenic climate change is not convincing, that humans hold “godly dominion” over the planet and that free markets are the best engine of ecological stewardship. Through media campaigns and advocacy—like [Resisting the Green Dragon](#), a set of 12 DVDs and a book outlining the “Christian response to radical environmentalism”—Beisner has rallied the Christian right. By making creation care controversial, he’s been able to keep risk-averse evangelical leaders away and undoubtedly made it easier for establishment GOP politicians—such as Jeb Bush—to stand against it as well. “I don’t get economic policy from my bishops or my cardinals or my pope,” [said](#) the former presidential candidate, one of many Republicans who have dismissed the “Laudato Si” encyclical.

Nevertheless, creation care appears to be adapting and growing. After the Evangelical Climate Initiative stumbled, leaders of the campaign realized they needed widespread, on-the-ground support. “We did not have a strong grassroots movement,” says Hescox. The group, he says, has since increased outreach efforts and grown from about 15,000 people to over 800,000 in the past six years. The aim is to reach 3 million within the next two.

If that’s to happen, certain demographics will likely be key. Public Religion Research Institute [polling](#) found, for example, that Hispanic Catholics are much more likely to agree that global temperatures are rising primarily as a result of human activity than their white counterparts (61 versus 40 percent). The creation care message is also much more likely to resonate with younger Christians. “We are willing to vote for people who are willing to take action on climate,” says Rachel Lamb, 26, the spokeswoman for Young Evangelicals for Climate Action, a nonprofit focused on mobilizing evangelicals under 30. They have people on the ground in roughly a dozen states, with a focus on conservative swing districts. By starting from a Christian foundation, Lamb says, the organization is able to visit campuses (like Oral Roberts University in Oklahoma) unlikely to host traditional environmental groups. If they can get Christian youth on the side of environmentalism, then it won’t be long before religious and conservative leaders have no choice but to listen.

That Triggering Moment

It was a youth group that convinced former Senator Bob Inglis to shift his stance on climate change: his kids. When they reached voting age, they [asked](#) the South Carolina Republican to reconsider the issue. Driven by science and faith, Inglis has gone on to propose conservative solutions—like pairing carbon pricing with tax cuts—that led *Slate* to dub him [“America’s best hope for near-term climate action.”](#) “We are now stewards in this wonderful creation,” he said in [an interview with the Evangelical Environmental Network](#). “Part of being faithful, it seems to me, is coming up with a way so that our society can really respond to this challenge of energy and climate.”

Reverend Gerald Durley is another creation care convert. The retired pastor at Atlanta’s Providence Missionary Baptist Church once scoffed at the idea of [prioritizing polar bears](#),” preferring to emphasize topics such as racial justice or health. Then, in the mid-2000s, he saw a screening of *The Great Warming*, a documentary that used both science and evangelical thinking to talk about the dangers of global warming. “After that, I began to connect the dots,” Durley says. He now believes climate change is one of the most urgent issues he can address from the pulpit.

“This will be the civil rights issue of our time,” says Durley, an International Civil Rights Walk of Fame [inductee](#) who marched alongside Martin Luther King Jr. He points out that in the 1950s and ’60s “there were hardcore skeptics who said, ‘You’ll never vote’”—that African-Americans might march but would never make it to the polls. Durley says faith was integral in proving that prediction wrong, and the lesson still applies today. Churches can be a powerful organizing tool, and religion offers a moral backbone and motivation to supporters. Another key, says Durley, is a flashpoint that brings a movement to the masses. A major catalyst in the civil rights movement, he notes, was the 1963 bombing of a black church in Birmingham, Alabama, that killed four young girls and injured numerous people. The incident led to national outrage, action and eventually change.

Once people form a personal connection to the issue, religion can be a strong motivator, says Cybelle Shattuck, a University of Michigan researcher who has been looking at the factors that influence faith-based environmental action at the community level. People she’s interviewed have told her “their faith gives them the ability to try something even if they don’t know they can do it.” And former Secretary of the Interior Bruce Babbitt, an environmental advocate, says faith is pushing the climate movement closer to real change. “Political tipping points do come,” he says, “and they change us overnight.” Police violence against minorities is a recent example. Following a string of high-profile incidents, [Gallup polls](#) show that the percentage of Americans who report caring “a great deal” about the broader issue of “race relations” has jumped from 17 to 28 percent in just the past year.

These days, Christian environmental advocates like Keys are crisscrossing the country, hoping to bring about a similar shift in support for sustainability and conservation. That often means long stretches on the road, dwindling bank accounts and plenty of visits to Washington, D.C., including stops at the White House. Keys doesn’t know where all of this running around will ultimately take her or the creation care movement, but she’s heartened by the community of

supporters and colleagues steadily growing around her. “I’ve never seen this magnitude of effort from the religious community placed on environmentalism,” Keys says. “It’s going to take the Christians who have the fear of God in them.”

Chris Berdik contributed reporting to this article, which was supported by a grant from the Society of Environmental Journalists.

<http://www.newsweek.com/2016/03/18/creation-care-evangelical-christianity-climate-change-434865.html>

March 10, 2016

A Guide to the New Thomas Berry Website: It Will Not Disappoint

By Allysyn Kiplinger
Center for Ecozoic Societies (CES)
[CES Musings -- March-April 2016](#)

The new Thomas Berry website, <http://thomasberry.org/>, will not disappoint, be you a veteran scholar or a new disciple. It is a good tool for understanding Thomas Berry, his contribution, and his influence.

The site has a number of parts and functions: book store, summary of his contribution to our current moment, original source audio-video library, and highlight of others carrying on his Great Work. It is beautiful and easy to read. I encourage you to experience it yourself.

Seemingly designed for a touch-screen hand-held device—with big splashy cosmic introductory photo images on the home page—it also works well on my Windows 8 system with a 32-inch monitor. I especially like the “Next” button in the lower right-hand corner of many pages that keeps me moving in the right direction.

The many Thomas Berry-related hyperlinks scattered here and there will take you to interesting places around the web. These are fun to discover. What it does not have is a good ol’ fashioned table of contents or index, as a book does, to help understand its content and organization. You have to open each page to see the full contents of that page. That seems to be the nature of websites these days and is not necessarily the fault of this particular website. I somehow wish that were not true...but alas.

Besides the homepage, it is organized by four tabs: Biography, Publications & Media, Quotes, and The Foundation. The home page is activated automatically upon arrival or by clicking the “Thomas Berry and the Great Work” button in the top left corner of the site. It features a rotating collection of seven of Thomas’s pithy and well-known statements complete with book and page number for reference. These statements are set against gorgeous NASA photos of Earth and the universe. I feel the home page acts as an overture to Thomas’s work.

The design choice to set Thomas's words over photos of the universe on the home page is perfect: it reiterates and reinforces Thomas's philosophy that the universe must be our starting point. It is our context. It is a simple and profound performative support of his philosophy, ultimately congruent with all his work. It is a brilliant, insightful design choice.

The home page has links to a complete list of his books for sale (Books), an audio library (Audio), a video library (Video), and a collection of his essays (Essays).

The Biography tab leads to a 12-part overview of his life and thought, a brief biography, an impressively long list of his awards, the text of his Memorial Service Program, a list and biography of Berry Award recipients, and a long list of most of his published works.

The Publications and Media tab leads you to 77 sources (as of this writing) for his books, essays, secondary sources, videos, audio recordings, poetry, translations, and lectures. This was the most exciting part of the website for me, since it has original source material—various YouTube videos of Thomas, for example—now collected in one place. This is wonderful. Not necessarily obvious, you'll find the videos about a third of the way down this page/tab with a repeating photo icon of Thomas. The videos are followed by audio archives represented by a different repeating photo icon of Thomas. I would have liked some sort of index for this page, in particular. A lot of the videos were made by the most wonderful Lou Niznik who followed Thomas for years with his home video recorder capturing Thomas on film and tape. It was Lou's Great Work to do this, for which we benefit today. Lou's widow, Jane Blewett, generously donated Lou's videos of Thomas to the Foundation.

The Quotes tab contains quotations from four books: *The Dream of the Earth*, *The Great Work*, *The Universe Story* and *Evening Thoughts*. This collection is a useful resource for creating a ritual, liturgy, sermon, or lecture. It is a great place to "take off" from, as you activate your own Great Work. Artists and teachers could also use the list in an infinite number of ways. It's a great review as well as a starter kit, or a re-kick-start for yourself if you've been away from these books for a while. For example, a friend and I have recently picked up *The Universe Story* to great re-discovery. (Wow, what a great book! I'd forgotten!)

The final tab is called The Foundation. It offers background for the Thomas Berry Foundation that runs this site, along with its many initiatives, associations, and affiliations. I always find this kind of information interesting, to know how things are linked together and who is involved. Here you will find the all-important "Donate via Paypal" link, a link to photos on Flickr, as well as a link to subscribe to the affiliated newsletter from the Forum on Religion and Ecology—an easy to read, straight-forward, and very important monthly newsletter. You must sign up for it.

Peppered throughout the website are lovely photographs of Thomas over the years, some familiar, many new to me. Can you find the one of Thomas with an elephant?

I hope you visit the website and find your own way through it. It is a tremendous resource. Great thanks to the Thomas Berry Foundation for this gift to the world!

March 10, 2016

India: Asian Buddhist and Christian clergy talk ecology and faith

Vatican Radio

An interreligious workshop in the eastern Indian state of Bihar focused on ways religions can work together to create a healthy and peaceful planet.

The Jesuit Conference of Asia-Pacific Region organized the three-day workshop on Buddhist-Christian dialogue, which concluded March 7 in Bodh Gaya, the town linked with Buddha's enlightenment.

"Gone are the days of individual salvation. One can no longer today attain salvation without the community and the entire creation, that is why we need to mend our ways and heal the wounded planet," Jesuit Father Jose Kalapura said at the workshop.

Quoting Pope Francis, the Indian church scholar contended that those who have destroyed the common home must rebuild it.

The workshop, held under the Interreligious Wisdom Sharing Program and organized by the Indian Buddhist Jesuit scholar Lawrence Eucharist, dwelt on the theme — ecology and religion.

Jesuits from Korea, Indonesia, Thailand and Japan and more than 100 Buddhist monks and nuns from the monasteries in Bodh Gaya took part in the event.

Jesuit Father Cyril Veliath, coordinator of the Dialogue Commission of Asia-Pacific Jesuit Conference, said that the Catholic Church teaches that every religion includes elements of truth and "that is why we should reach out to other religions and dialogue so that humanity improves."

Noel Seth, prominent Jesuit scholar on religions, stressed on the need for a multireligious identity.

"One needs to go beyond one's own religion and learn to treat all with respect, which is the only way to reach our destination," he said.

Buddhist monk Kabir Saxena argued that "we have still not discovered nature and the creation."

"We have become self-forgetful, imitative and artificial. The call is to become original and thus restore the true creation," he said.

Father Lawrence Eucharist said that, "in an age of religious violence and exploitation of nature, the enlightened believers should come together to appeal to the world about the essence of religions, which is love, compassion and peace and also jointly care for mother earth."

Father Bernard Senecal, a French-Canadian Jesuit who teaches a course on Buddhism at the Sogang Jesuit University in Seoul, South Korea, considers himself lucky to visit Bodh Gaya because of its importance to the Buddhist religion. "What touched me most was the deep personal sharing by some monks as to how Buddhism has changed their lives," he said.

Father Ingun Joseph, a Korean Jesuit working in Cambodia, shares the same feeling. "This was the sixth such workshop held in various parts of the world, but the first in India. Dialogue of this kind is very enriching and ennobling," Father Joseph said.

http://en.radiovaticana.va/news/2016/03/10/asian_buddhist_and_christian_clergy_talk_ecology_and_faith/1214442

March 10, 2016

Sustainability Central to International Women's Day

Environment News Service

NEW YORK, New York, March 9, 2016 (ENS) – International Women's Day is officially celebrated every year on March 8, but this year, so much is happening that the day has expanded to a week-long series of events throughout the world.

The 2016 theme for International Women's Day is "Planet 50-50 by 2030: Step It Up for Gender Equality."

The United Nations observance on March 8 focused on how to accelerate the 2030 Agenda, building momentum for the effective implementation of the new Sustainable Development Goals, SDG. These 17 goals and their 169 targets balance the three dimensions of sustainable development: economic, social, and environmental.

The UN observance focused on new commitments under the Step It Up initiative undertaken by the internal UN agency, UN Women, and other existing commitments on gender equality, women's empowerment and women's human rights.

Wednesday morning in New York City, film stars with United Nations and New York City officials kicked-off the inaugural HeForShe Arts Week, a new initiative by UN Women to leverage the arts for gender equality.

UN Women Goodwill Ambassador actress Emma Watson, SDG Advocate and UNESCO Goodwill Ambassador actor Forest Whitaker, First Lady of New York City Chirlane McCray,

UN Women Executive Director Phumzile Mlambo-Ngcuka, The Public Theater's Artistic Director Oskar Eustis, among others, took part in the launch.

The HeforShe Arts Week runs from March 8-15, with more than 30 partners throughout the city of New York: ballets, operas, Broadway shows, music concerts, theatres, cinemas, galleries and museums. They are highlighting gender equality and women's rights and donating a percentage of their proceeds to UN Women.

In Washington, DC, First Lady Michelle Obama marked the one-year anniversary of Let Girls Learn, a project that brings together U.S. government agencies to address the challenges preventing adolescent girls from attending and completing school.

Speaking to an audience of girls and women, Obama told of how she first got engaged in the issue of girls' education.

"For me, it was the drumbeat of horrifying stories: Malala Yousafzai shot in the head by terrorists just for speaking the simple truth that girls should go to school. More than 200 Nigerian girls kidnapped from their school dormitory by a terrorist group determined to keep them from getting an education – grown men trying to snuff out the aspirations of young girls. Little girls being brutally assaulted on their way to school, being forced to marry and bear children when they're barely even teenagers. Girls in every corner of the globe facing grave danger simply because they were full and equal human beings worthy of developing their boundless potential."

"It's not just about access to scholarships or transportation or school bathrooms," said Obama. "It's also about attitudes and beliefs – the belief that girls simply aren't worthy of an education; that women should have no role outside the home; that their bodies aren't their own, their minds don't really matter, and their voices simply shouldn't be heard."

Obama spoke of girls' "burning determination" to get an education in the face of this discrimination. "These girls risk everything – the rejection of their communities, the violation of their bodies – everything, just to go to school each day," she said.

From day one, the U.S. government has been leading the way with State, USAID, the Millennium Challenge Corporation, investing hundreds of millions of dollars, Obama said. "They're providing scholarships for girls in Liberia and the Democratic Republic of Congo. They're doing leadership training for girls in Afghanistan. They're building school bathrooms for girls in El Salvador. They're taking on female genital mutilation in Guinea, forced child marriage in Bangladesh."

American Peace Corps volunteers are now running more than 100 girls' education projects in 22 countries.

And through Let Girls Learn, dozens of major companies and organizations have come forward to support this work, said Obama, including Lyft, Jet Blue, Proctor & Gamble, Johnson & Johnson and Starwood Hotels.

In Boston, the non-profit organization Ceres, which advocates for sustainable business practices and solutions to build a healthy global economy, is saluting “the innovative and often painstaking efforts of women working to create systems change in the name of sustainable business, investment, and policy.”

[Ceres honored](#), among others, the new president of the UN climate change process (COP21) and French Minister of the Environment, Energy and the Sea Ségolène Royal, calling her “a climate heavyweight champion whose career has made unimaginable leaps and bounds for climate action.”

In Ecuador, indigenous Amazonian women leaders of seven nationalities and their international allies took action in the Amazon jungle town of Puyo, in a forum and march in defense of the Amazon, Mother Earth and for climate justice.

They gathered to denounce a newly signed oil contract between the Ecuadorian government and Chinese oil corporation Andes Petroleum.

By plane, foot, canoe, and bus, some 500 women mobilized from deep in their rainforest territories and nearby provinces, marching through the streets of Puyo.

Chanting, “Defend the forest, don’t sell it!” and carrying signs reading “No more persecution against women defenders of Mother Earth,” the march culminated in a rally in which each nationality denounced the new oil threat and shared traditional songs and ceremonies.

“Right now the oil company is trying to enter our territory. That is our homeland, this is where we have our chakras (gardens), where we feed our families. We are warriors, and we are not afraid. We will never negotiate,” declared Rosalia Ruiz, a Sapara leader from the community of Torimbo, inside the Block 83 oil concession.

“Although we are from three different provinces, we are one territory and one voice,” said Alicia Cahuiya, a Waorani leader.

As the march unfolded, the Ecuadorian government and Andes Petroleum held a meeting in the nearby town of Shell to organize an illegal entry into Sapara territory, knowing that key leaders would not be present.

Outraged, a delegation of Sapara delivered a letter to the meeting, underscoring their opposition to the oil project and government tactics to divide the community. They successfully thwarted the government and company plans, and returned to the streets, victorious.

International allies including the Women’s Earth and Climate Action Network, Amazon Watch and Pachamama Alliance shared messages of solidarity and calls for immediate action to keep fossil fuels in the ground in the Amazon.

A tribute was held in honor of Berta Cáceres, the Honduran indigenous environmental leader who was killed last week for blocking a dam project in indigenous territory.

The women of the Amazon were joined by Casey Camp Horinek, WECAN delegation member and indigenous leader of the Ponca Nation of Oklahoma, who shared her traditional songs and stories of how her people have been impacted by fracking.

The March 8 forum, action and press conference was followed by a March 9 event, “Women of Ecuadorian Amazon and International Allies Stand For Protection of the Amazon Rainforest” at the library of FLACSO university in Quito.

Belen Paez from Pachamama Alliance declared, “It’s a unique and historical moment to have the experience of solidarity and connection between indigenous women and activists from all over the world standing up for the rights of the Amazon rainforest and its people, we have all been waiting for this moment for so long, and that moment is now.”

In India, the first all-women crew completed their maiden voyage on the Indian Navy sailing vessel Mhadei, traveling from Visakhapatnam to her home port, Goa, after participating in the International Fleet Review.

These women officers are training to form an all-women crew that would attempt to circumnavigate the globe in 2017.

In Nakorn Pathom, Thailand on March 7, UN Women, the Police Cadet Academy, Thailand Institute of Justice and the Embassy of Sweden came together to organize the Youth Dialogue on Gender Equality with Police Cadets.

UN Women has partnered with the Royal Thai Police and the Office of the Attorney General in training police cadets and police investigative officers to protect women, end violence against women and implement the Domestic Violence Law.

Since 2012, UN Women has helped train 555 police officers.

And back in New York, Phumzile Mlambo-Ngcuka of South Africa, UN under-secretary-general and executive director of UN Women, said in her message for International Women’s Day, “Women and girls are critical to finding sustainable solutions to the challenges of poverty, inequality and the recovery of the communities hardest hit by conflicts, disasters and displacements.”

Mlambo-Ngcuka (say mlam-bo hu-ka) is living proof.

A member of the first democratically elected South African Parliament in 1994, she rose to serve as deputy president of South Africa from 2005 to 2008, the first woman to hold that position.

The UN agency she heads today was created in 2010 to direct UN activities on gender equality.

She said, “The participation of women at all levels and the strengthening of the women’s movement has never been so critical, working together with boys and men, to empower nations, build stronger economies and healthier societies.”

That work will be continued during the upcoming 60th Session of the Commission on the Status of Women, the single-largest forum for the advancement of the women's empowerment agenda.

Running from March 14-24, this session is the first to take place within the new 2030 Agenda for Sustainable Development.

The priority theme will be women's empowerment and its link to sustainable development, and the review theme is ending violence against women and girls.

This year over 8,100 NGO representatives have registered for the meeting, and a record 208 events are scheduled. NGOs will organize 450 parallel events in the vicinity of the United Nations Headquarters.

<http://ens-newswire.com/2016/03/10/sustainability-central-to-international-womens-day/>

March 11, 2016

A Humanist and a Theologian Reimagine Nature

Professors Jedidiah Purdy and Norman Wirzba begin an ecological conversation they believe we all should have

By Andrew Park
Duke Magazine

On an overcast morning in December, Jedediah Purdy pulls his gray Subaru hatchback into a small gravel parking lot at the base of [Occoneechee Mountain](#), a high bluff about fifteen minutes from Duke's campus. Purdy, Robinson O. Everett Professor of law, is running a few minutes late and hops out of the driver's seat carrying only a glass jar of water. The label reads "NOT FOR HUMAN CONSUMPTION"—it had originally held the unpasteurized "raw" milk favored by people who believe in getting closer to the sources of their food.

Purdy is one such person. His earnest manner and intellectual interests seem tailor-made for these farm-to-table times, but in fact, the times have simply caught up to him. It has been seventeen years since he burst onto the intellectual scene with *For Common Things*, a book urging Americans to give up the irony and apathy of contemporary culture in favor of authentic community. Just twenty-four at the time, he would follow that with two well-received books on American political identity. His latest, *After Nature: A Politics for the Anthropocene*, traces the political, cultural, and legal history of Americans' environmental imagination and has been called "the Silent Spring of the twenty-first century."

Waiting for him at the trailhead is another Duke scholar whose personal and intellectual pursuits converge in the outdoors: Norman Wirzba, professor of theology, ecology, and agrarian studies in the divinity school, teaches and writes about the connections among faith, food, and the environment. Like Purdy, he's prolific. He has published six books, including two in the past six

months, *Way of Love: Recovering the Heart of Christianity* and *From Nature to Creation: A Christian Vision for Understanding and Loving Our World*. The latter also argues for a new “environmental imagination.” But Wirzba’s approach is rooted in theology. He sees the Earth not as a way station that Christians eventually will leave behind, but as “the good and beautiful world that God made, the object of God’s daily concern and delight.” The book counsels Christians to pay closer attention to the ways in which people are destroying the world and themselves, and to bring a religious perspective to the environmental movement.

Purdy and Wirzba have never taught or written together—or hiked together, for that matter—but their common interests frequently overlap. This year they will join colleagues from the law school, divinity school, and Nicholas Institute for Environmental Policy Solutions to study “Religious Faith, Environmental Concern, and Public Policy” through an Intellectual Community Planning Grant from the provost’s office.

As they set off on a trail carpeted with damp leaves, their talk turns quickly to the immediate surroundings and the secret intelligence of plants and forests. It’s a language about which both men are curious, even if their areas of scholarship are miles apart. “There’s a conversation going on, a conversation conducted in the language of chemicals rather than words,” Wirzba says. “The connections between things are deep and profound.”

If the idea of a conversation between a couple of ferns seems fanciful, Purdy and Wirzba probably wouldn’t disagree. That’s the point, in fact. Both writers argue that the concept of imagination is crucial to our relationship to the environment, perhaps now more than ever. Scientific evidence—rising sea levels and real-time melting of glaciers, for instance—hasn’t inspired people to act with urgency or even to find consensus on the policies these realities demand.

“It’s pretty clear that data is not enough,” says Wirzba. “We’ve got so much data. More than we have ever had, more than we know what to do with. But it seems not to be doing the job we need it to do, which is to promote communities and habitats with healing and peace. That’s why imagination is so important. Because imagination is the capacity of people to move into positions of empathy and appreciation of things.”

By placing environmental concerns in a spiritual context, Wirzba invites Christians to embrace a vision of protecting the environment through how they live, eat, and work. Likewise, his premise asks secular environmentalists to open their minds to a vision of ecology that is “grounded in an appreciation of the sacred character of creatures,” he says.

Both men agree there’s a huge opportunity, some might call it an imperative, to bring new voices into the conversation about conservation and sustainability. But how?

“Goethe, who was writing in reaction to Enlightenment tendencies to separate the knower from the known, would say if you want to understand the plant, you can’t just take measurements,” says Wirzba. “You actually have to spend a good bit of time attending to the plant. When you do that, you start to see the thing as a living thing and not just an object. And once you see it as a

living thing, then there's the possibility for kinds of empathy that maybe wouldn't be there otherwise."

It's what Thoreau did in Walden, adds Purdy. "There's this amazing passage where he says, 'I could almost turn to the pond and ask, Walden, is it you?' Which is like this primordial act of looking in the eye of another, only of course, it's a different kind of eye. It's the pond. It's an eye of the world."

Purdy and Wirzba, who stray from the trail to sit atop a pair of small boulders jutting out of the hill, are rigorous observers. "[Thoreau] said that if he woke up in a swamp from a trance that he would know within three days what time of year it was," says Purdy, eyeing the landscape before him. "He would know the date within three days, because of what was happening around him."

While Purdy talks, he spots a bird in the sky above them. "It's a turkey buzzard," he says. "It's curious about what we're doing." He and Wirzba both are troubled by the degree to which people see themselves as separate from the environment, distinct from the living things that share the Earth with us.

"As long as we talk about nature as an abstraction, I think we're not going to get very far," says Wirzba.

In the woods we're reminded of our primordial, or at least pre-digital, selves. "People are sensing that there's a kind of artificiality which deadens their life," says Wirzba. "Or slowly degrades the sense that they are living beings."

There's a simple antidote on campus, a place that has drawn the involvement of both men: the [Duke Campus Farm](#), a one-acre plot of land on which students grow fruits and vegetables for dining halls and local events. The purpose isn't to feed the campus, of course, but rather to inculcate in the university community an appreciation for and understanding of healthy, sustainable agriculture.

Both Wirzba and Purdy grew up on farms. Raised by back-to-the-land parents on a small farm in West Virginia, Purdy spent his youth exploring trees and gullies. At ten or eleven, he took a microcassette recorder and grilled his neighbors for details about the natural mysteries in their midst. "Most people don't know what you can find in the woods," he says.

Wirzba grew up on a larger farm in Alberta, Canada, and planned on becoming a farmer until industrialized agriculture forever altered his family's business. Instead, he pursued degrees in history, religion, and philosophy. "I was on a farm in which there was a conflict that was being played out for me to experience, front-row seat," he says of the period in which his grandfather's traditional farming practices were overtaken by industrial methods. "It was small-scale agriculture. The emphasis on the care of every living thing was just paramount. The push from the bankers, however, was that you become industrial. It was a degrading form of doing agriculture."

This conflict is ever present in the writings of Wendell Berry, the poet and novelist known for his environmentalism, who is a touchstone for both men. Purdy describes him as the first writer he ever met. Wirzba, editor of *The Art of the Commonplace: The Agrarian Essays of Wendell Berry*, counts Berry as a friend and professional collaborator.

Berry's writing inspired Purdy's parents to set up their homestead. They grew much of their own food, hunted their meat, and logged oak out of the woods for outbuildings on the property. "They were really trying to bring—it's an age of Berry's—the lines of their interdependence as close as possible so they could actually know where everything was coming from and where everything was going," he says.

Not one to romanticize harsh realities, Purdy is quick to point out that the landscape that so shaped him was itself "really a wrecked place." Depopulated when white settlers arrived, and subsequently cleared and farmed in destructive ways. "The creeks are kind of sluggish, and the hills are pretty bare, and the trees kind of tip over. There are a lot of gullies." And yet, he says, "it is my image of what it means for a place to be beautiful. It was just a place that had taken the boot so many times, and yet, it's the place where I learned how to be in a place at all."

Wirzba considers this, and says, "What's interesting is that by committing to a place, your parents could take the time to learn the history of the place, to see the wounds. [Aldo] Leopold has this great line where he says, 'The punishment or penalty of being an ecologist is that what everybody sees as a pretty landscape, you see as a place of wounds.' "

Purdy knows the exact reference and, without missing a beat, offers a slight correction: "The consequence of an ecological education is that you live alone in a world of wounds."

"Yeah, yeah," says Wirzba before returning to his point. "This is something which our screen culture doesn't appreciate. Planet Earth and Winged Migration, they're fabulous to look at, but they give you a sense that the world is a place where you come as a spectator to look. And hopefully it's pretty. All the places of work are the places of wounds; those become forgotten and, as a result, we have a romantic vision of the world around us. It's not realistic, it's not honest, and it prevents us from doing the hard work of healing and repair."

It's not as easy to love the wounded places, but it's unavoidable.

"We have no choice," Purdy says. "No good choice."

Wirzba nods. "We don't have any other places to go, right?"

As they make their way along the two-mile trail, the surroundings come into view. Wirzba, who lives nearby and runs this hill with his sons, points out the the historic town of Hillsborough, the subdivisions of three- and four-acre homes that abut it, and, further out, the farmland that remains, albeit bisected by two interstate highways. It's an area with which Purdy, who lives in Durham, is less familiar.

For all their similarities, he and Wirzba make their scholarly homes in two different worlds. Wirzba grew up in an Anabaptist church, and a major part of his work today is with pastors and churches.

“Faith communities have, within their own traditions, tremendous resources for talking about the world in ways that can promote health, repair, flourishing,” Wirzba says. “A large part of the work I do, when I write theologically, is to try to engage parts of Christian traditions that can be useful in the work of environmental restoration.”

Purdy interjects with a mischievous smile. “I always realize, at some point when Norman and I are talking face-to-face, that there is this deep difference,” he says. “That he’s a monotheist. I’m not even a theist.”

Nonetheless, he notes, “we come to many of the same places and are interested in many kinds of the same work and are going to say many of the same things, even when we turn in different directions, to different and overlapping populations.”

Purdy’s writing is aimed at those who may be despondent over the Earth’s ongoing destruction at the hands of humans. In *After Nature* he posits a vision for future political action that acknowledges that human life has now shaped every inch of the planet.

“It’s not just the fact that our fingerprints are on everything. And that, as a factual matter going forward, the world that we get to live in is going to be the world that we’ve, in significant part, made,” says Purdy. “But also, that talking about nature has been a way for people to talk to one another about how they were going to relate to the rest of the living world [and] how they were going to relate to one another.”

All the more reason, says Wirzba, to “recover the language of creation. I’m not saying we dispense with the word ‘nature’ altogether. What I want to dispense with is the idea that there’s something natural about the term ‘nature.’ ” Its true meaning, both men agree, has been degraded by whims of self-interest and the sharp turns of history.

Purdy argues that politics is the only solution to our environmental challenges, even as he acknowledges that politics right now is pretty ugly. Wirzba’s challenge is similarly daunting: He wants to revive the idea of Creation but admits that Christians are far from living out a scriptural vision in their relationship with the world.

“I’m not optimistic,” admits Purdy. “I think we are in a threefold crisis of ecology, economy, and politics, and that they are mutually interactive. Politics is the inescapable pivot point because it’s the only way of deliberately, collectively binding ourselves to a direction.”

But, he adds that he’s hopeful in general, because history is genuinely full of surprises. “People have pulled off transformations that were thought to be impossible before they happened, and which they emerged from as different kinds of people.”

Wirzba dismisses the language of optimism and pessimism as beside the point. “Christians might say that our hope is not simply in ourselves but in the power of [the Holy] Spirit, which is an active player in the creation of the world,” he says. “The spirit is a healing, beautifying presence in the world. It can take root in all sorts of surprising ways.”

We should prepare for the surprise, Wirzba adds. Embrace it. Promote it. “Because it’s going to take the creative powers of everybody to imagine a better world.”

The two men are back at Purdy’s Subaru at the base of the hill, but still in the thick of conversation. “Hope is not fanciful, because people are doing it,” continues Wirzba. “Or as Christians would say, ‘The Spirit’s at work.’ Right?”

“Amen,” says Purdy, the mischievous smile having returned.

Wirzba laughs and claps Purdy on the back: “All right. We got an amen.”

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<http://dukemagazine.duke.edu/article/a-humanist-and-a-theologian-reimagine-nature>

March 14, 2016

From the pope to the people: Emerging religious environmental movement faces challenges amid global economic pressures

By Dan Smyer Yü and Mary Evelyn Tucker
Association of Religion Data Archives (ARDA)

The one bus to the village of Sambha in northeastern Qinghai Province in China leaves in the late afternoon. The setting sun serves as a backdrop as the county bus turns off the provincial highway, and winds along a narrow road between mountainous cliffs and the bluish waters of the Machu River.

Nearing the village, the driver honks his horn a few times to warn approaching travelers, and makes one final sharp 90-degree turn allowing travelers to see the entirety of Sambha, an awe-inspiring panorama of wheat fields and diverse flora and fauna embraced by large mountains and flowing water.

The setting created by geological forces, and cared for by centuries of human beings living in cultural and spiritual communion with the land, evokes the images of the myths of Arcadia and the Shire of the Lord of the Rings, in which self-sustainability, abundance and harmony are the essence of their eco-systems.

Just one element is missing: Young adults.

Many villagers from 18 to 45 have left to become construction workers or migrant laborers digging up wild mushrooms and tonic herbs for consumers outside the traditional Tibetan land.

And therein lies one of the greatest challenges of the modern environmental movement: The need to create a sense of urgency about the short- and long-term environmental dangers confronting the planet in the face of a global financial downturn that creates even more pressure to place a priority on economic development.

The economic miracle that has made China a financial superpower and lifted tens of millions of people out of poverty has also created such ecological havoc that many of those who can afford it are fleeing cities like Beijing, and in some cases even China itself, for healthier landscapes.

What it has not done is shaken faith in the mainstream belief in Chinese society in the primacy of economic growth as the path to happiness.

So, too, is there pressure elsewhere throughout the developing and developed world to make economic growth a priority over environmental stewardship.

Nine out of 10 respondents to the 2010 World Values survey said it is important to care for the environment. But when people were asked to identify [the most serious problem facing the world](#), 56 percent said people living in poverty and need; just 14 percent said environmental pollution.

Religious groups, with their longstanding commitments to both the divine nature of creation and human development, are uniquely positioned to help seek ways to develop public policies that balance economic needs with the protection of the planet.

And if they have been somewhat late to the modern environmental movement, religious leaders such as the Dalai Lama and Pope Francis, with his landmark encyclical calling on the world to engage [in a new dialogue about how we are shaping the future of our planet](#), are making an impact.

In the end, there may be two key questions facing global religious communities as they seek to respond to a growing environmental crisis:

Do they have the will, and are people ready to listen?

Power of religion

Nearly every religion, from Daoism, Buddhism and Hinduism to Islam, Judaism and Christianity, has a reverence for creation.

The common values that most of the world's religions hold in relation to the natural world might be summarized as reverence, respect, restraint, redistribution, responsibility and renewal. The

values were identified by international participants at a series of 10 conferences on global religion and ecology at Harvard University.

Yet there are clearly variations of interpretation within and between religions regarding these principles.

In Christianity and Judaism, for example, the scriptural passage in Genesis that human beings should have dominion over “[every creeping thing that creepeth upon the earth](#)” is viewed by religious environmentalists as meaning people have a duty to be stewards of the Earth, and not to take it as a blank check for human primacy over nature.

Religious communities also have their own external and internal conflicts over environmental politics, and the complex ethical questions involved in developing policies that promote ecological sustainability and reduce human suffering.

What is emerging, however, are signs of a global religious environmental movement that is broad-based, and committed to bringing its moral authority to bear on issues such as global warming, climate justice and sustainable development.

Consider these developments:

- Global faith leaders such as the Dalai Lama; the Greek Orthodox Patriarch Bartholomew; and Rowan Williams, the former Archbishop of Canterbury, have all spoken on behalf of the environment.
- Pope Francis’ encyclical *Laudato Si* released last spring will have a lasting impact in insuring that the moral dimension of “climate justice” will be part of environmental discussions.
- Religious leaders and groups were well represented among representatives from 195 countries at the United Nations conference on climate change in Paris in December. Just as people of faith were visible in the People’s Climate March in Sept 2014 in New York.
- In the U.S. alone, [more than 70 religious environmental movement organizations have been founded since 1997](#).
- Buddhist social activists and teachers such as [Sulak Sivaraksa](#) of Thailand and Khnepos Sodargye and Khnepo Tsultrim Lodro in the Tibetan regions of China have organized environmentally-engaged community programs throughout Southeast Asia.

There is a long way to go, however.

If we just examine our modern lifestyles and their demands on the Earth’s resources, it is not too difficult to see that the 21st century continues the Industrial Revolution-era practice of the unlimited extraction of these limited resources.

While significant, the environmental statements offered by religious organizations and leaders have not often translated to action on the ground.

And each religious group in its own country faces particular challenges from the powerful social, cultural, political and economic forces promoting unfettered development.

The Chinese example offers an illustrative case study.

Ecological civilization

Atheism remains official state ideology in China, but the government gave up its efforts to eradicate religion in the period of reform following the Cultural Revolution in the 1960s and 1970s.

A constitutional provision for religious freedom in 1982 permitted temples, mosques and churches to reopen under state supervision. Five religions are officially recognized by the state: Daoism, Buddhism, Islam, Chinese Patriotic Catholic Association, and the Three-Self Patriotic Movement (Protestant).

The [pent-up demand for spiritual expression outside the state has led to stunning growth](#) for many groups. The [2007 Chinese Spiritual Life Survey](#) found that 85 percent of the population had some form of religious belief and practice, with many practicing some forms of folk religion.

About 18 percent identified as Buddhists. From 1950 to 2010, the estimated number of Christians in China increased from 4 million to 67 million. By 2030, China is projected to have [some 225 million Protestant Christians alone](#).

But belonging to a religious group still can be costly in terms of educational, economic and political opportunities. Even greater penalties are faced by believers in groups not sanctioned by the state, such as Catholics who remain loyal to the international Catholic Church over the Chinese Patriotic Catholic Association.

Christians, overall, face obstacles in entering public policy debates due to lingering cultural attitudes associating them with Western colonialism. For their part, many Christian groups are still focused on the practicalities of building places of worship to serve a growing population amid the state's restrictive regulations.

Running an underground church does not leave much time for environmental discourse.

Buddhists and Daoists have more freedom as they are seen as a part of China's cultural history. But they, too, are limited in challenging the state's growth-driven economic policy and the rising consumerism, and the fact that Buddhists are institutionally less organized hinders their attempt to promote social causes. The attention in the nation's media to sexual and financial scandals of some monks also undermines Buddhists' credibility for making social changes.

Tibetan Buddhists, however, have been more active in promoting environmental action in China, setting up environmental organizations such as Nynambu Yultse Ecological Preservation Association and Snowland Great Rivers Environmental Protection Association. Quite a few Tibetan lamas travel in China advocating the oneness of humankind with other species and the Earth itself.

In addition, while many people in China do not view Confucianism [as a religion](#), it exerts a pervasive influence as a cultural tradition holding key values that shape attitudes toward nature. The environmental dialogue in China is drawing on many ideas from Confucianism in conferences, books, and public meetings.

What gives hope that these seeds will fall on fertile ground is the rising popular dissatisfaction with environmental problems that reach into everyday lives with suffocating smog, respiratory illnesses and the destruction of natural landscapes.

More than four in five Chinese adults said [air pollution is a very big or moderately big problem](#), the 2013 Global Attitudes Project found.

The government has taken notice. Chinese President Xi Jinping has said addressing pollution is a priority. The 2012 National Congress of the Communist Party of China made building “[ecological civilization](#)” part of the overall development plan.

The term ecological civilization is vague, and open to diverse interpretations in the public arena. This makes it possible for religious groups to be part of a coalition addressing China’s environmental issues.

The larger challenge in a state still committed to continuing economic growth that has lifted tens of millions of people out of poverty is framing the conversation in a way that integrates sustainable development with the short- and long-term environmental health of Chinese society.

So in addition to scriptural or doctrinal arguments, religious environmentalists also are finding it effective to speak about traditional ecological knowledge and focus on models such as Sambha in Western China where a reverential harmony between the land has existed for more than a millennium.

Moving forward also will take humility on all sides.

Religious groups have to be careful to work in broad interfaith coalitions, and not be seen as promoting their religions or posing a threat to the state.

State officials and other key public policy leaders, many of whom have been conditioned to associate religion with superstition, need to be open to viewing religious groups as key repositories of values and trusted motivators in conveying a moral vision of the necessity of caring for the Earth.

No one is going to build a base for sweeping environmental change on their own.

Hopeful signs

The tipping point of environmental awareness that can lead to action is not just present in China.

Around the world, issues such as global warming and climate justice are becoming public priorities.

Forty-seven percent of respondents to the 2010 World Values survey said [protecting the environment should be given priority over economic growth](#), even if it causes some loss of jobs. Just 43 percent said economic growth and creating jobs should be a higher priority.

The Comparative Values Survey of Islamic Countries found similar support for environmental care relative to economic growth.

Although religions have been slow to respond and do not immediately spring to mind as catalysts for environmental action, their moral authority and institutional power gives them the ability to help effect a change in attitudes, practices, and public policies in respect to sustainability.

It is a capacity they have demonstrated in many major social movements.

For example, while the Industrial Revolution from the beginning of the 18th century has run roughshod over the environment, religious groups have played key roles in addressing its excesses.

Religious groups have been at the forefront of successful campaigns to abolish slavery, institute child labor laws and other protections for workers and in advocating for economic justice in areas from living wages to an end to workplace discrimination.

As the pope made clear in his landmark encyclical, the ethical challenges of climate change go beyond environmental damage to encompass larger issues of injustice such as the inequitable treatment of the poor and those most affected by climate change.

But, as in China, their involvement in environmental issues must be undertaken with humility. The size and complexity of the environmental problems facing the world require collaborative efforts both among global religions, and in dialogue with other key domains of human endeavor, such as science, economics, and public policy.

“We need a conversation which includes everyone, since the environmental challenge we are undergoing, and its human roots, concern and affect us all,” the pope declared.

And, as is the case in China, one source of hope that it is not too late to address the environmental crisis lies in the many living examples of nature that can evoke awe and wonder.

Places like Gang Rinpoche (Precious Snow Mountain) in western Tibet, the five sacred Buddhist mountains in China, Machu Picchu in Peru and Uluru in central Australia speak to both ancients and moderns as sacred sites of sublime integrity, reminding the world what is possible when humanity seeks to be in spiritual harmony with nature.

A religious-based approach to caring for the Earth is not a case of pitting concern for the environment against economic development, say Pope Francis and many other religious voices.

It is rather a case of speaking out against “a false or superficial ecology” that would dismiss the damage being done to the Earth to justify unfettered development that is unbalanced, unequal and exploitative.

“Today,” Pope Francis said in his 2015 encyclical that is now part of the canon of social teaching of the 1.3 billion-member Catholic Church, “we have to realize that a true ecological approach always becomes a social approach; it must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor.”

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Resources:

[Association of Religion Data Archives](#): Search for terms such as the environment, climate change and global warming to find data on environmental attitudes from among several hundred leading surveys, along with references to scholarly articles and books on religion and ecology.

[ARDA National Profiles](#): View religious, demographic, and socio-economic information for all nations with populations of more than 2 million.

[The Forum on Religion and Ecology at Yale](#): The forum is the largest international multi-religious project of its kind. The website offers an array of excellent resources, including an [overview of world religions and ecology](#), many key [official statements on religion and ecology](#), [bibliographies](#) of published works on global religious communities and the environment and news [articles](#) on religion and ecology.

Other Major Organizations: Leading groups on religion and ecology include [The Alliance of Religions and Conservation](#), [The Interfaith Center for Sustainable Development](#), and [Green Muslims](#).

[ReligionandNature.com](#): The site features the work and projects of an international and interdisciplinary community of scholars investigating the nexus of religion, nature and culture. It is also the host site for the [International Society for the Study of Religion, Nature & Culture](#).

Articles:

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Lee, Chengpang, and Han, Ling, [Recycling Bodhisattva: The Tzu-Chi movement's response to global climate change](#). This article traces the emergence of climate change discourse and its related practices in one of the largest and globally most influential Taiwanese Buddhist organizations – Tzu-Chi (Buddhist Compassion Relief Tzu-Chi Association).

Juan Li, Dajun Wang, Hang Yin, Duojie Zhaxi, Zhala Jiagong, George Schaller, Charudutt Mishra, Thomas McCarthy, Hao Wang, Lan Wu, Lingyun Xiao, Lamao Basang, Yuguang Zhang, Yunyun Zhou and Zhi Lu, [Role of Tibetan Buddhist Monasteries in Snow Leopard Conservation](#). Researchers investigated the role of Tibetan Buddhist monasteries in snow leopard conservation in the Sanjiangyuan region in China's Qinghai Province on the Tibetan Plateau.

Jifang, Lou, [Green development to play key role in supply-side reforms](#). Chinese President Xi Jinping stresses that development must prioritize ecology for China's long-term benefits.

Books:

Grim, John, and Tucker, Mary Evelyn, [Ecology and Religion](#). This primer explores the history of religious traditions and the environment, and the emergence of religious ecology. Ultimately, Grim and Tucker argue that the engagement of religious communities is necessary if humanity is to sustain itself and the planet.

Eds: Miller, James, Smyer Yü, Dan, and van der Veer, Peter, [Religion and Ecological Sustainability in China](#). The book illuminates the diversity of narratives and worldviews that inform contemporary Chinese understandings of and engagements with nature and environment.

Smyer Yü, Dan, [Mindscaping the Landscape of Tibet: Place, Memorability, Ecoaesthetics](#). This book evaluates divergent perceptions of eco-religious practices, collective memories, and earth-inspired emotions in Tibet with emphasis on the potency of landscape. It is written for readers interested in the religious, cultural, and ecological aspects of Tibet.

Ed: Taylor, Bron, [Encyclopedia of Religion and Nature](#). The encyclopedia explores the relationships among human beings, their environments, and the religious dimensions of life. This wide-ranging work includes 1,000 entries from 520 international contributors

Eds: Tucker, Mary Evelyn, and Grim, John, [Religions of the World and Ecology](#). This series of volumes arose from a 10-part conference series at Harvard University that involved the direct participation and collaboration of more than 800 scholars, religious leaders, and environmental specialists around the world.

[Ecological Civilization](#). The book is a compendium of the talks and proceedings of the International Conference on Ecological Environment this past June in Beijing. Scholars, journalists, scientists, government, religious and business leaders, from China, the U.S., and

other countries addressed the environmental challenges facing China and the world—and the role of religion and traditional cultures in finding sustainable solutions

<http://globalplus.thearda.com/globalplus-religion-and-the-environment/>

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Women on the Front Lines Fighting Fracking in the Bakken Oil Shale Formations

In the rolling plains of North Dakota, companies like Halliburton, Hess, Crestwood Energy, Whiting Petroleum Corp. and Enbridge have crowned themselves king and are acting with a level of impunity beyond measure.

By Emily Arasim and Osprey Orielle Lake
Common Dreams

There are some crystalline moments in which the challenges we face as a civilization become brutally clear. Moments in which corrupt aspects of American democracy and the fractures in our social, economic and political systems are exposed with unsurpassed clarity.

Moments in which we are reminded of how fundamentally ruptured our dominant culture's relationship with the Earth has become and in which we see before our eyes how this split has led to almost unfathomable acts of violence against the Earth, against women and against the original inhabitants of North America.

Standing on the sweeping, golden prairie of North Dakota with the noxious flames of the [Bakken fracking fields](#) visible in all directions, one such moment descended with heavy weight.

Rape of the Land, Rape of the Women

“The Bakken” is a shale formation that spans some 25,000 square miles and covers much of western North Dakota, eastern Montana and the southern parts of two Canadian provinces. Since the early 2000's, a boom in oil extraction has taken place in the region thanks to newly available hydraulic [fracking](#) technologies used to extract sticky, heavy oil from deep within shale rock. In less than a decade, North Dakota has become a [fracking epicenter](#) and the second largest U.S oil-producer after Texas.

For millennia before becoming the center of the fracking industry, northwest North Dakota served primarily as rich agricultural grounds and as the home of the Three Affiliated Tribes of the Mandan, Hidatsa and Arikara peoples.

For the Three Affiliated Tribes, the social and environmental destruction wrought by the fracking industry is but the latest wave of historic oppression and colonization. In 1947, the Mandan, Hidatsa and Arikara were forcibly moved from their traditional lands to make room for the construction and flooding of Lake Sakakawea on the Missouri River.

Of the 12 million acres promised to the Three Affiliated Tribes by an 1851 treaty, less than [1 million acres](#) have been delivered in the form of the Fort Berthold Reservation and now these remaining acres are being eaten away by destructive development, cultural dislocation and irremediable ecologic damage cause by the fracking industry.

Williston, a mid-sized town just outside of Fort Berthold Reservation, has officially adopted the new town slogan “Boomtown, USA” and has been taken over by the industry to the point that it is almost unrecognizable to residents, both Indigenous and non-Indigenous, whose families have lived there for generations.

The population of Williston has doubled , maybe even [quadrupled](#) since 2010, however exact numbers are too hard to track due to the transient flow of labor and utter inability of local government to keep up.

Law enforcement and social services have been stretched far past their limits, leaving many, especially Indigenous women and girls, exposed, vulnerable and without proper legal protection.

While there are some families and women moving to the area to partake in work on the fracking fields and sprawling hotels and strip malls that have popped up to service the workers, the majority of the tens of thousands of new residents are men. In recent years the demographic has changed to the point that there are now more men [concentrated](#) in North Dakota than anywhere else in the U.S outside of Alaska.

Workers are housed in ever-expanding mobile home complexes called “[man-camps](#),” ranging from unregulated trailers in farmers’ fields to sprawling complexes housing and feeding more than 1,000 workers at a time.

Conditions for fracking workers are cramped and have proven to be breeding grounds for violence, drug use and sexual abuse. The population influx and housing demands had driven up rents to exorbitant rates rivaling New York City and San Francisco, squeezing out long-term residents and putting many at risk of homelessness.

According to the state’s Uniform Crime Reports, violent crime, including murder, aggravated assault, rape and robbery [increased by 125 percent](#) between 2005 and 2013.

In September 2013, the U.S. Department of Health and Human Services identified two small towns in the Bakken alongside four major cities (Boston, Houston, Atlanta and Oakland), as the places in the U.S most in need of assistance to combat rampant [sex](#) and [human trafficking](#).

In North Dakota, as in many places across the world, violence against women intersects with and is multiplied by deep racism and a legacy of exploitation, systemic violence and genocide of Indigenous peoples.

According to U.S Department of Justice records, [one in three](#) Native American women are raped in their lifetimes, a figure that is two-and-a-half times greater than the average for all U.S. women.

In an astounding [86 percent](#) of cases of rape of Indigenous women and girls, the assailant is non-Native, which has proven to be a fatal catch-22 allowing many crimes to go uninvestigated by either U.S or Tribal officials.

Williston's rape rate is now nearly [four times](#) the national average and in 2014, shelter workers reported a more than four-fold increase in [domestic violence](#) cases.

From the biggest industry supporter to the staunchest critic, everyone in the North Dakota Bakken is quick to admit that the region feels like an uncontrolled, "wild west." This violent lawlessness bears down upon Indigenous women and girls with unmatched brutality.

In April of 2015, a coalition of Indigenous and women right's organizations, led by Honor the Earth, filed a request with the United Nations Expert Mechanism on the Rights of Indigenous Peoples, demanding a [UN intervention](#) in the epidemic of sexual violence brought on by extreme fossil fuel extraction in Bakken fracking fields and the Alberta, Canada [tar sands](#) region.

While violence against Indigenous and other local women in the region continues to be pushed under the cover, the very visible rape of the Earth happening across North Dakota is harder to ignore.

The North Dakota Industrial Commission cites nearly [2,000](#) spills, leaks, ruptures, fires and blowouts over the past 12 months and the Associated Press recently uncovered at least [750](#) "oilfields incidences" hidden from the public since January 2012. More than [75 tons](#) of oil waste is generated in the state every day, one third of which is highly [radioactive](#).

Radioactive "[frack socks](#)," used to filter solids from toxic fracking water, are produced by the hundreds of thousands every day. Waste disposal sites in North Dakota are not allowed to accept these radioactive materials, the result being that thousands of filters are being illegally dumped by industry workers, most notably on back roads, dumpsters and playgrounds of the Fort Berthold reservation.

While fracking is happening across the U.S, there are a several elements of the North Dakota industry that set it above the rest when it comes to devastation of the land and the health of local communities.

The massive worker influx and targeting of Indigenous communities are two such factors—flaring or the burning off of the natural gas extracted during the fracking process, is another.

Across the U.S, an average of just 1 percent of gas is flared, while the rest is captured and used as productive energy. In North Dakota, upwards of [26 percent](#) is burned off, creating an additional source of volatile pollution and waste and serving as a testament to the industries flagrant disregard for the health of people and Earth in North Dakota.

Carbon dioxide, [methane](#) and many other hydrocarbons and carcinogens have been identified in samples, however companies are not required to disclose the exact chemical composition of the flared gases, which compromise local air quality, have been linked to cancer, asthma and

respiratory disease, and astonishingly, can be seen [glowing](#) from [space](#) in the previously dim, sparsely populated North Dakota plains.

Flares are highly toxic when lit, but even more devastating when the flames go out and gases pour out unseen, creating gas plumes over local communities for hours, days or weeks.

The global warming inducing methane and carbon dioxide released by flaring is a double threat not just for North Dakota, but for worldwide efforts to curb run away [climate change](#).

Fracking is a violent assault on all of Earth's vital systems, but most immediate and pronounced on the water cycle.

The process drills some 2,000 to 10,000 feet deep, often passing through and contaminating vital aquifers. For each frack well, [1 to 8 million gallons](#) of fresh water is mixed with undisclosed chemical “fracking fluids” and forcefully injected into the ground to break the rock and release the gas and oil.

Despite corporate secrecy, it has been established that more than [600 chemicals](#) and volatile organic compounds (VOCs) such as [benzene](#), toluene, ethylbenzene and xylene, are common components of the water/chemical concoction. Many of the chemicals used by the fracking industry have been [exempted](#) from the Safe Drinking Water Act, the Clean Air Act and other environmental laws, despite the fact that they are being directly injected into the Earth and drinking water sources.

Elementary school science, which taught us that the water cycle is a closed loop—that no water is ever gained or lost—is no longer an ultimate truth, as water used in the fracking process is contaminated with oil and hydrocarbons, radioactive materials, carcinogens and biocides to the point of no return.

At a time of global water crisis, the fossil fuel industry is permanently destroying billions of gallons of pure water in a race to dig up non-renewable resources. The imperative of action to [keep fossil fuels in the ground](#) could not be clearer.

Women Speak from the Frontlines

In September of 2015, a delegation from the [Women's Earth and Climate Action Network](#) traveled to Williston, North Dakota to take part in the Fifth Annual [Stop Extreme Energy Conference](#), support advocacy efforts and bear witness to the conditions being experienced in and around the community of longtime Indigenous, women's and climate justice activist, Kandi Mossett.

Mossett, native energy and climate campaign organizer with the [Indigenous Environmental Network](#), was born and raised in New Town, a once small, close-knit community just inside the borders of Fort Berthold Reservation.

Mossett led a diverse group of educators and activists on a “toxic tour” of the region around New Town, Williston and Fort Berthold, visiting contaminated sites and passing seemingly endless open flares, oil derricks and drills, processing sites, train depots,”“man camps” and supporting infrastructure from hotels and truck stops, to strip clubs and liquor stores.

The phrase “[national sacrifice zone](#)” came to the lips of many of the witnesses, struggling to describe the dangerous deregulation, debasement of corporate profit and callous disregard for the health and safety of local communities, and the soil, water, air and lives of future generations.

Driving just outside of Watford City, the group passed an elementary school and playground. Mere meters away from the school on the other side of the road, Mossett pointed out a torn up road and a newly constructed building, to serve as a radioactive storage facility for the fracking industry. According to Mossett, the permits for the building had been officially issued just weeks previously, however construction had been started many months before.

This is only one of many incidences involving direct threats to local children and their right to life. In the town of Mandaree toddlers were found playing with radioactive “frack-sock” filters dumped in a field, prompting residents to immediately begin campaigning and plastering nearby towns with flyers identifying the danger and making sure parents and children knew to stay away and immediately report dumping of radioactive waste.

With tears and heart-wrenching grief, Mossett also recounted the story of a young girl, less than five years old, found running, naked, away from a man-camp after having been sexually violated by a worker.

In the windswept, rolling plains of North Dakota, companies like Halliburton, Hess, Crestwood Energy, Whiting Petroleum Corp. and Enbridge, to name but a few, have crowned themselves king and are acting with a level of impunity beyond measure.

They are using the complex overlay of sovereign tribal, federal and state jurisdictions, as well as questionable webs of subcontractors, to evade responsibility for atrocious social and ecologic damages—however their air of confidence and inevitability is more and more in-question everyday.

There is a saying of the Global South that speaks to the change that must now come to the Bakken oil fields: Neither the land nor women are territories of conquest.

Hope Amidst Devastation

There are many compelling reasons for hope.

For one, the profitability of the industry is plummeting. In the first weeks of 2016, Flint Hills Resources LLC, the refining arm of the [Koch](#)’s brothers industries, offered to pay just [\\$1.50](#) per barrel of North Dakota crude, down from \$13.50 one year ago and \$47.60 in January of 2014.

The same collapse is happening just north in the Canadian tar sands and investors are fleeing rather than risk [stranded assets](#).

While the growing financial instability and risk facing the extreme energy industry in North Dakota and around the world, is a major victory for the global climate and [#KeepItIntheGround](#) movement—it was vividly apparent in travels around North Dakota that deep and sustained attention must be given to ensure that our transition away from fossil fuels is a just one and that those communities whose lives have been uprooted by the industry are not once again made disposable when the fracking boom collapses.

As the industry unravels towards its own demise, resistance movements, local initiatives and powerful narratives speaking out against the industry are also growing in strength.

After learning that their land was slated for industry expansion, the [Turtle Mountain Band](#) of the Chippewa people moved unanimously to ban fracking on their 77,000-acre reservation, located in the north-central part of the state, just 190 miles from the fracking epicenter in Fort Berthold.

The Standing Rock Sioux Nation in the southern part of the state have also issued a ban.

As on Mandan, Hidatsa and Arikara land, the movement to ban fracking amongst the Chippewa was led by local women, acting in alignment with their traditional role as providers and protectors of water. Since their success in passing the initial ban, they have been taking the next steps to ensure continued protection and the development of systemic alternatives through the use of abundant [solar](#) and [wind energy](#).

North Dakota has the [sixth largest wind](#) resource potential in the U.S., totaling 770,000 megawatts—which is more than that of all fossil fuel powered plants in the U.S. combined.

While still plagued by an unresponsive tribal council, Mossett's own community is stepping up and taking action of their own accord.

In 2015, local grassroots women including Lisa DeVille and Theodora and Joletta Birdbear, founded Fort Berthold Protectors of Water & Earth Rights (POWER), through which they have been lobbying and directly pushing back against their local officials and the liable corporations.

They have no intention of stepping down in their campaign to stop fracking in North Dakota, bring an end to violence against local women and Indigenous communities and lift up respect for the vibrant Earth.

In December of 2015, Mossett was one of the leading activists and most prominent Indigenous voices present during the United Nations [COP21](#) climate negotiations in Paris. She helped present the “[Keep It In the Ground Declaration](#)” with global allies, delivered a [Frontline Women's Press Conference](#) with the Women's Earth and Climate Action Network and led countless other workshops, conferences and stunning direct actions, including a high-profile demonstration to call out fracking inside of the so-called COP21 “[Solutions 21](#)” exhibition, where French fracking company Suez was promoting their business as climate friendly.

It should be well noted that at COP21 the U.S., along with 195 countries, pledged to keep global warming below [1.5 degrees](#) Celsius. Scientists have stated that we must keep [80 percent](#) of global fossil fuel reserves in the ground to avoid climate catastrophe. Continued fracking will thus contribute to the negation of the [Paris agreement](#) and the demands of science—underscoring the need for serious scrutiny and immediate action to halt this extreme extraction.

In 2016, Mossett will be working to document and expose the connections between fracking and asthma and other local [health impacts](#) and will be taking on the heroic task of founding a nonprofit to promote, teach and manifest food sovereignty and [renewable energy](#) on tribal lands across Montana and North and South Dakota.

Mossett is an inspiration not only in her fierce work to challenge brutal prevailing forces of environmental and cultural destruction, gender violence, compromised health and a dangerously dysfunctional legal system—but also in her tender work to heal and nourish alternatives.

She stands with countless other Indigenous women who are working not just to expose injustice, but to actively build the healthy world we seek.

Until we are accountable to the women and the communities on the frontlines of environmental impacts, there will be no social justice or climate solutions.

It is time to urgently end the injustice and racism of sacrifice zones in the U.S. Instead, we must build hope, build solutions and follow the guidance and experience of frontline women leaders like Mossett, as she and others work for a just transition to a clean energy future that works for the Earth and all it's people.

<http://www.commondreams.org/views/2016/03/14/women-front-lines-fighting-fracking-bakken-oil-shale-formations>

March 14, 2016

Survival Under Threat, Canada's Indigenous Unite Against Tar Sands Pipelines

The Grand Chief of the Mohawk Kanesatake First Nation calls the proposed Energy East pipeline 'risky and dangerous' to indigenous peoples' survival

By Nika Knight
Common Dreams

Indigenous people in Canada are rising up together in greater numbers than ever before to oppose tar sands pipelines on their traditional territory, forming fierce coalitions to oppose pro-oil regional governments and fossil fuel industry officials who are pushing for more tar sands infrastructure.

"An alliance of indigenous nations, from coast to coast, is being formed against all the pipeline, rail and tanker projects that would make possible the continued expansion of tar sands," Grand Chief Serge Otsi Simon of the Mohawk Kanesatake First Nation [wrote](#) to the Quebec premier in a letter dated March 9 and obtained this weekend by the *Montreal Gazette*, which reported on it Monday.

"The Mohawks of Kanesatake will not be brushed aside any longer."
—Grand Chief Serge Otsi Simon

The Mohawk First Nation, located in southwest Quebec, is leading the charge against the controversial [Energy East pipeline](#). The TransCanada pipeline would transport 1.1 million barrels of dirty "[dilbit](#)" a day from Alberta's tar sands mines to East Coast ports, making it the [largest](#) proposed tar sands pipeline to date.

Simon's letter promised that the Mohawk nation would "do everything legally in its power" to block the pipeline's construction, according to the *Montreal Gazette*.

The *Montreal Gazette* reports:

Simon...argues pipeline companies are not to be trusted; their promised automatic spill detection systems have proven unreliable and the number of long term jobs created by such projects exaggerated.

"One need look no further than the Nexan pipeline rupture this past summer, which caused one of the worst spills in Canadian history," Simon writes, adding sections of TransCanada's Keystone 1 pipeline are 95 per cent corroded after only two years in operation.

Simon says the Energy East pipeline would pass directly through Mohawk lands including the Seigneurie of the Lake of Two Mountains and the Outaouais River in violation of treaty rights. The risk of toxic spill is significant, he says.

The Mohawk nation's opposition to Energy East might feel particularly resonant to Canadian observers, as the First Nation suffered greatly and made international headlines for its opposition to a private project on its territory over 25 years ago. The Quebec government had allowed a golf course to be built atop a sacred Mohawk burial ground and dismissed on a technicality the First Nation's attempt to go through the courts to protect its land. The resulting 78-day armed standoff, [known as the Oka crisis](#), turned the inadequacies of First Nations consultation into a national concern for the first time in Canada's history.

Today, over 100 First Nations from all over Canada, including some as far away as British Columbia—who are deeply involved in their own [pipeline battles](#)—have joined the Mohawk Kanesatake in their fight against Energy East, [according](#) to social justice group the Council of Canadians.

"We unanimously oppose the Energy East Pipeline Project in order to protect our non-ceded homeland and waterways, our traditional and cultural connection to our lands, waterways, and

air."

—Grand Chief Ron Tremblay, Wolastoq First Nation

"Besides the official opposition of the Assembly of First Nations Quebec and Labrador representing 43 Quebec chiefs," the *Montreal Gazette* reported, "the list against TransCanada's pipeline now includes the Union of British Columbia Indian Chiefs...and the Iroquois Caucus regrouping Mohawk nations in Quebec and Ontario."

In February of this year, Grand Chief Ron Tremblay of the Wolastoq First Nation said that "As members of the Wolastoq Grand Council we unanimously oppose the Energy East Pipeline Project in order to protect our non-ceded homeland and waterways, our traditional and cultural connection to our lands, waterways, and air." The Wolastoq Grand Council "asserts Indigenous Title over the lands and waters within the entire Saint John River watershed," the Council of Canadian observes.

"The Trudeau government has pledged to fully implement the United Nations Declaration on the Rights of Indigenous Peoples," writes Brent Patterson, political director of the Council of Canadians. "That declaration acknowledges the right to 'free, prior and informed consent', which extends beyond the 'duty to consult' with Indigenous peoples. But just last week the Canadian Press reported that federal natural resources minister Jim Carr says he shares a 'common objective' with those who want to see the Energy East pipeline built."

Quebec has been [holding](#) a series of environmental hearings for the past week on the Energy East pipeline, during which TransCanada [acknowledged](#) that it would take five to 10 years to clean up a groundwater-contaminating spill from the proposed pipeline.

The Mohawks of Kanesatake have publicly opposed the pipeline for several years, and in his letter Simon writes that they have still not been approached or consulted on it by TransCanada.

"One thing for sure," Simon wrote in his March 9 letter, "we the Mohawks of Kanesatake will not be brushed aside any longer and we wish to press upon you that we reserve the right to take legal action if necessary to prevent the abuse of our inherent rights."

Simon discussed his First Nation's opposition to the project in depth in a [video](#) released in 2014: <https://www.youtube.com/watch?v=bEpuxxLXqjU>

<http://www.commondreams.org/news/2016/03/14/survival-under-threat-canadas-indigenous-unite-against-tar-sands-pipelines>

March 15, 2016

Sisters of Earth seek planet literacy, look to indigenous wisdom at upcoming conference

By Sharon Abercrombie
Global Sisters Report

In the summer of 1994, 65 religious women gathered at St. Gabriel Monastery in Clarks Summit, Pennsylvania, to share their emerging environmental dreams with one another.

They named their new vision circle the [Sisters of Earth](#).

The women pictured themselves opening retreat centers and study programs in earth literacy, based on the new cosmology as written about and taught by cosmologist Brian Swimme and "geologist" Passionist Fr. Thomas Berry. One sister dreamed of co-founding a green "ecozoic" monastery with Berry, her mentor. Another aspired to have her community open a green-ministry-of-the-arts shop where people could purchase calendars and posters with Earth spirituality themes.

Their shared vision was to heal both the human spirit and the planet's life-support systems, recalls St. Joseph of Carondelet Sr. Toni Nash, a Californian and one of the four founding members.

Originally, the dream was incubated by Nash, St. Joseph Srs. Mary Lou Dolan and Mary Southard, and Passionist Sr. Gail Worcelo. The four women knew they needed one another's encouragement in bringing their waking dreams to fruition. They had talked to other sisters with similar untested aspirations.

What they aspired to do, after all, was all so very new. "And we didn't have the energy to reinvent the wheel," Nash said.

Were they being impractical? Indulging in fantasies? Well, hardly.

The women, whose networking membership now includes both religious and lay, have continued to meet biennially in the summer for weekend conferences throughout the U.S., with attendance growing from those original 65 to now 150 participants. Their dreams have successfully played out.

Southard, a working artist and a teacher of the universe story, founded the [Ministry of the Arts](#) center at her community's motherhouse in Ogden, Illinois, the same year as the first Sisters of Earth conference. To this day, one of the center's most popular items is a yearly calendar Southard creates that features Earth and cosmological themes.

Dolan launched a [master's program in earth literacy](#) in 1997 at St. Mary-of-the-Woods College in Indiana. Two years later, Sr. Gail Worcelo co-founded [Green Mountain Monastery](#) in the Burlington, Vermont, diocese with Berry, Sr. Bernadette Bostwick and Sr. Rita Ordakowski.

Nash, who has had a long teaching career in ecological centers, recently completed her doctoral studies in philosophy and religion at the California Institute of Integral Studies in San Francisco.

"I would give all of these talks on the new cosmology, and I couldn't just keep hoping I had everything together," she said.

Nash's latest project has been writing a series on ecological conversion for her St. Joseph Carondelet community in California based on Pope Francis' encyclical, "*Laudato Si'*", on Care for Our Common Home."

The Sisters of Earth membership includes teachers, gardeners, artists, writers, administrators, workshop and retreat presenters, mothers, contemplatives, and activists around the globe, in North and South America as well as Europe, Australia and New Zealand.

The Sisters of Earth are set to next meet this summer (July 7-10) at the Presentation Retreat and Conference Center in the mountains of northern California near Los Gatos. When they gather, their circle will feature stories of activism from four indigenous women who are standing up against the damaging effects of extractive industries in their communities; among them, oil, gas, uranium, nuclear, gold and forestry.

The conference brochure states that "indigenous wisdom is most likely the closet to true Earth wisdom that we have." Here are profiles on each of the four women set to speak:

- Melina Laboucan-Massimo, of the Lubicon Cree (one of Canada's First Nations) from Little Buffalo, Alberta, Canada, has had firsthand experience of the impacts of Alberta tar sands mining on her homeland. A Greenpeace activist since 2009, Laboucan-Massimo helped lead the public outcry two years later, when [28,000 barrels of crude oil leaked](#) from a pipeline near Little Buffalo in one of the largest oil spills in Alberta. An outspoken advocate for indigenous rights, she has authored many articles on the tar sands, as well as produced documentaries on water issues and indigenous cultural revitalization.
- Jihan Gearon, of mixed Navajo and African-American heritage, hails from Flagstaff, Arizona, where she directs the [Black Mesa Water Coalition](#). She organizes and speaks in both North American and around the globe on issues of climate justice, the impacts of energy development and climate change on indigenous peoples and people of color. The environmental news site Grist named Gearon among its [Grist 50](#), a list of sustainable leaders to expect to be talking about in 2016.
- Beata Tsosie-Pena has lived with the devastation of her pueblo in New Mexico caused by the manufacturing and testing of nuclear weapons in Los Alamos. In addition to her role as coordinator of the [Tewa Women United](#) environmental justice program, she is a poet, musician, wife and mother who teaches writing workshops for teens.
- Medical Mission Sr. Birgit Weiler works with indigenous Awajun and Wampis who are struggling to defend their land from exploitation of oil, gold, lumber and the use of their river water in the construction of huge plants for generating energy. For more than 20 years, she has lived in Peru, where she teaches at Jesuit University Antonio Ruiz de Montoya in Lima.

The conference will feature local indigenous leaders, as well, said Sr. Maureen Wild, one of the organizers. Women from the local Mutsun Ohlone tribe of the Los Gatos area will conduct a special entryway ceremony on the conference's first day.

Nash said the conference hopes to also feature updates on the Flint, Michigan, water crisis. Other breakout groups are set to discuss a variety of topics, including contemplative activism, environmental justice and the rights of minority cultures, transition towns and urban ecology, and divestment from fossil fuels.

Registration is still open. For further information, contact Wild at maureen@paxgaia.ca.

<http://globalsistersreport.org/blog/gsr-today/environment/sisters-earth-see-planet-literacy-look-indigenous-wisdom-upcoming>

March 17, 2016

Holiest of times for water worshippers in Sydney

By Brendan Trembath
ABC News

Hundreds of followers of an ancient Middle Eastern faith have descended on a river in western Sydney for one of the holiest weeks in their calendar.

Mandaeans perform an elaborate baptism ritual as a central part of their beliefs.

They are also pacifists, and have suffered a long history of persecution in Iran and Iraq — and Australia now has one of the world's biggest communities of Mandaeans.

The Nepean River is not the Tigris or Euphrates but the next best thing for the dozens of followers in white robes, who wade in as a priest recites centuries old prayers.

Tony Alkhamici from the Sabian Mandaean Association said they revered John the Baptist as a prophet, and that baptism meant a lot to them.

"It's very important for all of us to be baptised in the water, in the flowing river," he said.

Sisters Lisa and Yarden Alkhamicy, who took part in the ritual, splashing water on themselves, said it would bring them good luck and a happy life.

This week is especially holy for the Mandaean community.

Barunaya Shnan, who came with her family to river, said it was a festival marking the creation of the world.

"Not the earth," she emphasized, but when heaven started.

Baptisms during this time are highly regarded.

Too dangerous for relatives in Iraq to practice religion

Another distinguishing feature of the Mandaean faith is you have to be born into it, although Mr Alkhamici, who has four children, does not see their numbers dwindling.

"I think, the group, it's growing here in Australia," he said.

Most Mandaeans now live outside their ancestral homeland.

The Iraq war drove thousands out, including Maher al Sadti, who faced the prospect of mandatory military service.

He said he was pleased he had ended up in Australia.

"I came as a refugee a long time ago, maybe about 15 years ago," Mr al Sadti said.

He now works as a security manager and said he considered Australia his home: "It's my country."

The land of his ancestors remains volatile and Mr Alkhamici considers it worse than the Saddam Hussein era.

"We've got some friends and relatives, they still live there," he said.

"They can't do what we do here because it's so dangerous with bombs and ISIS and all that stuff."

Some Mandaeans see the situation in Iraq as going from bad to worse.

"People are struggling with basic needs like water and electricity," said Martin Halboos, a translator at a Sydney hospital.

"If you are fighting for your basic needs and your basic rights you cannot fight for your religious rituals."

The Mandaeans by the Nepean River can practice their religion in peace, with the only disruption the occasional powerboat pulling a water-skier.

<http://www.abc.net.au/news/2016-03-18/mandaeans-holiest-of-times-for-water-worshippers-in-sydney/7256618>

March 18, 2016

Vatican to undertake ecological initiatives during Easter season

By Junno Arocho Esteves
Catholic News Service
National Catholic Reporter

During Holy Week and in the Easter season, the Vatican will take part in several initiatives highlighting the importance of ecology and the care for creation.

The Governorate of Vatican City State announced Friday that the thousands of floral arrangements for the Easter morning Mass and the pope's solemn blessing "urbi et orbi" (to the city and to the world), will be repurposed after the celebrations.

Thousands of bushes, flowering trees, tulips and other flowering bulbs, which are a gift of growers in the Netherlands, will be replanted in the Vatican gardens. The plants also will be distributed to various pontifical colleges and institutions "so that they may bloom in the coming years," the governorate said.

Charles van der Voot, who has designed the Vatican Easter floral arrangements for the past 15 years, will arrange the flowers for the last time in 2016, the Vatican said. He will be succeeded by another Dutch florist, Paul Deckers, who has assisted van der Voot.

Heeding the pope's call to care for the environment, the governorate also announced the inauguration of an "ecological island," a recycling center for the separate disposal of waste and compost.

The cupola of St. Peter's Basilica and Bernini's famed colonnade will also go dark Saturday for one hour in an effort to promote climate change awareness.

The Vatican announced it will join countries around the world in turning off non-essential lights for "Earth Hour 2016," an event promoted by the World Wildlife Fund International. The initiative, according to the fund's website, is meant as "a symbol of their commitment to the planet."

<http://ncronline.org/blogs/eco-catholic/vatican-undertake-ecological-initiatives-during-easter-season>

March 18, 2016

Religion and Ecology Summit Establishes CIIS as Leader

Ecology, Spirituality, and Religion Program Hosts Critical Dialogue

By Jessica Paden
California Institute of Integral Studies

An enthusiastic crowd of 111 people packed Namaste Hall on a rainy Friday for the inaugural

Religion and Ecology Summit at CIIS.

Hosted by the Ecology, Spirituality, and Religion (ESR) program and sponsored by a grant from the American Academy of Religion, with additional support from the Philosophy and Religion department, the Summit invited leaders from community organizations and academia to speak about the intersection of religion and ecological issues.

“CIIS, in convening thought leaders in the field for this essential dialogue, is positioned as a leader in the field of religion and ecology,” says ESR Chair Elizabeth Allison.

“This conversation is necessary,” she says, “because leading thinkers have been realizing that the environmental crisis is a crisis of conscience and consciousness. We have to reconsider how we think about humans' place in the world,” she says.

“One thing we can do is look to sources of wisdom, and one of those sources is religion—a deep moral force we have that’s available to guide us.”

The keynote address, delivered by Dr. Mary Evelyn Tucker, Yale University senior lecturer and research scholar, stressed the vital need for a focus on values in the sciences—a new marriage of ethics with the humanities and the natural sciences. “This flourishing future is going to require the coming together of science and values, which have been so separated, especially in academia,” Tucker said.

Economics and Religion

Dr. Richard Norgaard, Professor Emeritus of Economics at UC Berkeley, a self-proclaimed “economist by training, not by conviction,” spoke on the morning panel. “Growth has become the solution to everything,” he said, “Economics explains how we are supposed to behave...we’re supposed to be consuming more and more, if we don’t do that the economy will collapse. Economics has become a kind of religion,” he said.

Further emphasizing the point, Philosophy, Cosmology, and Consciousness Professor Sean Kelly said, “Science without conscience is immoral. Science with conscience—these two streams need to be rewoven together.”

For ESR doctoral student Laura Pustarfi Reddick (PCC ’13) the Summit was a wonderful experience. “All of the speakers were inspiring, focusing on the intersections of Religion and Ecology from multifaceted angles. I feel reinvigorated in my own research in the doctoral program.”

ESR doctoral student Kim Carfore and PCC doctoral student Elizabeth McAnally gained valuable professional experience and networked with leaders in the field as they handled the logistical aspects of the Summit, including a convivial lunch, featuring Indian dishes, for all participants.

Eijun Linda Cutts, abiding abbess of Green Gulch Farms and Central Abbess of the San Francisco Zen Center; Rev. Canon Sally Bingham of the Regeneration Project and Interfaith Power & Light; and Andreas Karelas from Re-volv Solar, were among the powerful voices to speak at the day-long conference.

Further evidence of the conference's success is that plans are underway for a follow-up conference next year. In addition, the Western Region of American Academy of Religion, is interested in collaborating with CIIS to bring a focus on Religion and Ecology to the 2018 Western Region meeting.

"It's thrilling to have a grad program here at CIIS that can support these efforts re-linking ecological science with the deep wisdom and ethical guidance of the world's religious and spiritual traditions," says Allison.

"Our grad students can support environmental organizations as researchers and interns as we work to re-weave the fabric of values, ethics, and ecological sciences for a more just and sustainable future."

Read the Introduction, ["Two Streams Converge at the Religion and Ecology Summit,"](#) by Robert McDermott, Department Chair of Philosophy, Cosmology, and Consciousness.

<http://www.ciis.edu/ciis-today/news-room/headlines-archive/esr-summit>

March 18, 2016

A Martyr of 'Laudato Si'?

The indigenous spirituality of assassinated activist Berta Cáceres

By Betsy Shirley
Sojourners

Less than two weeks after the March 3 murder of acclaimed indigenous Honduran activist Berta Cáceres, [Nelson García](#), another Honduran activist, was murdered outside his home. Both García and Cáceres were members of the Council of Popular and Indigenous Organizations of Honduras (COPINH), the indigenous rights organization Cáceres co-founded.

Though [Honduran police](#) have claimed Cáceres' murder was the result of an attempted robbery, many believe it was a political assassination, intended to silence her. Cáceres' family, along with more than [200 human rights organizations](#) and now the Holy See, are calling for an independent international investigation into the crime.

"I want to express my desire that there be an independent and impartial investigation into what happened in order to resolve this horrendous crime as soon as possible," wrote Cardinal Peter

K.A. Turkson, President of the Pontifical Council for Justice and Peace, in a letter addressed to Cáceres' family and friends.

For those closest to Cáceres, it's a small but encouraging sign.

"It's justifying what we've all been saying: that Bertita's had a profound effect around the world," Cáceres' nephew, Silvio Carrillo, told Sojourners.

And, by some measures, that legacy can be found everywhere from remote villages in Honduras to papal encyclicals.

"I am vulnerable"

Berta Cáceres knew persistence was dangerous.

"Giving our lives in various ways for the protection of the rivers is giving our lives for the well-being of humanity and of this planet," she [said](#) on April 20, 2015, after accepting the Goldman Prize for her leadership in a nonviolent campaign that pressured the world's largest hydroelectric company to withdraw from the Agua Zarca dam on the Gualcarque River.

That same day, an international organization that monitors environmental abuse reported that Honduras is ["the deadliest country in the world to defend the natural world."](#) According to the [Global Witness report](#), at least 109 environmental activists were killed there between 2010 and 2015. Cáceres herself had received death threats for more than a decade, and her colleague, [Tomás García](#), was shot by a military officer in 2013. Later that year, Cáceres [told Al-Jazeera](#), "I take lots of care but in the end, in this country where there is total impunity I am vulnerable...when they want to kill me, they will do it."

The deadly environment for activists is closely tied to recent Honduran history. Following the 2009 coup, in which democratically elected Honduran president Manuel Zelaya was deposed, the new government declared Honduras ["open for business"](#) and granted profitable contracts to transnational companies looking to capitalize on Honduran natural resources — including resources on indigenous land. When leaders like Cáceres demanded the rights guaranteed to indigenous people by the U.N and the International Labor Convention — including the right to determine how indigenous land is used — it wasn't great for business. The death threats followed.

Cáceres' words about "giving our lives" not only underscore her persistence and courage but also her deeply rooted indigenous spirituality — an understanding that the well-being of humanity depends on the well-being of the earth.

"When we started the fight for Rio Blanco, I would go into the river and I could feel what the river was telling me," Cáceres [said](#) in 2015.

"I knew it was going to be difficult, but I also knew we were going to triumph, because the river told me so."

The spirituality of resistance

According to [the Lenca creation story](#), when the first man began to clear land to grow maize, the trees bled and cried out against him. God then instructed the man to perform a *compostura*, “during which the man should sacrifice domestic animals to God and the earth to ask forgiveness for the violence he was about to do.”

Today, the Lenca people live in eastern El Salvador and western Honduras. But according to David Escobar, a Salvadoran Lenca and indigenous activist based in California, the concept of *compostura* remains an essential part of Lenca culture.

“‘Permission-giving’ is a common value that is still practiced today among the Lencas of Honduras and El Salvador,” he [explained](#).

Consequently, when heavy machinery arrived on the Gualcarque River in 2011 to begin constructing a dam, without the permission of the Lenca people, the Lenca viewed it not only as the destruction of their livelihood and water supply, but also as the destruction of a sacred site and complete disregard for their indigenous rights.

So with the help of Cáceres and COPINH, the Lenca people fought back: On April 1, 2013, members of the Lenca community created a human road block to the construction site. They held out for [21 months](#).

As part of their defense, the Lenca people made traditional [composturas](#), offering food and drink to the earth and asking [the spirits of the earth, water, and sun](#) for protection as they worked for justice. They also engaged the indigenous tradition of *caminata*, walking as a community to the dam headquarters while offering prayers or incense.

Cáceres [identified these actions](#) as a major turning point in halting construction on the Agua Zarca dam.

“In our fight to protect the Gualcarque River, the most powerful element has been the Lenca people’s spirituality and an impressive tenacity in the struggle that continues to this day,” she said.

“Forgive me!”

Shortly after Berta Cáceres was murdered, Fr. Moreno Coto, a Jesuit priest known in Honduras as “Padre Melo,” [wrote a note](#) expressing “pain and rage” at the death of someone he called a “friend” and “sister.”

“We had a particular history of close friendship and common struggle,” he said.

A few days later, with the help of Fr. Fausto Milla, a diocesan priest who was another of Cáceres’ closest allies, Padre Melo conducted Cáceres’ funeral.

Cáceres, like many Lenca people, was raised Catholic, but she herself identified most closely with the practices and beliefs of her indigenous heritage. Though Cáceres had the support of local leaders like Frs. Coto and Milla, Carrillo said his aunt had a complicated relationship with the Catholic Church.

“Certain parts of the Catholic Church have not done well by the indigenous population there,” explained Carrillo.

For Cáceres, this complicated relationship included ongoing legacy of colonization by Spanish Catholics — which, by conservative estimates, cut the indigenous population in half — as well as Cáceres’ ongoing struggle with the Honduran hierarchy. According to Cáceres, Cardinal Óscar Andrés Rodríguez instructed churchgoers [not to work with COPINH](#) or listen to radio stations that were too critical of the Honduran state. Throughout his tenure as archbishop, Cardinal Rodríguez has also been accused of endorsing the 2009 military coup by reading “[a statement on national television that seemed to bless the action](#).” The cardinal has [denied](#) these claims.

Cardinal Rodríguez’s feelings about Cáceres seem unchanged by her murder. Carrillo told Sojourners that although someone from the apostolic nunciature in Buenos Aires — the Holy See’s embassy in Argentina — had called Cáceres’ mother, offering condolences on behalf of the pope, no one in his family had heard from the highest-ranking Catholic in Honduras.

Jenny Atlee, who has worked on human rights issues in Central America for more than three decades, confirmed that Cardinal Rodríguez had made “disparaging remarks” about Cáceres and COPINH. But Atlee also noted that the discrepancy between the hierarchy and grassroots of the church wasn’t unusual.

“There’s a real gap between those two positions ... with the top levels of the Catholic church being very allied with the powers that be ... and another layer of church which is more rooted in the lives and struggles of the poor and accompany those struggles and interpret and reflect on scripture from that reality,” she said.

A martyr of Laudato Si?

But when it comes to the powers that be vs. the poor, at least one person on top level of the church seem to be squarely on the side of the latter: Pope Francis.

In 2014, Cáceres met Pope Francis at the first World Meeting of Popular Movements at the Vatican. During that meeting, the pontiff [assured](#) delegates that their concerns — a desire to have “land, housing, and work” — would have a place in his then-forthcoming encyclical on the environment.

And the Holy Father delivered,

“It is essential to show special care for indigenous communities and their cultural traditions,” he wrote in the fourth chapter of *Laudato Si: On Care for Our Common Home*, his 2015 encyclical.

He also acknowledged that “agricultural or mining projects” posed a serious threat to the survival of indigenous people.

Even the broader themes of *Laudato Si* sound like the interconnected worldview of indigenous spirituality that was so central to Cáceres’ work.

“A true ecological approach always becomes a social approach,” wrote Pope Francis.

“It must integrate questions of justice in debates on the environment, so as to hear both the cry of the earth and the cry of the poor.”

Following Cáceres’ death, one Italian newspaper hailed her as “[a martyr of *Laudato Si*](#).” Jenny Atlee, who knew Cáceres for more than 20 years, pointed out that while that descriptor might be accurate, the Lenca woman should also be viewed as part of the “long, ongoing history of violence and genocide against indigenous people.”

Perhaps the best suggestion for how we memorialize Cáceres comes from Naomi Klein, a secular activist who was invited to discuss *Laudato Si* at the Vatican.

“Particularly in Latin America, with its large indigenous populations, Catholicism wasn’t able to fully displace cosmologies that centered on a living and sacred Earth, and the result was often a Church that fused Christian and indigenous world views,” she wrote in [the New Yorker](#).

“With *Laudato Si*, that fusion has finally reached the highest echelons of the Church.”

As Klein points out, the lines of influence flow from indigenous spirituality to the encyclical, not the other way around.

Or more to the point: Berta Cáceres is not a martyr in the tradition of *Laudato Si*. *Laudato Si* is an encyclical echoing what indigenous leaders like Cáceres have been saying for centuries.

<https://sojo.net/articles/martyr-laudato-si>

March 21, 2016

Forward Movement Announces New Video Curriculum on Science and Faith

Forward Movement

Are science and faith compatible? Ordained scientists in The Episcopal Church offer insight on this sometimes controversial question through a new groundbreaking video curriculum offered by Forward Movement, now available for free download. The curriculum, offered in partnership with the Committee on Science, Technology and Faith, invites a sense of wonder and discovery to play a part in building care for creation in our faith communities.

[*In the Beginning*](#) explores the Bible's basic doctrine of creation, the modern scientific worldview, perspectives on the Big Bang and evolution, and the biblical roots for environmental care. The Rev. Stephanie Johnson says it is a "thoughtful, engaging invitation into a deeper understanding of all God's Creation." Featured clergy-scientists include Katharine Jefferts Schori—former Presiding Bishop and oceanographer; Nicholas Knisely—the Bishop of Rhode Island and physicist; Rev. Lucas Mix—evolutionary biologist; Rev. Alistair So—microbiologist; and the Rev. Stephanie Johnson—environmentalist.

Day Smith Pritchett, executive director of The Episcopalian Evangelism Society says, "As an evangelism effort, it speaks to those who are passionate about the environment but may not know that people of faith are, too. For those who are within the church but struggling to reconcile their faith with science, it gives them a creed that embraces both."

In the Beginning serves as an excellent platform for a Sunday School or adult formation course. The curriculum serves as a deeper exploration of *A Catechism of Creation*, a downloadable document that explores The Episcopal Church's understanding of creation in the traditional question-and-answer format. *A Catechism of Creation* is available for free download at <http://tinyurl.com/CatechismOfCreation>. Four weeks of free downloadable lesson plans, discussion questions, and links to downloadable videos for each class are available [here](#).

Forward Movement is a ministry of The Episcopal Church located in Cincinnati, Ohio. Since 1935 we have produced resources to inspire disciples and empower evangelists around the globe.

<http://news.forwardmovement.org/2016/03/forward-movement-announces-new-video-curriculum-on-science-and-faith/>

March 21, 2016

Immigrants have been arrested looking for alternatives to Flint water

By Mark Pattison
Catholic News Service
National Catholic Reporter

Imagine turning on the tap in the morning and seeing something that's "looked like toilet water coming out of your faucet," in the words of one Catholic leader. That's been the reality facing tens of thousands of residents of Flint, Mich., every day for more than a year.

Now, imagine looking for safe, potable water and getting arrested for your trouble. That, too, is the reality -- and the fear -- for immigrants living in Flint without legal permission.

Deacon Omar Odette, pastoral administrator of Our Lady of Guadalupe Parish in Flint, said he knows members of his parish who have been arrested for not having immigration documents.

"The (federal Department of) Homeland (Security) has come out and said they will not put undercover people in the distribution centers -- but that's only the distribution centers, not the rest of the city," Odette told Catholic News Service in a telephone interview.

"They're picked up, hauled away, given a court date. That's really a big issue. It's not a minor issue, it's a major issue," he said. "The Border Patrol is only an hour and 10 minutes away from Flint" in Port Huron, which is separated from Canada by the St. Clair River, "and they come through quite a lot looking for people."

Odette was part of a delegation from the PICO Neighborhood Network and Michigan Faith in Action that flew Wednesday from Flint to Washington by way of Chicago to attend the House hearing on Thursday on the ongoing Flint water crisis with Michigan Gov. Rick Snyder and Environmental Protection Agency Administrator Gina McCarthy.

While in Washington, Odette and Faith in Action delegates also met with representatives of the Catholic Campaign for Human Development, the U.S. bishops' domestic anti-poverty arm, to update the situation in Flint, "how distribution is going and what they need still," Odette said. "Looking long-term down the road. It's not going to be the rest of this year (to rid the water system of lead), it's going to be two, three years. ... adapting to whatever people need. They're really dying to get that across to the people," he explained.

Our Lady of Guadalupe became a water distribution center out of necessity. "Because a lot of our people aren't documented, it was the straw that broke the camel's back. They weren't giving people water because they didn't have driver's licenses," Odette told CNS. "That's how we got into distributing water -- our people were getting denied. I don't know how many Hispanic communities came by to give us water, but there were semi-loads."

He recounted the story of a 6-year-old Chicago boy who wanted to help and his pastor told him, "Think about it." The lad thought, and he brought 88 cases of water from the Windy City. "It's amazing to think a 6-year-old boy could think like that," Odette said.

Majority-black parishes in southwestern Michigan brought both U-Hauls full of bottled water "and the people to unload it. Working with our people, it looked like they were here their whole lives," he remarked.

"We still distribute five days a week. We go from 9 to 6," Odette said. "Every day we're learning something new in how to do this. They didn't teach this in the seminary."

Odette, who is retired, took on the Our Lady of Guadalupe assignment because the diocese of Lansing, Mich., is short on Spanish-speaking priests. While the deacon is not a native Spanish speaker, his wife is. "She takes very seriously what they say about wives being the biggest helpers of deacons," he said.

Our Lady of Guadalupe got involved in PICO "when the water crisis started," Odette said. "One of the organizers contacted my parish and wanted to explain what PICO was about. I liked the

idea. We needed help. I really knew we needed help citywide, and especially the Catholic community. They've been a tremendous help. They've put in a lot of effort."

Two years ago, city managers decided to switch the city of Flint's water source from Detroit's supply to the Flint River to save money. The city has been since reconnected to the Detroit water supply but during the time residents were using river water, the corrosive water ate away at old lead-lined service pipes that connect to residents' homes, ruining pipes and giving them lead-contaminated water.

When the crisis started making headlines, "people in Flint weren't just going to lay down and be nonresponsive," Odette noted. "There really hasn't been a good plan yet. They're started replacing some of the piping, but they do one a day. They call it 'fast-laning,' but when you have 30,000-some houses, it's going to take a long while if you do it one a day."

It may require replacing "things in the house that are bad" because of lead contamination, Odette said. One reason for the trip to Washington, he added, was to "let all facets of the government know that Flint's going to need money -- lots and lots of money -- unless you want to keep on poisoning 100,000 people."

<http://ncronline.org/blogs/eco-catholic/immigrants-have-been-arrested-looking-alternatives-flint-water>

March 21, 2016

C'mon, get happy: Denmark leads in latest global happiness index

By Brian Roewe
National Catholic Reporter

The United Nations on Sunday marked its annual International Day of Happiness, and according to at least one report, the epicenter of the celebration was situated squarely in the state of Denmark.

The title of the happiest nation on earth belongs once again to the Scandinavian country, which has now held the distinction in three of the four editions of the World Happiness Report. Switzerland momentarily swiped the "world's happiest" label in the 2015 report, before settling for the silver medal this year.

The [2016 World Happiness Report update](#), released Wednesday and published by the U.N. Sustainable Development Solutions Network, shows Denmark atop a top-10 field cluttered with its fellow Nordic nations. The U.S. ranks no. 13 out of 157 countries -- sandwiched between Austria and Costa Rica, and trailing its neighbor to the north, Canada (6).

The '16 update is the fourth iteration of a report first issued in 2012. The next full report is expected in 2017, and will include chapters looking specifically at two global sub-populations,

China and Africa. The latest report places special focus on inequality, specifically the inequality of well-being. It also offers several supplemental chapters, with one exploring the links among happiness, the common good and Catholic social teaching.

The idea of ranking nations by happiness draws from the belief that measuring happiness via life evaluations offers a better indicator of human welfare than more traditional, individually viewed measures, such as income, poverty, health, education and good government.

“The realities of poverty, anxiety, environmental degradation, and unhappiness in the midst of great plenty should not be regarded as mere curiosities,” said Jeffrey Sachs, director of the U.N. Sustainable Development Solutions Network, in the 2012 World Happiness Report. “They require our urgent attention, and especially so at this juncture in human history.”

To arrive at a “happiness score,” researchers analyzed responses from several global surveys, including the Gallup World Poll, which asks a life evaluation question where respondents rate on a 0-to-10 scale the quality of their lives (10 being the best possible life). A combination of six factors, the report’s authors say, largely explain the resulting happiness scores: GDP per capita, healthy years of life expectancy, social support in times of need, trust in absence of government and business corruption, perceived freedom to make life decisions, and generosity.

As a whole the world has consistently placed itself in the middle of the happiness scale, averaging a 5.4 score in 2016, though greater variation appeared across geographic regions.

The well-being of life in countries like Denmark and other Scandinavian countries [has received heightened interest](#) during the current U.S. presidential election cycle, where hopeful Democratic candidate Sen. Bernie Sanders (I-Vt.) has raised numerous social democratic policies rampant in the region as examples for the U.S. to emulate.

While there’s much debate on the merits of Sanders’ campaign positions, as far as the happiness rankings go, “the Scandinavian countries just tend to knock this out of the park,” Anthony Annett, an advisor with the Earth Institute at Columbia University, told *NCR*.

The bulk of Denmark’s happiness in the rankings is explained through a combination of its GDP per capita (\$60,707 in 2014, [according to the World Bank](#)), healthy life expectancy and social support. As a welfare state, its citizens pay higher tax rates, but people recognize they get a lot in return, Annett said.

“You have great social services, you get great education, you get great health care. If you’re in a time of need, if you lose your job, you’ll be taken care of. But there’s also sufficient trust in society that people tend not to take advantage of that,” he said, acknowledging that the relative homogeneity of the Danish population factors into its trust and social solidarity.

In one chapter of the World Happiness Report, Sachs, who also heads the Earth Institute, argued that human well-being cannot be achieved by pursuing any single aspect (such as economic growth) but through three dimensions of sustainable development: economic, social and environmental. He likens Pope Francis’ encyclical “*Laudato Si*’, on Care for Our Common

Home” to the U.N. Sustainable Development Goals -- adopted in September shortly after Francis [addressed the U.N. General Assembly](#) in New York -- as key documents emphasizing a holistic approach to human well-being.

In terms of defining human progress, Sachs writes that Francis “places his emphasis on an integral ecology that cares for the poor, protects culture, directs technologies towards their highest purposes, overcomes consumerism, returns dignity to work, and protects the environment.”

In a [separate essay](#) accompanying the report, Annett connects dots among happiness (or human flourishing), the common good and Catholic social teaching. Humans, he argues, “are inclined to seek a deeper sense of happiness than mere hedonistic notions of pleasure and the absence of pain.” That deeper truer form of happiness is, as Aristotle put it “eudaimonia,” or “human flourishing.”

Annett described eudaimonia as a focus “on living in accord with what is intrinsically worthwhile to human beings -- purpose, meaningful relationships, good health, and contribution to the community.” In terms of relationships, he said the individual and common good “are inseparable,” that humans draw happiness from a sense of mutual flourishing where they seek not only a good life for themselves with others.

“This is really closely related to Catholic social teaching, because Catholic social teaching -- especially through the common good and integral human development -- is all about taking that Aristotelian idea that the life of a community, the life of a relationship is actually a higher good than the good of the individual,” Annett told *NCR*.

This idea of happiness, while not new and explored by the likes of Popes Francis and Benedict XVI, has lost traction since the Enlightenment, he said. One way to “put this humpty dumpty back together again” in the current global economic system, Annett argues, is to use Catholic social teaching as a model. That equates to, for instance, strengthening the bonds between business and workers toward an emphasis on “good goods, good work and good wealth,” to the benefit of both humankind and the natural environment.

The two pillars of Catholic social teaching -- the dignity of each person and the common good -- are manifest in the variables accounting for individual nation’s happiness in the report, he added. While not exactly major Catholic hubs, Denmark and other Scandinavian countries are indirectly applying these principles, he argued.

“People being willing to pay high taxes to support other people in need, because they know it’s a sense that we’re all responsible for all, as [Pope] John Paul II said,” Annett said.

<http://ncronline.org/blogs/eco-catholic/c-mon-get-happy-denmark-leads-latest-global-happiness-index>

March 22, 2016

How religious cooperation is leading to more toilets in India

By Allison Pond
Deseret News

For decades, one of India's largest religious festivals left a stinking mess at the mouth of the Ganges River.

Millions of pilgrims gather each January for a dip in the sacred waters of the Ganges Delta where it empties into the Bay of Bengal. The river has been a symbol of purification since ancient times, yet the festival, the Ganga Sagar Mela, left its beaches polluted with human waste from pilgrims lacking sanitary knowledge, a common problem in the developing world, and access to toilets.

In 2016, that all changed. Thousands of toilets were installed, and religious leaders exhorted cleanliness, encouraging pilgrims to use the toilets and then wash their hands with soap. The results, according to organizers, were significant, with many people using a toilet for the first time, allowing the festival to efficiently handle waste.

The push for a "green and clean" Ganga Sagar Mela was a joint effort between the government, the festival administration and the [Global Interfaith WASH Alliance of India](#) — a group of Hindu, Christian, Muslim, Buddhist, Jain and other faith leaders who believe not only in a pure heart, but also a clean body and environment.

GIWA-India, which has also teamed up with [UNICEF](#), is far from the first partnership between religious leaders and a development organization to tackle international humanitarian issues. Religious leaders are effective at spurring change because of their moral influence, strong community networks and on-the-ground insight into vulnerable populations. But they often lack technical know-how, and NGO workers sometimes need to overcome their own biases about working with religious groups. As they do, they are forging partnerships on issues ranging from health, nutrition and education to women's issues and water and sanitation.

"For many years, people lost sight of the importance of religious institutions and beliefs in international relations," said [Katherine Marshall](#), senior fellow and head of the Religion and Global Development program at Georgetown University's Berkley Center for Religion, Peace and World Affairs.

"But in recent years — particularly since 9/11, but really going back further to the Iranian revolution of 1979 — within the State Department, USAID, the World Bank and U.N. agencies, there is much more awareness that you simply can't ignore religion," Marshall said.

AIDS to zebras

People around the world consistently tell researchers they trust family members and religious leaders more than government or NGOs, Marshall said.

In India, 69 percent of the rural population has no access to toilets and engages in unsanitary behaviors like open defecation and not washing their hands, according to UNICEF. But 99 percent believe or practice a religion, and that's where development groups and faith leaders see an opportunity.

"Government telling people to do something at a personal level, whether it's washing your hands or using a toilet, is not that effective, but religious leaders have an impact on personal behaviors," said [Sanjay Wijesekera](#), chief of Water, Sanitation, and Hygiene (WASH) for UNICEF.

Wijesekera said festivals like the Ganga Sagar Mela, where millions of people converge and religious leaders preach, are an opportunity because high emotional moments can change people's behavior, whether it's a religious festival or the birth of a child.

At GIWA-India's first major event in the Himalayan town of Rishikesh, India, leaders of Muslim, Hindu, Christian, Sikh and other religions gave passionate speeches that broke taboos by addressing issues including menstrual hygiene and dignity.

"Religious leaders understand the community. They have the incredible gift of communication, they know how to reach people with stories and metaphors, and they can reach people emotionally," Marshall said.

Religious leaders also have greater access to personal and family spheres than government or nonprofit groups, they operate media channels that reach large groups of followers, and they tend to be among first responders in emergencies, according to a UNICEF document of best practices for working with religious groups.

"Working with faith leaders is enabling us to harness collective and powerful voices," said Susan Coates, UNICEF's chief of WASH in India. "Faith leaders, once oriented, can explore social issues that are highly complex ... in a manner that other actors are less successful at."

It's also important to recognize that religious leaders are already involved in development issues, said Marshall.

"They've been involved in environmental protection, care of the poor, care of orphans — pretty much, if you look at it, from AIDS to zebras," Marshall said. "On pretty much any issue, there is (already) a religious engagement historically and in the present."

A religious lens

Marshall said development officials previously ignored religion in part because of assumptions about the separation of church and state and the fact that people aren't learning as much about religious diversity in schools and universities.

But in recent years, U.N. resolutions have promoted interreligious cooperation and created an inter-agency U.N. task force on faith-based organizations. The U.S. government has also created offices in the State Department and other agencies devoted to faith-based partnerships.

“There might have been times when people saw development through secular, government-type institutions, but now it’s clear that we need a much broader range of partners,” said Wijesekera, including faith-based organizations and the private sector.

He cited a new partnership between UNICEF and the World Council of Churches aimed at protecting children’s rights. Other UNICEF partnerships have addressed education, health, nutrition and gender-equality issues.

Religious groups especially have a history of being involved with issues of clean water, said Marshall, because of its spiritual symbolism and use in religious rituals.

“In almost every belief, cleanliness is next to godliness, and water is sacred, to be cherished and preserved,” said Hindu leader HH Pujya Swami Chidanand Saraswati, president of Parmarth Niketan Ashram in Rishikesh, India, and cofounder of GIWA-India.

The religious teaching about cleanliness at Ganga Sagar Mela and other mass outreach events gave followers not just practical information, but “newfound spiritual understanding ... surrounding the importance of toilets as a crucial part of one’s daily cleanliness rituals,” Swami Chidanand said in an email.

Common goals

One mistake some development organizations make in partnering with religious groups is “instrumentalizing” faith leaders, or viewing them as simply a tool, said Marshall.

She cited the example of hand washing, the “single most important activity to improve health. (An idea) might be, ‘Oh, good, let’s get religious leaders to tell everybody to wash their hands.’ That often generates a negative reaction from religious leaders feeling used,” she said.

“You want to have much more of an exchange where you learn from religious leaders ... and engage them in whole strategy.”

NGOs are best equipped to handle technical issues like finding financiers or determining the best place to dig a well, said Marshall, while religious leaders are adept at mobilizing people.

When there is a disconnect over cultural issues, a confrontational, shaming approach is usually futile or counterproductive, according to the UNICEF document, which advises first establishing common ground and shared principles, then building on those to express concerns.

Problematic attitudes or behaviors that are attributed to religion, such as genital mutilation or early marriage, are often based in much older cultural traditions and can be challenged best by

religious leaders themselves, who can clarify that such traditions are out of step with religious teachings, according to the document.

Cleanliness and godliness

The sheer scope of many development issues, including water and sanitation, make partnerships with religious groups essential, said Wijesekera.

“In India you have 600 million people who practice open defecation, and that’s not a small number. You can’t do that village by village. It has to be a social movement that says this is unacceptable,” he said.

And yet, the ability to take a social movement village to village is exactly what WASH aims to do with initiatives such as the Toilet College, toll-free hotlines, and others.

The interfaith nature of the effort is also contributing to peace in a nation torn by religious strife.

“People told me later on that their eyes filled with tears as they witnessed this beautiful showing of togetherness at a traditionally Hindu festival,” said Swami Chidanand.

“The thousands who attended not only came away with a greater understanding of the importance of preserving our water and keeping our surroundings clean, but they also left with a heightened sense of peace, as brothers and sisters of so many faiths joined hands in a mighty vow for WASH for all.”

<http://www.deseretnews.com/article/865650579/How-religious-cooperation-is-leading-to-more-toilets-in-India.html?pg=all>

March 23, 2016

Global Warming’s Terrifying New Chemistry

Our leaders thought fracking would save our climate. They were wrong. Very wrong.

By Bill McKibben
The Nation

Global warming is, in the end, not about the noisy political battles here on the planet’s surface. It actually happens in constant, silent interactions in the atmosphere, where the molecular structure of certain gases traps heat that would otherwise radiate back out to space. If you get the chemistry wrong, it doesn’t matter how many landmark climate agreements you sign or how many speeches you give. And it appears the United States may have gotten the chemistry wrong. Really wrong.

There's one greenhouse gas everyone knows about: carbon dioxide, which is what you get when you burn fossil fuels. We talk about a "price on carbon" or argue about a carbon tax; our leaders boast about modest "carbon reductions." But in the last few weeks, CO₂'s nasty little brother has gotten some serious press. Meet methane, otherwise known as CH₄.

In February, Harvard researchers published [an explosive paper in *Geophysical Research Letters*](#). Using satellite data and ground observations, they concluded that the nation as a whole is leaking methane in massive quantities. Between 2002 and 2014, the data showed that US methane emissions increased by more than 30 percent, accounting for 30 to 60 percent of an enormous spike in methane in the entire planet's atmosphere.

To the extent our leaders have cared about climate change, they've fixed on CO₂. Partly as a result, coal-fired power plants have begun to close across the country. They've been replaced mostly with ones that burn natural gas, which is primarily composed of methane. Because burning natural gas releases significantly less carbon dioxide than burning coal, CO₂ emissions have begun to trend slowly downward, allowing politicians to take a bow. But this new Harvard data, which comes on the heels of other aerial surveys showing big methane leakage, suggests that our new natural-gas infrastructure has been bleeding methane into the atmosphere in record quantities. And molecule for molecule, this unburned methane is much, much more efficient at trapping heat than carbon dioxide.

The EPA insisted this wasn't happening, that methane was on the decline just like CO₂. But it turns out, as some scientists have been insisting for years, the EPA was wrong. Really wrong. This error is the rough equivalent of the New York Stock Exchange announcing tomorrow that the Dow Jones isn't really at 17,000: Its computer program has been making a mistake, and your index fund actually stands at 11,000.

These leaks are big enough to wipe out a large share of the gains from the Obama administration's work on climate change—all those closed coal mines and fuel-efficient cars. *In fact, it's even possible that America's contribution to global warming increased during the Obama years.* The methane story is utterly at odds with what we've been telling ourselves, not to mention what we've been telling the rest of the planet. It undercuts the promises we made at the climate talks in Paris. It's a disaster—and one that seems set to spread.

The Obama administration, to its credit, seems to be waking up to the problem. Over the winter, the EPA began to revise its methane calculations, and in early March, the United States reached an agreement with Canada to begin the arduous task of stanching some of the leaks from all that new gas infrastructure. But none of this gets to the core problem, which is the rapid spread of fracking. Carbon dioxide is driving the great warming of the planet, but CO₂ isn't doing it alone. It's time to take methane seriously.

* * *

To understand how we got here, it's necessary to remember what a savior fracked natural gas looked like to many people, environmentalists included. As George W. Bush took hold of power in Washington, coal was ascendant, here and around the globe. Cheap and plentiful, it was most

visibly underwriting the stunning growth of the economy in China, where, by some estimates, a new coal-fired power plant was opening every week. The coal boom didn't just mean smoggy skies over Beijing; it meant the planet's invisible cloud of carbon dioxide was growing faster than ever, and with it the certainty of dramatic global warming.

So lots of people thought it was great news when natural-gas wildcatters began rapidly expanding fracking in the last decade. Fracking involves exploding the sub-surface geology so that gas can leak out through newly opened pores; its refinement brought online new shale deposits across the continent—most notably the Marcellus Shale, stretching from West Virginia up into Pennsylvania and New York. The quantities of gas that geologists said might be available were so vast that they were measured in trillions of cubic feet and in centuries of supply.

The apparently happy fact was that when you burn natural gas, it releases half as much carbon dioxide as coal. A power plant that burned natural gas would therefore, or so the reasoning went, be half as bad for global warming as a power plant that burned coal. Natural gas was also cheap—so, from a politician's point of view, fracking was a win-win situation. You could appease the environmentalists with their incessant yammering about climate change without having to run up the cost of electricity. It would be painless environmentalism, the equivalent of losing weight by cutting your hair.

It's possible that America's contribution to global warming increased during the Obama years.

And it appeared even better than that. If you were President Obama and had inherited a dead-in-the-water economy, the fracking boom offered one of the few economic bright spots. Not only did it employ lots of people, but cheap natural gas had also begun to alter the country's economic equation: Manufacturing jobs were actually returning from overseas, attracted by newly abundant energy. In his 2012 State of the Union address, Obama declared that new natural-gas supplies would not only last the nation a century, but would create 600,000 new jobs by decade's end. In his 2014 address, he announced that "businesses plan to invest almost \$100 billion in factories that use natural gas," and pledged to "cut red tape" to get it all done. In fact, the natural-gas revolution has been a constant theme of his energy policy, the tool that made his restrictions on coal palatable. And Obama was never shy about taking credit for at least part of the boom. Public research dollars, he said in 2012, "helped develop the technologies to extract all this natural gas out of shale rock—reminding us that government support is critical in helping businesses get new energy ideas off the ground."

Obama had plenty of help selling natural gas—from the fossil-fuel industry, but also from environmentalists, at least for a while. Robert Kennedy Jr., who had enormous credibility as the founder of the Waterkeeper Alliance and a staff attorney at the Natural Resources Defense Council, wrote a paean in 2009 to the "revolution...over the past two years [that] has left America awash in natural gas and has made it possible to eliminate most of our dependence on deadly, destructive coal practically overnight." Meanwhile, the longtime executive director of the Sierra Club, Carl Pope, had not only taken \$25 million from one of the nation's biggest frackers, Chesapeake Energy, to fund his organization, but was also making appearances with the company's CEO to tout the advantages of gas, "an excellent example of a fuel that can be produced in quite a clean way, and shouldn't be wasted." (That CEO, Aubrey McClendon,

apparently killed himself earlier this month, crashing his car into a bridge embankment days after being indicted for bid-rigging.) Exxon was in apparent agreement as well: It purchased XTO Energy, becoming the biggest fracker in the world overnight and allowing the company to make the claim that it was helping to drive emissions down.

For a brief shining moment, you couldn't have asked for more. As Obama told a joint session of Congress, "The development of natural gas will create jobs and power trucks and factories that are cleaner and cheaper, proving that we don't have to choose between our environment and our economy."

* * *

Unless, of course, you happened to live in the fracking zone, where nightmares were starting to unfold. In recent decades, most American oil and gas exploration had been concentrated in the western United States, often far from population centers. When there were problems, politicians and media in these states paid little attention.

The Marcellus Shale, though, underlies densely populated eastern states. It wasn't long before stories about the pollution of farm fields and contamination of drinking water from fracking chemicals began to make their way into the national media. In the Delaware Valley, after a fracking company tried to lease his family's farm, a young filmmaker named Josh Fox produced one of the classic environmental documentaries of all time, *Gasland*, which became instantly famous for its shot of a man lighting on fire the methane flowing from his water faucet.

This reporting helped galvanize a movement—at first town by town, then state by state, and soon across whole regions. The activism was most feverish in New York, where residents could look across the Pennsylvania line and see the ecological havoc that fracking caused. Scores of groups kept up unrelenting pressure that eventually convinced Governor Andrew Cuomo to ban it. Long before that happened, the big environmental groups recanted much of their own support for fracking: The Sierra Club's new executive director, Michael Brune, not only turned down \$30 million in potential donations from fracking companies but came out swinging against the practice. "The club needs to...advocate more fiercely to use as little gas as possible," he said. "We're not going to mute our voice on this." As for Robert Kennedy Jr., by 2013 he was calling natural gas a "catastrophe."

In the end, one of the most important outcomes of the antifracking movement may have been that it attracted the attention of a couple of Cornell scientists. Living on the northern edge of the Marcellus Shale, Robert Howarth and Anthony Ingraffea got interested in the outcry. While everyone else was focused on essentially local issues—would fracking chemicals get in the water supply?—they decided to look more closely at a question that had never gotten much attention: How much methane was invisibly being leaked by these fracking operations?

Natural gas was also cheap—so, from a politician's point of view, fracking was a win-win situation.

Because here's the *unhappy* fact about methane: Though it produces only half as much carbon as coal when you burn it, if you don't—if it escapes into the air before it can be captured in a pipeline, or anywhere else along its route to a power plant or your stove—then it traps heat in the atmosphere much more efficiently than CO₂. Howarth and Ingraffea began producing a series of papers claiming that if even a small percentage of the methane leaked—maybe as little as 3 percent—then fracked gas would do *more* climate damage than coal. And their preliminary data showed that leak rates could be at least that high: that somewhere between 3.6 and 7.9 percent of methane gas from shale-drilling operations actually escapes into the atmosphere.

To say that no one in power wanted to hear this would be an understatement. The two scientists were roundly attacked by the industry; one trade group called their study the “Ivory Tower’s latest fact-free assault on shale gas exploration.” Most of the energy establishment joined in. An MIT team, for instance, had just finished an industry-funded report that found “the environmental impacts of shale development are challenging but manageable”; one of its lead authors, the ur-establishment energy expert Henry Jacoby, described the Cornell research as “very weak.” One of its other authors, Ernest Moniz, would soon become the US secretary of energy; in his nomination hearings in 2013, he lauded the “stunning increase” in natural gas as a “revolution” and pledged to increase its use domestically.

The trouble for the fracking establishment was that new research kept backing up Howarth and Ingraffea. In January 2013, for instance, aerial overflights of fracking basins in Utah found leak rates as high as 9 percent. “We were expecting to see high methane levels, but I don’t think anybody really comprehended the true magnitude of what we would see,” said the study’s director. But such work was always piecemeal, one area at a time, while other studies—often conducted with industry-supplied data—came up with lower numbers.

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That’s why last month’s Harvard study came as such a shock. It used satellite data from across the country over a span of more than a decade to demonstrate that US methane emissions had spiked 30 percent since 2002. The EPA had been insisting throughout that period that methane emissions were actually falling, but it was clearly wrong—on a massive scale. In fact, emissions “are substantially higher than we’ve understood,” EPA Administrator Gina McCarthy admitted in early March. The Harvard study wasn’t designed to show why US methane emissions were growing—in other parts of the world, as new research makes clear, cattle and wetlands seem to be causing emissions to accelerate. But the spike that the satellites recorded coincided almost perfectly with the era when fracking went big-time.

To make matters worse, during the same decade, experts had become steadily more worried about the effects of methane in any quantity on the atmosphere. Everyone agrees that, molecule for molecule, methane traps far more heat than CO₂—but exactly how much wasn’t clear. One reason the EPA estimates of America’s greenhouse-gas emissions showed such improvement was because the agency, following standard procedures, was assigning a low value to methane and measuring its impact over a 100-year period. But a methane molecule lasts only a couple of decades in the air, compared with centuries for CO₂. That’s good news, in that methane’s effects are transient—and very bad news because that transient but intense effect happens right now,

when we're breaking the back of the planet's climate. The EPA's old chemistry and 100-year time frame assigned methane a heating value of 28 to 36 times that of carbon dioxide; a more accurate figure, says Howarth, is between 86 and 105 times the potency of CO₂ over the next decade or two.

If you combine Howarth's estimates of leakage rates and the new standard values for the heat-trapping potential of methane, then the picture of America's total greenhouse-gas emissions over the last 15 years looks very different: Instead of peaking in 2007 and then trending downward, as the EPA has maintained, our combined emissions of methane and carbon dioxide have gone steadily and sharply up during the Obama years, Howarth says. We closed coal plants and opened methane leaks, and the result is that things have gotten worse.

Since Howarth is an outspoken opponent of fracking, I ran the Harvard data past an impeccably moderate referee, the venerable climate-policy wonk Dan Lashof. A UC Berkeley PhD who has been in the inner circles of climate policy almost since it began, Lashof has helped write reports from the Intergovernmental Panel on Climate Change and craft the Obama administration's plan to cut coal-plant pollution. The longtime head of the Clean Air Program at the Natural Resources Defense Council, he is now the chief operations officer of billionaire Tom Steyer's NextGen Climate America.

We closed coal plants and opened methane leaks, and the result is that things have gotten worse.

"The Harvard paper is important," Lashof said. "It's the most convincing new data I have seen showing that the EPA's estimates of the methane-leak rate are much too low. I think this paper shows that US greenhouse-gas emissions *may* have gone up over the last decade if you focus on the combined short-term-warming impact."

Under the worst-case scenario—one that assumes that methane is extremely potent and extremely fast-acting—the United States has actually slightly increased its greenhouse-gas emissions from 2005 to 2015. That's the chart below: the blue line shows what we've been telling ourselves and the world about our emissions—that they are falling. The red line, the worst-case calculation from the new numbers, shows just the opposite.

Lashof argues for a more moderate reading of the numbers (calculating methane's impact over 50 years, for instance). But even this estimate—one that attributes less of the methane release to fracking—wipes out as much as three-fifths of the greenhouse-gas reductions that the United States has been claiming. This more modest reassessment is the yellow line in the chart below; it shows the country reducing its greenhouse-gas emissions, but by nowhere near as much as we had thought.

The lines are doubtless not as smooth as the charts imply, and other studies will provide more detail and perhaps shift the calculations. But any reading of the new data offers a very different version of our recent history. Among other things, either case undercuts the statistics that America used to negotiate the Paris climate accord. It's more upsetting than the discovery last year that China had underestimated its coal use, because China now appears to be cutting back aggressively on coal. If the Harvard data hold up and we keep on fracking, it will be nearly

impossible for the United States to meet its promised goal of a 26 to 28 percent reduction in greenhouse gases from 2005 levels by 2025.

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One obvious conclusion from the new data is that we need to move very aggressively to plug as many methane leaks as possible. “The biggest unfinished business for the Obama administration is to establish tight rules on methane emissions from existing [wells and drill sites],” Lashof says. That’s the work that Obama and Canadian Prime Minister Justin Trudeau promised to tackle at their conclave in March—although given the time it takes for the EPA to draft new rules, it will likely be long after Obama’s departure before anything happens, and the fossil-fuel industry has vowed to fight new regulations.

Also, containing the leaks is easier said than done: After all, methane is a gas, meaning that it’s hard to prevent it from escaping. Since methane is invisible and odorless (utilities inject a separate chemical to add a distinctive smell), you need special sensors to even measure leaks. Catastrophic blowouts like the recent one at Porter Ranch in California pour a lot of methane into the air, but even these accidents are small compared to the total seeping out from the millions of pipes, welds, joints, and valves across the country—especially the ones connected with fracking operations, which involve exploding rock to make large, leaky pores. A Canadian government team examined the whole process a couple of years ago and came up with despairing conclusions. Consider the cement seals around drill pipes, says Harvard’s Naomi Oreskes, who was a member of the team: “It sounds like it ought to be simple to make a cement seal, but the phrase we finally fixed on is ‘an unresolved engineering challenge.’ The technical problem is that when you pour cement into a well and it solidifies, it shrinks. You can get gaps in the cement. All wells leak.”

With that in mind, the other conclusion from the new data is even more obvious: We need to stop the fracking industry in its tracks, here and abroad. Even with optimistic numbers for all the plausible leaks fixed, Howarth says, methane emissions will keep rising if we keep fracking.

“It ought to be simple to make a cement seal, but the phrase we finally fixed on is ‘an unresolved engineering challenge.’” —Naomi Oreskes

And if we didn’t frack, what would we do instead? Ten years ago, the realistic choice was between natural gas and coal. But that choice is no longer germane: Over the same 10 years, the price of a solar panel has dropped at least 80 percent. New inventions have come online, such as air-source heat pumps, which use the latent heat in the air to warm and cool houses, and electric storage batteries. We’ve reached the point where Denmark can generate 42 percent of its power from the wind, and where Bangladesh is planning to solarize every village in the country within the next five years. We’ve reached the point, that is, where the idea of natural gas as a “bridge fuel” to a renewable future is a marketing slogan, not a realistic claim (even if that’s precisely the phrase that Hillary Clinton used to defend fracking in a debate earlier this month).

One of the nastiest side effects of the fracking boom, in fact, is that the expansion of natural gas has undercut the market for renewables, keeping us from putting up windmills and solar panels at

the necessary pace. Joe Romm, a climate analyst at the Center for American Progress, has been tracking the various economic studies more closely than anyone else. Even if you could cut the methane-leakage rates to zero, Romm says, fracked gas (which, remember, still produces 50 percent of the CO₂ level emitted by coal when you burn it) would do little to cut the world's greenhouse-gas emissions because it would displace so much truly clean power. A Stanford forum in 2014 assembled more than a dozen expert teams, and their models showed what a drag on a sustainable future cheap, abundant gas would be. "Cutting greenhouse-gas emissions by burning natural gas is like dieting by eating reduced-fat cookies," the principal investigator of the Stanford forum explained. "If you really want to lose weight, you probably need to avoid cookies altogether."

Of course, if you're a cookie company, that's not what you want to hear. And the Exxons have a little more political juice than the Keeblers. To give just one tiny example, during his first term, Obama's then-deputy assistant for energy and climate change, Heather Zichal, headed up an interagency working group to promote the development of domestic natural gas. The working group had been formed after pressure from the American Petroleum Institute, the chief fossil-fuel lobbying group, and Zichal, in a talk to an API gathering, said: "It's hard to overstate how natural gas—and our ability to access more of it than ever—has become a game changer, and that's why it's been a fixture of the president's 'All of the Above' energy strategy." Zichal left her White House job in 2013; one year later, she took a new post on the board of Cheniere Energy, a leading exporter of fracked gas. In the \$180,000-a-year job, she joined former CIA head John Deutch, who once led an Energy Department review of fracking safety during the Obama years, and Vicky Bailey, a commissioner of the Federal Energy Regulatory Commission under Bill Clinton. That's how it works.

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There was one oddly reassuring number in the Harvard satellite data: The massive new surge of methane from the United States constituted somewhere between 30 and 60 percent of the global growth in methane emissions this past decade. In other words, the relatively small percentage of the planet's surface known as the United States accounts for much (if not most) of the spike in atmospheric methane around the world. Another way of saying this is: We were the first to figure out how to frack. In this new century, we're leading the world into the natural-gas age, just as we poured far more carbon into the 20th-century atmosphere than any other nation. So, thank God, now that we know there's a problem, we could warn the rest of the planet before it goes down the same path.

Except we've been doing exactly the opposite. We've become the planet's salesman for natural gas—and a key player in this scheme could become the next president of the United States. When Hillary Clinton took over the State Department, she set up a special arm, the Bureau of Energy Resources, after close consultation with oil and gas executives. This bureau, with 63 employees, was soon helping sponsor conferences around the world. And much more: Diplomatic cables released by WikiLeaks show that the secretary of state was essentially acting as a broker for the shale-gas industry, twisting the arms of world leaders to make sure US firms got to frack at will.

To take just one example, [an article in *Mother Jones*](#) based on the WikiLeaks cables reveals what happened when fracking came to Bulgaria. In 2011, the country signed a \$68 million deal with Chevron, granting the company millions of acres in shale-gas concessions. The Bulgarian public wasn't happy: Tens of thousands were in the streets of Sofia with banners reading Stop Fracking With Our Water. But when Clinton came for a state visit in 2012, she sided with Chevron (one of whose executives had bundled large sums for her presidential campaign in 2008). In fact, the leaked cables show that the main topic of her meetings with Bulgaria's leaders was fracking. Clinton offered to fly in the "best specialists on these new technologies to present the benefits to the Bulgarian people," and she dispatched her Eurasian energy envoy, Richard Morningstar, to lobby hard against a fracking ban in neighboring Romania. Eventually, they won those battles—and today, the State Department provides "assistance" with fracking to dozens of countries around the world, from Cambodia to Papua New Guinea.

So if the United States has had a terrible time tracking down and fixing its methane leaks, ask yourself how it's going to go in Bulgaria. If Canada finds that sealing leaks is an "unresolved engineering challenge," ask yourself how Cambodia's going to make out. If the State Department has its way, then in a few years Harvard's satellites will be measuring gushers of methane from every direction.

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Of course, we can—and perhaps we should—forgive all that past. The information about methane is relatively new; when Obama and Clinton and Zichal started backing fracking, they didn't really know. They could have turned around much earlier, like Kennedy or the Sierra Club. But what they do now will be decisive.

There are a few promising signs. Clinton has at least tempered her enthusiasm for fracking some in recent debates, listing a series of preconditions she'd insist on before new projects were approved; Bernie Sanders, by contrast, has called for a moratorium on new fracking. But Clinton continues to conflate and confuse the chemistry: Natural gas, she said in a recent position paper, has helped US carbon emissions "reach their lowest level in 20 years." It appears that many in power would like to carry on the fracking revolution, albeit a tad more carefully.

Indeed, just last month, Cheniere Energy shipped the first load of American gas overseas from its new export terminal at Sabine Pass in Louisiana. As the ship sailed, Cheniere's vice president of marketing, Meg Gentle, told industry and government officials that natural gas should be rebranded as renewable energy. "I'd challenge everyone here to reframe the debate and make sure natural gas is part of the category of clean energy, not a fossil-fuel category, which is viewed as dirty and not part of the solution," she said. A few days later, Exxon's PR chief, writing in the *Los Angeles Times*, boasted that the company had been "instrumental in America's shale gas revolution," and that as a result, "America's greenhouse gas emissions have declined to levels not seen since the 1990s."

The new data prove them entirely wrong. The global-warming fight can't just be about carbon dioxide any longer. Those local environmentalists, from New York State to Tasmania, who have managed to enforce fracking bans are doing as much for the climate as they are for their own

clean water. That's because fossil fuels are the problem in global warming—and fossil fuels don't come in good and bad flavors. Coal and oil and natural gas have to be left in the ground. All of them.

Bill McKibben is the author of a dozen books, most recently *The Bill McKibben Reader*, an essay collection. A scholar in residence at Middlebury College, he is co-founder of 350.org, the largest global grassroots organizing campaign on climate change.

<http://www.thenation.com/article/global-warming-terrifying-new-chemistry/>

March 24, 2016

Getting the Next Generation to Fall in Love with the Planet: An Interview with Dan Siegel

By Andrew Revkin
Garrison Institute

The first 25 years of my career as a journalist focused on ways to foster sustainable human progress centered on science illuminating the biological and geophysical interplay of people and the planet. But over and over, I came to realize that decisions about addressing, or ignoring, environmental risks were shaped more by communities' basic needs and individuals' perceptions than basic scientific "facts."

That understanding led me increasingly to consult with behavioral and social scientists—and even philosophers and theologians—in trying to gauge the merits of different policies or individual choices. One such person is Dan Siegel, who's blended training in pediatrics and psychiatry with decades of experience and research and produced a body of insights into ways, through mindful attention to one's self and the rest of the world, to expand the mind—literally. I met him at one of the [Climate, Mind and Behavior conferences](#) at the Garrison Institute years ago and have been probing his books and consulting with him ever since. ([Watch Dan Siegel's Climate, Mind and Behavior videos here.](#))

We recently had a chance to converse about our shared focus on how to foster individual, social, and environmental well-being amid today's fast-changing landscape of ways to share and shape valuable ideas—along with insults and animal videos.

Andrew Revkin: How are all of these new ways we're communicating with each other changing not only our relationships with each other, but with our whole environment and the planet?

Dan Siegel: On the one hand, there's this idea that no one is taking the time they probably need to in order to slow down and be connected to another person. There's a lot of concern about how that is influencing our present-day experience and also about what that will do for the new generation. Sherry Turkle writes about this, and I think we can see in many kids a kind of thinness of interaction where they're not spending the kind of face-to-face time that you might want them to.

How does this relate to the environment and our relationship with the planet? I don't know if there are any studies on that, but it's certainly an interesting question, because the further away we get from feeling what's going on inside of ourselves, the further away we get also from feeling like this home we live in is real. It starts to feel like more of like an artificial thing, almost a computer graphic that we live in.

When you bring people out into nature, they start experiencing awe. And through the experience of awe, we connect with other people and the world around us. So, if awe is not happening in the digital world that would decrease our ability to reach out to other people and the natural world.

Revkin: I've been exploring this in different ways, one of which was examining whether there's a hybrid approach to these challenges. When my son was around eight or nine, he was with me in the middle of a very suburban part of Florida, visiting his grandparents, and we went in a little rowboat. There was a little, tiny nook of mangroves. He had my video camera. He was shooting a little documentary, very funky and kid-like, swinging the camera back and forth.

But then we went to an area where there were some herons nesting in the mangroves, deep inside the shrubbery. I couldn't see them at all, but he had the capacity to see them. He zoomed in and got this really cool moment of seeing these baby herons. I posted it on YouTube and put it on my blog. You could hear his voice when he zoomed in and caught the image of the bird. It was a great moment, where you could hear his breath. He had that awe moment you were just talking about. But he was then sharing it digitally. He told the story in a way that was facilitated by digital media.

Siegel: If those stories can evoke this sense of connecting to something larger than our personal, separate selves, I think that's just fantastic. That's going to be the challenge, I think, for all of us in the immediate future.

I remember once talking to a photographer who would go out to these wild places, like the North Pole. I asked him, "What are you feeling when you do that? Not just what it's like to be on the North Pole, but what is your drive?" He said, "If we don't get the next generation to fall in love with our planet, there's no way that they're going to take any kind of time to protect it, because you only protect something you love." That's why he put together his photographs. When I think about the Dot Earth work you're doing, Andrew, it's like inviting people to fall in love with our world.

Revkin: Yes, but in a world with limited resources—or in countries with limited resources—what can we do? Especially in areas where you have the high numbers of educated youth, but not a lot of opportunity, what tools or mechanisms or practices might be beneficial?

Siegel: Well, if we start with the premise that you really need to be in love with what you're going to protect, then it needs to be a top priority to get adolescents in nature more. Otherwise they're going to think, for example, that food actually is created in a supermarket. And so they'll say, "Well, my market's okay." It may seem simple, but it's the hidden unknown of all of this, that kids are just not feeling like the planet is really something that's real. So that's the first layer of this.

Another layer is that a lot of us feel a sense of helplessness. And then all you do is go through this emotional set of reactions, which are studied in brain scanners. If you feel helpless, then all you do is you go, “Well, this feeling is really terrible. There’s nothing I can do about it, so I’m going to change my focus of attention and not pay attention to this thing that makes me feel so helpless. Let me just go get a beer and go to watch TV and forget about this stuff.” I think that’s a pathway that’s understandable but preventable.

Revkin: Here’s another aspect of what you were just laying out: In the new media environment we’re in—which is no longer the Walter Cronkite, communitarian, authoritative giver of information—but this sort of landscape where if you put in the words “global warming” in Google News, you’ll find everything from “it’s a hoax” to “it’s the end of the world.”

One thing I’ve been trying to teach students at Pace University, is some methods for navigating so you become, to some extent, your own authority. Or at least you can find, amid all that noise, where reality lies. That’s kind of a first step towards having the capacity to be mindful and compassionate and instructive.

We have this built-in bias toward drama, I think. That’s what catches our attention, along with funny dog videos. So much of what’s out there is trying to get our attention, meaning it’s overstated. This is as true for BBC and *The New York Times* as everyone else. To grab attention now, there’s a torquing towards the caricature. In some ways, a sustainability mechanism now is to develop the capacity to know what’s real. We had it so easy in the old days. We didn’t have to think. It was just we opened *The New York Times* and watch Walter Cronkite. Cronkite would literally say, “That’s the way it is.”

Siegel: To do this we’re going to need to have inner reflection to understand the way the mind works. This will allow us to respond to the call of the day, which is how to keep yourself aware and then also allow yourself to feel the equanimity so that you don’t burn out.

Revkin: One exercise I’ve been doing with my students in this course I teach—it’s basically a course in online communication—is to have them think about how they knew something that day. How did it get into their consciousness? Trace it back. Where did this factoid come from?

This is more about news information than about some of the things you were just talking about feeling. But I think it gets people into the mode of stopping and thinking about how they thought something. Did the Yankees win or lose? How did I learn that fact today? Where did it come from? Tracing these things back to their source is helpful. It’s interesting. It’s a way to learn how the web works. Someone tweeted something, and that was blogged by someone else, and then it goes somewhere else. You can actually trace things pretty far back if you take a few minutes. It’s a way to become aware of how ideas are moving around.

It would be interesting to do that with a feeling the same way. I’m bummed out. Where did that come from? I assume that’s partially what some of the practices you do accomplish.

Siegel: What we would say about that from the field I work in, interpersonal neurobiology, is that this backtracking practice you’re doing, is really a form of what you would call integration.

Integration is how we make sense of our lives. You're linking different aspects of your life across time, different aspects of your relational life, and even different aspects of your brain together. And that linkage of differentiated parts across all those levels, not just in the brain, is called integration.

Integration creates, basically, equanimity. It creates a sense of well-being. It creates all sorts of improvements in the way your physiology works.

This relates to something I write about at the end of the *Brainstorm*, which is the notion of a "mwe." Mwe is the combination of an individual "me," but you're also equally, just differentially, a connected person. You're connected to other people, your family, your friends, your teachers, the larger human family—in fact, the family of all living beings, the whole Earth. These relational connections are part of a "we."

To embrace the two of them, you could say "mwe." And what's been so interesting about that is that it helps resolve a kind of conflict where you can think it's either one or the other. It doesn't have to be one or the other. An integrated identity would be both a "me" and a "we." It allows you to enjoy this body and really love the world in which you live.

Revkin: Kind of a hybrid approach to things. One of the things you pursued or explained when I saw you at the Garrison was something you described as the "we map." Two aspects of that struck me as valuable to a broader sustainability discussion. One is, maybe with intentionality, that's where you could see the upside of social networks online. There are social networks that are physical, of course, but the idea of the "we map" seems compatible with a constructive use of social media to build that sense of you that's not within your body. That's your sense of community.

I think there's untapped potential to use these tools to have a bigger potential of "we-ness," to make sure that ideas are shared and shaped where they're needed most, or to build collaborative conversations. But there are so many competing uses of the same portals, such as selling stuff and saying mean things. It's hard to know which will win out.

Siegel: There's huge potential for it. If we can start to expand our conversations about what the self is, then I think people will be using all of their incredible creative potential, especially the adolescents coming up, to realize that you can find all sorts of ways of changing the relationality that we have to the planet to make it more robust for the well-being of the whole community. If you just think about this atmosphere we all share, the air we breathe, the water we drink, the soil that we share—all of these things—and realize the shared nature of our living experience.

That's something you can embed right into our vocabulary in media, in blogs, in schools, what teachers learn and what parents can do. I think it's going to be a win/win situation. I think people are going to feel better, because it's really more about the truth. And all of the studies show a sense of well-being comes when you're really a part of something larger than your private bodily self. We just need to work collaboratively to make it happen.

Revkin: One other thing that comes to mind is the time I spent at the Vatican in 2014 at the meeting that preceded the encyclical and then writing about the pope's involvement in the climate question. It was interpreted in many different ways, but the way that I found was most salient and powerful was essentially he has made it safe to think of sustainability—including equity and environmental and climate safety—to bring more than numbers into this arena.

In the climate arena, I think for too long, people have used numbers like “two degrees” or “350” to give a kind of mechanistic determinant to what needs to be done, when, in fact, when you look behind those numbers, it really is much more about choices. Our choices are moral and their functions are feelings as much as facts. So I think what you're describing sort of fits with the idea that the mechanistic, quantitative approach to problems like climate change or sustainable development generally aren't going to get you there alone.

Siegel: Absolutely. I don't know how to say this without sounding too optimistic, but I think there's a huge potential for good out of this sense of urgency, where people put their divisions down, where we start realizing: This is the time to do it.

Andrew Revkin writes the [Dot Earth](#) environmental blog for The New York Times 'Opinion Pages'. He is also the Senior Fellow for Environmental Understanding at Pace University's Pace Academy for Applied Environmental Studies.

<https://www.garrisoninstitute.org/blog/getting-next-generation-fall-love-planet/>

March 24, 2016

My Lent with Pulse Pledge

By Julie Hall, Youth Speak News
The Catholic Register

I took the Pulse Pledge during Lent and found myself reflecting on how something so small could actually make a difference.

Coinciding with Pope Francis' environmental encyclical *Laudato Si'*, the United Nations declared 2016 as the International Year of Pulses. Pulses, consisting of dry peas, chickpeas, lentils and beans, have many benefits. The UN, along with many researchers, believe that if everyone pledges to consume pulses at least one day a week, then the world will notice a significant improvement in our environment.

On my own personal journey with pulses, things started out rough. I found myself very hesitant to take on such a challenge, however the benefits made me feel as though it was worth a shot.

I started out one morning by making myself a berry protein smoothie with pea protein in it. This recipe gave me the conviction to carry on with my pledge. It was actually really good and I found it gave me a great boost of energy before heading off to work for the day. I also tried lentil

lasagna, chickpea quiche and even a mason jar salad for lunch one day. Not only did I enjoy trying out these new recipes, I also found myself feeling content with the change I was making to help the environment.

I found myself constantly thinking about how such a small change in my life could actually have an impact on the world around me.

The list of benefits associated with pulses is actually quite impressive. To begin with, these superfoods have an extreme nutrition value and are always in season because of their long shelf-life. Being great servings of iron, potassium, fibre, protein, folate and antioxidants, along with being sodium-, gluten- and cholesterol-free, gives these four foods a lasting impact on our bodies.

Pulses are one of the most cost-effective proteins around. They can be enjoyed throughout the world at an affordable price. Pulse crops are natural fertilizers, meaning they actually enrich the ground in which they grow and reduce the need for harmful chemicals. Capable of growing in some of the harshest environments, they also have one of the lowest carbon footprints of any food group. As if this was not enough, these crops also require little to no irrigation, conserving plenty of water.

Pope Francis says in *Laudato Si'* that it is the little things, when done together, which turn into big victories. The simple things, turning the unnecessary lights off, using public transport or car-pooling, even changing your diet on a weekly basis.

Needless to say, the attention of the world's population is desperately being grabbed by influential people all over the globe.

After my experience with pulses, I have decided to take the pledge as often as possible. The idea of making a difference in the world is enough motivation for me. With the UN declaring this the year of pulses, all of our contributions combined will surely have an impact on the world around us and the future which it holds.

"Education in environmental responsibility," stated Pope Francis in *Laudato Si'*, "can encourage ways of acting which directly and significantly affect the world around us."

The time has come for all of us to stand up against the destruction of our environment and join together in this simple task. It does not have to be a difficult one. From protein-enriched smoothies to peanut butter hummus and chickpea salad, the pulse pledge can certainly be rewarding in its versatility and in battling environmental disaster.

Remain hopeful throughout this mission. Pope Francis reminds us once again in *Laudato Si'* that, "We are able to take an honest look at ourselves, to acknowledge our deep dissatisfaction, and to embark on new paths to authentic freedom."

(Hall, 17, is a candidate for first-year social service work at Humber College in Toronto.)

March 24, 2016

Sri Lankan Way of the Cross carries environmental message

Through devotion Catholics protest against controversial port project

UCA News

Negombo, Sri Lanka - Catholics in Sri Lanka conducted a Way of the Cross devotional event as part of a protest against a controversial port project in Colombo.

About four hundred Catholics, including priests and nuns, attended the Way of the Cross event in the city of Negombo, March 22 and urged the government to stop the US\$1.4 billion Colombo Port City project and protect the environment.

The Chinese-backed project was suspended in March last year due to regulatory and environmental [concerns](#). The government announced this month that the project would resume.

Father Sarath Iddamalgoda from Colombo Archdiocese, said the project would damage the maritime environment, especially fish breeding grounds. He said it also threatens the livelihoods of [local fishermen](#).

"By destroying the environment, the creation of God is harmed," said Fr. Iddamalgoda.

"Those who participated in the Way of the Cross were really inspired by the teaching of Pope Francis on the environment," he said.

"They reflected how they can practically see the love of God through the environment."

In the pope's June encyclical on the environment, *Laudato si'*, the pontiff pointed out the connection between environmental destruction and unjust economic and political policies that penalize the poor.

Nimalee Fernando, a parishioner from Munnakkaraya, said those attending the Way of the Cross shared on each station about man-made disasters that were brought about through the destruction of the environment.

She said that current Sri Lankan Prime Minister Ranil Wickremesinghe had promised to halt the project during his electioneering before coming to power. A promise that the prime minister has been unable to keep, said Fernando.

It is feared that the port's construction will also displace about 50,000 families living on the coast.

The Way of the Cross is a traditional part of [Lent](#) for Sri Lankan Catholics and it helps to reflect and find inspiration to change their life for the better.

<http://www.ucanews.com/news/sri-lankan-way-of-the-cross-carries-environmental-message/75581>

March 27, 2016

Walking the length of the river: Spiritual journey calls attention to contamination of the Minnesota River

By Tom Cherveney
West Central Tribune

MONTEVIDEO — Ask Sharon Day why she and others are walking the length of the Minnesota River carrying a copper vessel holding water from its source, and her answer begins like this:

“In the spiritual work of the Ojibwe people the women are responsible for the water.”

It’s a responsibility that has led her to walk the length of many rivers, the Mississippi River, the St. Louis and the Ohio River among them, as well as around Lake Superior.

Day is now leading a group of indigenous women and men — joined by other volunteers along the way — who are carrying a vessel of water from Big Stone Lake to the Minnesota River’s confluence with the Mississippi River at Fort Snelling, a distance of more than 330 miles. Their journey began Friday at Big Stone Lake, started in snow and sleet in Appleton on Saturday, and continued under much friendlier skies on Sunday as they made their way along County Road 15 in Renville County.

They expect to reach Fort Snelling by Friday.

She is supported on this journey by Dakota members of the Upper and Lower Sioux communities, as well as volunteers from organizations such as Clean Up our River Environment and the Land Stewardship Project, organic farmers and other residents of the river valley.

“A whole rainbow color of people,” said Day as she thumbed through her journal holding the names of the 25 who had joined the walk by the time it crossed the Chippewa River on Saturday afternoon in Montevideo.

Like her previous journeys, this one is intended first to pray to the spirit of the water and to honor the river and water as a living being, said Day.

“When we walk that is who we are talking to, we are praying. We are telling that water in the songs we sing, our petitions say to the water in our language: We love you. We are grateful to you. We respect you and also ask for forgiveness,” said Day.

The journey is also intended to call attention to the contamination in the Minnesota River.

“Minnesotans do not want to talk about the elephant in the living room and that is the non-point sources of pollution, and that is agricultural runoff,” said Day.

She chose the Minnesota River for this year’s walk after reading about studies identifying the impairment of waters throughout southwestern Minnesota.

The MNiSota River (cloudy tinted waters to the Dakota) holds historic and cultural significance to the Dakota people, organizers of the walk also note.

Day was involved with the effort in the late 1990s to protect the Coldwater Spring from the widening of Minnesota Highway 55 in the Twin Cities. After the controversial project went forward, she said an elder asked her: “What will you do for the water?”

Her answer has been to join and organize walks honoring the water. She was one of only six who completed the entire 1,700 mile walk the length of the Mississippi River in 2013. She joined Josephine Mandamin, also an Ojibwe elder, on her 1,555 journey around Lake Superior.

Day’s most difficult walk was the 2011 Mother Earth Walk. She carried water from Gulfport, Mississippi, to Lake Superior. For the first 10 days, there were only three walkers to share the burden.

“Physically and emotionally and mentally, very challenging,” she said.

It was also enlightening. “If your motivation is a spiritual one you can really do anything,” she said.

She began visiting communities along the Minnesota River last year to organize this year’s walk. This one has not lacked for support. The water must be kept in continuous motion, so walkers take turns carrying it while allowing others to rest.

At the end of each day, a ceremony is performed before the night’s rest.

There is an urgency in all of this for Day. Her people’s teaching holds that in the seventh generation all of the people on Turtle Island- the United States - “have to move forward in peace if we are to survive,” she said.

When they reach Fort Snelling on April 1, the water in the vessel will be rejoined with the river.

For more information, or to follow the progress of the walk, visit: www.nibiwalk.org.

<http://www.wctrib.com/news/region/3996065-walking-length-river-spiritual-journey-calls-attention-contamination-minnesota#>

March 30, 2016

The Environmentalist Monk Who Inspired Pope Francis

By Nick Fouriezos
OZY

Browsing through a New York City bookstore in early 1941, influential editor Robert Giroux bumped into Thomas Merton, an old college pal from his days on *The Columbia Review*. Merton told Giroux that *The New Yorker* wanted him to write a piece about Gethsemani, a Trappist monastery in Kentucky where he had “made a retreat.”

“This revelation stunned me,” Giroux recounted, because Merton had never been particularly religious. When Columbia professor Mark Van Doren heard that Merton had joined the monastery, he feared the young man’s literary career was over. “He’s leaving the world,” Van Doren remarked. “I don’t believe we’ll ever hear another word from him.”

We are in the world and part of it and we are destroying everything because we are destroying ourselves....

But he needn’t have worried. Merton went on to become a prolific poet and author, famous in the 1950s for his probing thoughts on social justice and pacifism. The Catholic [monk](#) traveled the globe, exploring Zen Buddhism in Sri Lanka and even meeting with the Dalai Llama in India. Despite adopting the cowl, it turned out that Merton didn’t leave the world at all — and was in fact very worldly with his environmental views long before others.

Merton’s most enduring work, a 1948 autobiography entitled *The Seven Storey Mountain*, won critical acclaim for making contemplative life enticing. But today his writings are being reexamined for their forward-thinking look at climate [change](#). Last September, his work even got a papal plug: [Pope Francis](#), in urging U.S. lawmakers to join other nations in solving global warming, described Merton as “a thinker who challenged the certitudes of his time.”

Merton was a monk for two decades before channeling his inner tree-hugger. It was the early 1960s, with Vietnam, the Cold War and civil rights very much on everyone’s mind. But *climate change*, a term yet to be coined, was not.

In reading *Silent Spring*, by Rachel Carson, which told the stirring story of how pesticide abuse was killing off birds and poisoning soil, Merton was mortified. The same book was later credited by Jimmy Carter and Al Gore for ushering in our modern conservation consciousness. “Someone will say: you worry about birds: why not worry about people?” Merton wrote in his journal. “I worry about *both* birds and people. We are in the world and part of it and we are destroying everything because we are destroying ourselves....”

It proved “an epiphanic event,” writes Monica Weis, author of *The Environmental Vision of Thomas Merton*, and the cloistered clergy member responded by doing what he did best —

writing — first with a congratulatory letter to Carson, and second through poetry. “I have become light/Bird and wind/My leaves sing/I am earth, earth,” he wrote.

Merton’s first public discussion of nonviolence to the environment was fairly controversial in a faith where mass — not frolicking in the woods — is seen as the highest form of worship. But Weis argues that Merton’s love of nature started earlier. Born in France to an American Quaker artist mother and a landscape-painting father from New Zealand, Merton grew up agnostic, once telling a Catholic couple that all religions “lead to God, only in different ways.” Though he later converted and discovered his priestly calling as a 24-year-old doctoral student, he maintained an inherent compassion for alternative ways of thinking.

A firm opponent of nuclear warfare, Merton believed the use of outsize weaponry to exterminate garden pests stemmed from the same sin as the outsize decision to bomb Hiroshima and Nagasaki — even if the side effects hurt innocent bystanders, or ourselves. “To make this seem ‘reasonable’ we go to some lengths to produce arguments that our steps are really ‘harmless,’ ” he concluded. Merton’s fusion of devout conservatism and environmentalism may seem odd, given the long-standing political debate over climate change, but the supposed conflict of faith and reason is misleading, suggests Sophia Newman, a former environmental fellow at the International Thomas Merton Society. “The right wing elsewhere is not [denying global warming], and neither are religious people, really,” she says. “It’s a uniquely American phenomenon.”

In 1965, Merton wrote “this is wonderful!” in his journal, making note that a guest to the monastery mentioned new eco-friendly protections in the Hebrides. “In some ways, he may seem naive,” Thomas Merton Center Director Paul Pearson says, and yet “from the walls of an enclosed monastery, he had this amazing awareness of what was going on.”

In an essay that same year — five years before the Environmental Protection Agency was created, and three years before his own death — Merton wrote: “The silence of the forest is my bride,” and yet, “There is also the non-ecology, the destructive unbalance, poisoned ... by fallout, by exploitation.”

<http://www.ozy.com/flashback/the-environmentalist-monk-who-inspired-pope-francis/67179>

March 30, 2016

Calls for Billions of People to Plant Billions of Trees

By John J. Berger, Energy and environmental policy expert
Huffington Post

“At first, I thought I was fighting to save rubber trees, then I thought I was fighting to save the Amazon rainforest. Now I realize I am fighting for humanity.”
— Chico Mendes, Martyred Brazilian environmentalist

Diana Beresford-Kroeger appears to be following the dictum, “Make no little plans.” The 71-year-old self-described “renegade scientist” has a plan to put everyone on Earth to work planting trees. Her “Bioplan” calls on every able-bodied person to plant a tree a year for six years to bring back the world’s lost forests.

Her work was the inspiration for a recent day-long, “[Call of the Forest: Water, Climate, Spirit](#)” conference attended by more than 200 people in the Northern California seaside hamlet of Point Reyes. The event featured a special preview of Beresford-Kroeger’s forthcoming feature film, *Call of the Forest: The Forgotten Wisdom of Trees*, inspired by her book, *The Global Forest*.

Her [website](#) calls the documentary, an integral part of her, “personal mission to educate 7 billion people about the trees outside their doors.” When completed in the fall, it will be accompanied by an extensive app to provide people with details about how and where to plant appropriate trees for their localities.

The film highlights forests’ importance for human welfare and for the sustenance of other ecosystems and species. Apart from the usual story of how forests purify the air and provide numerous other invaluable benefits, we learn, for example, that when a forest was clearcut in Japan for farming, the humus blew away and the land became arid and infertile.

To the surprise and dismay of local fishermen, the marine ecosystem downstream from the clearcut forest was also decimated — deprived of iron and other vital nutrients that had once run off from the forest. “The oceans feel the effect of a forest clearcut hundreds of miles away,” Beresford-Kroeger said.

A botanist and medical biochemist by training, Beresford-Kroeger is deeply concerned about the connection between deforestation and climate change. (Deforestation is a major source of greenhouse gases, and growing forests sequester carbon and help regulate the climate.) Her concern extends to the vast ancient boreal forest, which contains about a third of the world’s forest area. This enormous biome covers a large part of the Northern Hemisphere, and, because of its high latitude, is likely to be greatly affected by climate change.

Tar sands development has already destroyed many square miles of the Canadian boreal forest and an increase in fire and insect infestations related to climate change have also had a negative impact. “You can’t replace or replant the boreal forest complexity,” Beresford-Kroeger warns. “Once it’s gone, it’s gone.”

Beresford-Kroeger is not alone these days in calling for a massive, global reforestation effort. Earth Day Network has pledged to get [7.8 billion trees planted](#) around the world within four years — one for every person on the planet by the group’s 50th birthday. Its Canopy Project has already planted over 3 million trees in 32 countries since 2011, concentrating on areas most in need of restoration.

The [United Nations Environment Programme](#) and its partners launched a Billion Tree Campaign in 2006, planting more than 12 billion trees in five years, according to their website, before turning the campaign over to the Plant-for-the-Planet Foundation. (The Billion Tree Campaign

was inspired by Nobel Peace Prize laureate Professor Wangari Maathai, founder of Kenya's Green Belt Movement, which itself has planted 30 million trees since 1977.) The Nature Conservancy also has a [Plant a Billion Trees Campaign](#).

A local representative from the [Turtle Island Restoration Network](#) (based near Point Reyes), introduced the Call of the Forest conferees to the organization's new 10,000 redwood tree planting campaign as a response to climate change, which Turtle Island calls, "the greatest threat to life on Earth."

Coastal redwoods, however, are particularly effective at sequestering carbon because they are fast-growing, can survive for 2,000 years or more, and can store enormous amounts of carbon in their massive bulk. The trees are also native to the San Francisco Bay Area where they provide excellent protection to streams and riverbanks and habitat for native species like critically endangered coho salmon.

Turtle Island's goal is to restore 10,000 redwoods in the Bay Area over the next three years as part of its Salmon Protection and Watershed Network (SPAWN) program, which works to protect endangered coho salmon and restore their creekside habitat.

The group is calling for people to plant the trees at their homes and schools and for volunteers to help grow the redwood seedlings in their nursery. They are also looking for corporations interested in offsetting their carbon footprints.

The Call of the Forest conference also included panels on water, climate, and spiritual ecology. Taking the lead on the water panel, Linda Sheehan, Executive Director of the [Earth Law Center](#) of Redwood City argued that nature has an inherent right to exist in a healthy state. "The river has an inherent right to flow."

Water laws, she said, need to be "revisioned" to reflect our interconnections with water. Current water law only values water when it is used or withdrawn from a waterway, she noted.

Brock Dolman, co-founder of the [Occidental Arts and Ecology Center](#), focused attention on how the language we use to describe water and other aspects of the natural world can negatively influence our behavior toward it. He pointed out that we use an economic vocabulary to speak of water as a resource, an asset, or as a commodity. "Is the planet a community or a commodity? Is water a community or a commodity?" he asked.

Other conference speakers also addressed the commodification of nature. Award-winning author and conservationist Rick Bass, who is working to protect the biodiversity of Montana's remote Yaak Valley, said that in contrast to the corporation's economic myth that resources are inexhaustible, we need to establish a story of reciprocity and respect for nature.

The Call of the Forest conference was presented by [Point Reyes Books](#) and the nonprofit Black Mountain Circle and was co-sponsored by the [Center for Humans and Nature](#) and the [U.S. Forest Service](#), with additional support from the [Entrekin Family Foundation](#).

John J. Berger, PhD. (www.johnjberger.com) is an energy and environmental policy specialist who has produced ten books on climate, energy, and natural resource topics. He is the author of [*Climate Peril: The Intelligent Reader's Guide to the Climate Crisis*](#), and [*Climate Myths: The Campaign Against Climate Science*](#), and is at work on a new book about climate solutions.

http://www.huffingtonpost.com/john-j-berger/calls-for-billions-of-people_b_9526526.html

April 2016

A Moral Call to Earth Care

Center for Humans and Nature

Seemingly divergent perspectives and peoples are coming to the same conclusion: it is wrong to wreck the world, and we have responsibilities to each other and the whole community of life. In response to Pope Francis' June 18th encyclical letter, *Laudato Si'*, the Center for Humans and Nature has assembled a diverse set of reflections on caring for the Earth and each other. The ideas shared below illustrate many paths that lead to caring and respectful relationships with one another and with all of life. What are *your thoughts* on the ethics of caring for each other and our common home?

Read the contributions here:

<http://www.humansandnature.org/a-moral-call-to-earth-care>

April 1, 2016

Generation Anthropocene: How humans have altered the planet for ever

We are living in the Anthropocene age, in which human influence on the planet is so profound – and terrifying – it will leave its legacy for millennia. Politicians and scientists have had their say, but how are writers and artists responding to this crisis?

By Robert Macfarlane
The Guardian

In 2003 the Australian philosopher Glenn Albrecht [coined the term solastalgia](#) to mean a “form of psychic or existential distress caused by environmental change”. Albrecht was studying the effects of long-term drought and large-scale mining activity on communities in New South Wales, when he realised that no word existed to describe the unhappiness of people whose landscapes were being transformed about them by forces beyond their control. He proposed his new term to describe this distinctive kind of homesickness.

Where the pain of nostalgia arises from moving away, the pain of solastalgia arises from staying put. Where the pain of nostalgia can be mitigated by return, the pain of solastalgia tends to be

irreversible. Solastalgia is not a malady specific to the present – we might think of [John Clare](#) as a solastalgic poet, witnessing his native Northamptonshire countryside disrupted by enclosure in the 1810s – but it has flourished recently. “A worldwide increase in ecosystem distress syndromes,” wrote Albrecht, is “matched by a corresponding increase in human distress syndromes”. Solastalgia speaks of a modern uncanny, in which a familiar place is rendered unrecognisable by climate change or corporate action: the home become suddenly unhomey around its inhabitants.

Albrecht’s coinage is part of an emerging lexis for what we are increasingly calling the “Anthropocene”: the new epoch of geological time in which human activity is considered such a powerful influence on the environment, climate and ecology of the planet that it will leave a long-term signature in the strata record. And what a signature it will be. We have bored 50m kilometres of holes in our search for oil. We remove mountain tops to get at the coal they contain. The oceans dance with billions of tiny plastic beads. Weaponry tests have dispersed artificial radionuclides globally. The burning of rainforests for monoculture production sends out killing smog-palls that settle into the sediment across entire countries. We have become titanic geological agents, our legacy legible for millennia to come.

The idea of the Anthropocene asks hard questions of us. Temporally, it requires that we imagine ourselves inhabitants not just of a human lifetime or generation, but also of “deep time” – the dizzyingly profound eras of Earth history that extend both behind and ahead of the present. Politically, it lays bare some of the complex cross-weaves of vulnerability and culpability that exist between us and other species, as well as between humans now and humans to come. Conceptually, it warrants us to consider once again whether – in [Fredric Jameson](#)’s phrase – “the modernisation process is complete, and nature is gone for good”, leaving nothing but us.

There are good reasons to be sceptical of the epitaphic impulse to declare “the end of nature”. There are also good reasons to be sceptical of the Anthropocene’s absolutism, the political presumptions it encodes, and the specific histories of power and violence that it masks. But the Anthropocene is a massively forceful concept, and as such it bears detailed thinking through. Though it has its origin in the Earth sciences and advanced computational technologies, its consequences have rippled across global culture during the last 15 years. Conservationists, environmentalists, policymakers, artists, activists, writers, historians, political and cultural theorists, as well as scientists and social scientists in many specialisms, are all responding to its implications. A Stanford University team has boldly proposed that – living as we are through the last years of one Earth epoch, and the birth of another – we belong to “Generation Anthropocene”.

Literature and art are confronted with particular challenges by the idea of the Anthropocene. Old forms of representation are experiencing drastic new pressures and being tasked with daunting new responsibilities. How might a novel or a poem possibly account for our authorship of global-scale environmental change across millennia – let alone shape the nature of that change? The indifferent scale of the Anthropocene can induce a crushing sense of the cultural sphere’s impotence.

Yet as the notion of a world beyond us has become difficult to sustain, so a need has grown for fresh vocabularies and narratives that might account for the kinds of relation and responsibility in which we find ourselves entangled. “Nature,” Raymond Williams famously wrote in [Keywords](#) (1976), “is perhaps the most complex word in the language.” Four decades on, there is no “perhaps” about it.

Projects are presently under way around the world to gain the most basic of purchases on the Anthropocene – a lexis with which to reckon it. Cultural anthropologists in America have begun a glossary for what they call “an Anthropocene as yet unseen”, intended as a “resource” for confronting the “urgent concerns of the present moment”. There, familiar terms – petroleum, melt, distribution, dream – are made strange again, vested with new resilience or menace when viewed through the “global optic” of the Anthropocene.

Last year I started the construction of a crowdsourced Anthropocene glossary called the “Desecration Phrasebook”, and in 2014 [The Bureau of Linguistical Reality](#) was founded “for the purpose of collecting, translating and creating a new vocabulary for the Anthropocene”. Albrecht’s solastalgia is one of the bureau’s terms, along with “stieg”, “apex-guilt” and “shadowtime”, the latter meaning “the sense of living in two or more orders of temporal scale simultaneously” – an acknowledgment of the out-of-jointness provoked by Anthropocene awareness. Many of these words are, clearly, ugly coinages for an ugly epoch. Taken in sum, they speak of our stuttering attempts to describe just what it is we have done.

The word “Anthropocene” itself entered the *Oxford English Dictionary* surprisingly late, along with “selfie” and “upcycle”, in June 2014 – 15 years after it is generally agreed to have first been used in its popular sense.

In 1999, at a conference in Mexico City on the Holocene – the Earth epoch we at present officially inhabit, beginning around 11,700 years ago – the Nobel prize-winning atmospheric chemist Paul Crutzen was struck by the inaccuracy of the Holocene designation. “I suddenly thought this was wrong,” he later recalled. “The world has changed too much. So I said, ‘No, we are in the Anthropocene.’ I just made the word up on the spur of the moment. But it seems to have stuck.”

The following year, Crutzen and Eugene Stoermer – an American diatom specialist who had been using the term informally since the 1980s – jointly published an article proposing that the Anthropocene should be considered a new Earth epoch, [on the grounds that](#) “mankind will remain a major geological force for many millennia, maybe millions of years to come”. The scientific community took the Crutzen-Stoermer proposal seriously enough to submit it to the rigours of the stratigraphers.

Stratigraphy is an awesomely stringent discipline. Stratigraphers are at once the archivists, monks and philosophers of the Earth sciences. Their specialism is the division of deep time into aeons, eras, periods, epochs and stages, and the establishment of temporal limits for those divisions and their subdivisions. Their bible is the [International Chronostratigraphic Chart](#), the beautiful document that archives Earth history from the present back to the “informal” aeon of the Hadean, between 4bn and 4.6bn years ago (“informal” because vanishingly little is known

about it). Being a geo-geek, I sometimes mutter the mnemonics of the ICS as I cycle to work, trying to get the sequences straight: Cows Often Sit Down Carefully. Perhaps Their Joints Creak? – Cambrian, Ordovician, Silurian, Devonian, Carboniferous, Permian, Triassic, Jurassic, Cretaceous ...

The [Anthropocene Working Group of the Subcommittee on Quaternary Stratigraphy](#) – a title straight out of *Gormenghast* – was created in 2009. It was charged with delivering two recommendations: whether the Anthropocene should be formalised as an epoch and, if so, when it began. Among the baselines considered by the group have been the first recorded use of fire by hominins around 1.8m years ago, the dawn of agriculture around 8,000 years ago and the Industrial Revolution.

The group's report is due within months. Recent publications indicate that they will recommend the designation of the Anthropocene, and that the “stratigraphically optimal” temporal limit will be located somewhere in the mid-20th century. This places the start of the Anthropocene simultaneous with the start of the nuclear age. It also coincides with the so-called “Great Acceleration”, when massive increases occurred in population, carbon emissions, species invasions and extinctions, and when the production and discard of metals, concrete and plastics boomed.

Plastics in particular are being taken as a key marker for the Anthropocene, giving rise to the inevitable nickname of the “Plasticene”. We currently produce around 100m tonnes of plastic globally each year. Because plastics are inert and difficult to degrade, some of this plastic material will find its way into the strata record. Among the future fossils of the Anthropocene, therefore, might be the trace forms not only of megafauna and nano-planktons, but also shampoo bottles and deodorant caps – the strata that contain them precisely dateable with reference to the product-design archives of multinationals. [“What will survive of us is love”](#), wrote [Philip Larkin](#). Wrong. What will survive of us is plastic – and lead-207, the stable isotope at the end of the uranium-235 decay chain.

The [Deutsches Museum](#) in Munich is currently hosting “An Anthropocene Wunderkammer”, which it calls “the first major exhibition in the world” to take the Anthropocene as its theme. Among the exhibits is a remarkable work by the American writer and conservation biologist [Julianne Lutz Warren](#), entitled “Hopes Echo”. It concerns the huia, an exquisite bird of New Zealand that was made extinct in the early 20th century due to habitat destruction, introduced predators and overhunting for its black and ivory tail feathers. The huia vanished before field-recording technologies existed, but a version of its song has survived by means of an eerie series of preservations: a sound fossil. In order to lure the birds to their snares, the Maori people learned to mimic the huia song. This mimicked song was passed down between generations, a practice that continued even after the huia was gone. In 1954 a pakeha (a European New Zealander) called RAL Bateley made a recording of a Maori man, [Henare Hamana, whistling his imitation of the huia's call](#).

Warren's exhibit makes Bateley's crackly recording available, and her accompanying text unfolds the complexities of its sonic strata. It is, [as Warren puts it](#), “a soundtrack of the sacred voices of extinct birds echoing in that of a dead man echoing out of a machine echoing through

the world today”. The intellectual elegance of her work – and its exemplary quality as an Anthropocene-aware artefact – lies in its subtle tracing of the technological and imperial histories involved in a single extinction event and its residue.

Anthropocene art is, unsurprisingly, obsessed with loss and disappearance. We are living through what is popularly known as the [“sixth great extinction”](#). A third of all amphibian species are at risk of extinction. A fifth of the globe’s 5,500 known mammals are classified as endangered, threatened or vulnerable. The current extinction rate for birds may be faster than any recorded across the 150m years of avian evolutionary history. We exist in an ongoing biodiversity crisis – but register that crisis, if at all, as an ambient hum of guilt, easily faded out. Like other unwholesome aspects of the Anthropocene, we mostly respond to mass extinction with stuplimity: the aesthetic experience in which astonishment is united with boredom, such that we overload on anxiety to the point of outrage-outage.

Art and literature might, at their best, shock us out of the stuplime. Warren’s haunted study of the huia finds its own echo in the prose and poetry of [Richard Skelton and Autumn Richardson](#). Their work – sometimes jointly authored – is minutely attentive to the specificities of the gone and the will-be-gone. Place names and plant names assume the status of chants or litanies: spectral taxa incanted as elegy, or as a means to conjure back. In [Succession \(2013\)](#), [Skelton and Richardson](#) studied palynological records to reconstruct lists of the grasses and flowers that flourished in the western Lake District after the end of the Pleistocene. The area “is still inhabited by the ghosts of lost flora and fauna”, writes Richardson, of which there are “traces that even now, centuries later, can be uncovered and celebrated”. [Diagrams for the Summoning of Wolves](#) (2015), a purely musical work, shifts from celebration to intervention: it is intended as a performative utterance – a series of notes, rituals and gestures that might somehow enable “the return itself”.

Rory Gibb smartly notes that the work of Skelton and Richardson is different in kind from conventional eco-elegy: it evokes [“a more feral feeling of being stalked by ecosystemic memory”](#). Such a feeling is appropriate to the Anthropocene, in which we have erased entire biomes and crashed whole ecosystems. Their writing often moves back through the Holocene and into its prior epochs, before sliding forwards to imaginary far futures. They send ghost emissaries – foxes, wolves, pollen grains, stones – back and forth along these deep-time lines. Instead of the intimacies and connections urged by conventional “green” literature, writing like this speaks of a darker ecological impulse, in which salvation and self-knowledge can no longer be found in a mountain peak or stooping falcon, and categories such as the picturesque or even the beautiful congeal into kitsch.

Perhaps the greatest challenge posed to our imagination by the Anthropocene is its inhuman organisation as an event. If the Anthropocene can be said to “take place”, it does so across huge scales of space and vast spans of time, from nanometers to planets, and from picoseconds to aeons. It involves millions of different teleconnected agents, from methane molecules to rare earth metals to magnetic fields to smartphones to mosquitoes. Its energies are interactive, its properties emergent and its structures withdrawn.

In 2010 [Timothy Morton](#) adopted the term hyperobject to denote some of the characteristic entities of the Anthropocene. Hyperobjects are “so massively distributed in time, space and dimensionality” that they defy our perception, let alone our comprehension. Among the examples Morton gives of hyperobjects are climate change, mass species extinction and radioactive plutonium. “In one sense [hyperobjects] are abstractions,” he notes, “in another they are ferociously, catastrophically real.”

Creative non-fiction, and especially reportage, has adapted most quickly to this “distributed” aspect of the Anthropocene. Episodic in assembly and dispersed in geography, some outstanding recent non-fiction has proved able to map intricate patterns of environmental cause and effect, and in this way draw hyperobjects into at least partial visibility. Elizabeth Kolbert’s [The Sixth Extinction: An Unnatural History](#) (2014) and her [Field Notes from a Catastrophe](#) (2006) are landmarks here, as is Naomi Klein’s [This Changes Everything: Capitalism vs the Climate](#) (2014). In 2015 Gaia Vince published [Adventures in the Anthropocene](#), perhaps the best book so far to trace the epoch’s impacts on the world’s poor, and the slow violence that climate change metes out to them.

Last year also saw the publication of [The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins](#), by the American anthropologist Anna Tsing. Tsing takes as her subject one of the “strangest commodity chains of our times”: that of the matsutake, supposedly the most valuable fungus in the world, which grows best in “human-disturbed forests”. Written in what she calls “a riot of short chapters, like the flushes of mushrooms that come up after rain”, Tsing’s book describes a contemporary “nature” that is hybrid and multiply interbound. Her ecosystems stretch from wood-wide webs of mycelia, through earthworms and pine roots, to logging trucks and hedge funds – as well as down into the flora of our own multispecies guts. Tsing’s account of nature thus overcomes what Jacques Rancière has called the “partition of the sensible”, by which he means the traditional division of matter into “life” and “not-life”. Like Skelton in his recent [Beyond the Fell Wall](#) (2015), and the poet [Sean Borodale](#), Tsing is interested in a vibrant materialism that acknowledges the agency of stones, ores and atmospheres, as well as humans and other organisms.

Tsing is also concerned with the possibility of what she calls “collaborative survival” in the Anthropocene-to-come. As Evans Calder Williams notes, the Anthropocene imagination “crawls with narratives of survival”, in which varying conditions of resource scarcity exist, and varying kinds of salvage are practised. Our contemporary appetite for environmental breakdown is colossal, tending to grotesque: from Cormac McCarthy’s [The Road](#) (2006) – now almost an Anthropocene ur-text – through films such as [The Survivalist](#) and the Mad Max franchise, to [The Walking Dead](#) and the [Fallout video game](#) series.

The worst of this collapse culture is artistically crude and politically crass. The best is vigilant and provocative: Simon Ings’ [Wolves](#) (2014), for instance, James Bradley’s strange and gripping [Clade](#) (2015), or Paul Kingsnorth’s [The Wake](#) (2014), a post-apocalyptic novel set in the “blae”, “brok” landscape of 11th-century England, that warns us not to defer our present crisis. I think also of Clare Vaye Watkins’s glittering [Gold Fame Citrus](#) (2015), which occurs in a drought-scorched American southwest and includes a field-guide to the neo-fauna of this dunescape: the “ouroboros rattlesnake”, the “Mojave ghost crab”.

Such scarcity narratives unsettle what we might call the Holocene delusion on which growth economics is founded: of the Earth as an infinite body of matter, there for the incredible ultra-machine of capitalism to process, exploit and discard without heed of limit. Meanwhile, however, speculative novelists – Andy Weir in [*The Martian*](#), Kim Stanley Robinson in [*Red Mars*](#) – foresee how we will overcome terrestrial shortages by turning to asteroid mining or the terra-forming of Mars. To misquote Fredric Jameson, it is easier to imagine the extraction of off-planet resources than it is to imagine the end of capitalism.

The novel is the cultural form to which the Anthropocene arguably presents most difficulties, and most opportunities. Historically, the novel has been celebrated for its ability to represent human interiority: the skull-to-skull skip of free indirect style, or the vivid flow of stream-of-consciousness. But what use are such skills when addressing the enormity of this new epoch? Any Anthropocene-aware novel finds itself haunted by impersonal structures, and intimidated by the limits of individual agency. [China Miéville's 2011 short story](#) “Covehithe” cleverly probes and parodies these anxieties. In a near-future Suffolk, animate oil rigs haul themselves out of the sea, before drilling down into the coastal strata to lay dozens of rig eggs. These techno-zombies prove impervious to military interventions: at last, all that humans can do is become spectators, snapping photos of the rigs and watching live feeds from remote cameras as they give birth – an Anthropocene *Springwatch*.

Most memorable to me is Jeff VanderMeer's 2014 novel, [*Annihilation*](#). It describes an expedition into an apparently poisoned region known as Area X, in which relic human structures have been not just reclaimed but wilfully redesigned by a mutated nature. A specialist team is sent to survey the zone. They discover archive caches and topographically anomalous buildings including a “Tower” that descends into the earth rather than jutting from it. The Tower's steps are covered in golden slime, and on its walls crawls a “rich greenlike moss” that inscribes letters and words on the masonry – before entering and authoring the bodies of the explorers themselves. It gradually becomes apparent that Area X, in all its weird wildness, is actively transforming the members of the expedition who have been sent to subdue it with science. As such, VanderMeer's novel brilliantly reverses the hubris of the Anthropocene: instead of us leaving the world post-natural, it suggests, the world will leave us post-human.

As the idea of the Anthropocene has surged in power, so its critics have grown in number and strength. Cultural and literary studies currently abound with Anthropocene titles: most from the left, and often bitingly critical of their subject. The last 12 months have seen the publication of Jedediah Purdy's [*After Nature: A Politics for the Anthropocene*](#), McKenzie Wark's provocative [*Molecular Red: Theory for the Anthropocene*](#) and the environmental historian Jason W Moore's important [*Capitalism in the Web of Life*](#). Last July the “revolutionary arts and letters quarterly” [*Salvage*](#) launched with an issue that included Daniel Hartley's essay “Against the Anthropocene” and Miéville, superbly, on despair and environmental justice in the new epoch.

Across these texts and others, three main objections recur: that the idea of the Anthropocene is arrogant, universalist and capitalist-technocratic. Arrogant, because the designation of the Anthropocene – the “New Age of Humans” – is our crowning act of self-mythologisation (we are the super-species, we the Prometheans, we have ended nature), and as such only embeds the narcissist delusions that have produced the current crisis.

Universalist, because the Anthropocene assumes a generalised *anthropos*, whereby all humans are equally implicated and all equally affected. As Purdy, Miéville and Moore point out, “we” are not all in the Anthropocene together – the poor and the dispossessed are far more in it than others. “Wealthy countries,” writes Purdy, “create a global landscape of inequality in which the wealthy find their advantages multiplied ... In this neoliberal Anthropocene, free contract within a global market launders inequality through voluntariness.”

And capitalist-technocratic, because the dominant narrative of the Anthropocene has technology as its driver: recent Earth history reduced to a succession of inventions (fire, the combustion engine, the synthesis of plastic, nuclear weaponry). The monolithic concept bulk of this scientific Anthropocene can crush the subtleties out of both past and future, disregarding the roles of ideology, empire and political economy. Such a technocratic narrative will also tend to encourage technocratic solutions: geoengineering as a quick-fix for climate change, say, or the Anthropocene imagined as a pragmatic problem to be managed, such that “Anthropocene science” is translated smoothly into “Anthropocene policy” within existing structures of governance. Moore argues that the Anthropocene is not the geology of a species at all, but rather the geology of a system, capitalism – and as such should be rechristened the Capitalocene.

There are signs that we will soon be exhausted by the Anthropocene: glutted by its ubiquity as a cultural shorthand, fatigued by its imprecisions, and enervated by its variant names – the “Anthrobscene”, the “Misanthropocene”, the “Lichenocene” (actually, that last one is mine). Perhaps the Anthropocene has already become an anthropomeme: punned and pimped into stuplimity, its presence in popular discourse often just a virtue signal that merely mandates the user to proceed with the work of consumption.

I think, though, that the Anthropocene has administered – and will administer – a massive jolt to the imagination. Philosophically, it is a concept that does huge work both for us and on us. In its unsettling of the entrenched binaries of modernity (nature and culture; object and subject), and its provocative alienation of familiar anthropocentric scales and times, it opens up rather than foreclosing progressive thought. What Christophe Bonneuil calls the “shock of the Anthropocene” is generating new political arguments, new modes of behaviour, new narratives, new languages and new creative forms. It asserts – as Jeremy Davies writes at the end of his excellent forthcoming book, [The Birth of the Anthropocene](#) – a “pressing need to re-imagine human and nonhuman life outside the confines of the Holocene”, while also asking “how best to keep faith with the web of relationships, dependencies, and symbioses that made up the planetary system of the dying epoch”. Systemic in its structure, the Anthropocene charges us with systemic change.

In 1981 the research field of “nuclear semiotics” was born. A group of interdisciplinary experts was tasked with preventing future humans from intruding on to a subterranean storage facility for radioactive waste, then under construction in the New Mexico desert. The half-life of plutonium-239 is around 24,100 years; the written history of humanity is around 5,000 years old. The challenge facing the group was how to devise a sign system that could semantically survive even catastrophic phases of planetary future, and that could communicate with an unknown humanoid-to-be.

Several proposals involved forms of hostile architecture: a “landscape of thorns” in which 15m-high concrete pillars with jutting side spikes impeded access; a maze of sharp black rock blocks that absorbed solar energy to become impassably hot. But such aggressive structures can act as enticements rather than cautions, suggesting here be treasure rather than here be dragons. Prince Charming hacked his way through the briars to wake Sleeping Beauty. Indiana Jones braved wooden spikes and rolling boulders to reach the golden idol in a booby-trapped Peruvian temple. Sometimes I wonder if the design task should be handed wholesale to the team behind the Ikea instruction manuals: if they can convey in pictograms how to put up a Billy bookcase anywhere in the world, they can surely tell someone in 10,000 years’ time not to dig in a certain place.

The New Mexico facility is due to be sealed in 2038. The present plans for marking the site involve a berm with a core of salt, enclosing the above-ground footprint of the repository. Buried in the berm will be radar reflectors, magnets and a “Storage Room”, constructed around a stone slab too big to be removed via the chamber entrance. Data will be inscribed on to the slab including maps, time lines, and scientific details of the waste and its risks, written in all current official UN languages, and in Navajo: “This site was known as the WIPP (Waste Isolation Pilot Plant Site) when it was closed in 2038 AD ... Do not expose this room unless the information centre messages are lost. Leave the room buried for future generations.” Discs made of ceramic, clay, glass and metal, also engraved with warnings, will be embedded in the soil and the shaft seals. Finally, a “hot cell”, or radiation containment chamber, will be constructed: a reinforced concrete structure extending 60 feet above the earth and 30 feet down into it: VanderMeer’s “Tower” made real.

I think of that configuration of berm, chamber, shaft, disc and hot cell – all set atop the casks of pulsing radioactive molecules entombed deep in the Permian strata – as perhaps our purest Anthropocene architecture. And I think of those multiply repeated incantations – pitched somewhere between confession, caution and black mass; leave the room buried for future generations, leave the room buried for future generations ... – as perhaps our most perfected Anthropocene text.

<https://www.theguardian.com/books/2016/apr/01/generation-anthropocene-altered-planet-for-ever>

April 1, 2016

Indigenous Peoples Leaders commend the steadfast actions of SAVE Rivers resulting in the scrapping of the Baram Dam

Indigenous Voices in Asia

The unanticipated decision by Sarawak State Chief Minister to revoke the gazettelement for land earmarked for the Baram dam site and reservoir has been commended by indigenous leaders around the world.

“The decision to halt the construction of the Baram dam is timely with the mounting evidence that the unpredictable and extreme weather caused by climate change would further increase the cost and reduce the benefits of mega dams. With the added irreparable damage to indigenous communities who would be relocated for this purpose, the decision to revoke plans for the Baram dam is exemplary,” said Joan Carling, member of the United Nations Permanent Forum on Indigenous Issues (UNFPII).

Early last week, SAVE Rivers, the key community-led NGO opposing the Baram dam, published a press statement announcing the decision.

In the statement, Harrison Ngau, lawyer for the Baram villagers, shared a letter from the State Legal Office dated 15 March 2016 stating that the gazette that extinguished the native customary rights (NCR) of the indigenous Kayan, Kenyah and Penan communities to their lands for the purpose of the Baram Dam site and reservoir areas was repealed and published in the Sarawak Government Gazette on 18 February 2016.

In the earlier gazettes in 2013 and 2015, native customary lands belonging to up to 20,000 indigenous peoples from 26 villages were taken from them using the Sarawak Land Code for the proposed mega dam. The lands included their villages, farms, cemeteries and communal forest reserve land known as pulau galau. The community protested by setting up two blockades since October 2013 to prevent the construction of the access road and preparatory works for the proposed dam.

Achieving #LandRightsNow

“The success of the Baram villagers in their 5-year old struggle is a huge victory for indigenous peoples around the world. It adds fervor to the momentum we need to double the global area of land legally recognized as owned or controlled by indigenous peoples and local communities by 2020,” adds Carling, referring to the recently launched Land Rights Now campaign (landrightsnow.org/)

Carling, who is also Secretary General of the Asia Indigenous Peoples Pact (AIPP), was part of the delegation of indigenous leaders who visited the Baram Dam blockades in October last year during the World Indigenous Summit on Environment and Rivers (WISER).

Among the delegates was internationally renowned environmental activist, Berta Caceres from Honduras, who was assassinated a month ago in her home. Together at WISER, they had expressed their strong solidarity and support to the affected communities and the SAVE Rivers network.

“The success of the Baram folks in stopping a mega dam is one of the many land cases we will see through to victory, as we, the indigenous peoples of Malaysia are fully committed to realize the goals of the Land Rights Now campaign,” said Jannie Lasimbang, Secretary General of the Indigenous Peoples Network of Malaysia (JOAS).

“This is a promise we make to ourselves and to our fellow indigenous friends across the globe,” she added.

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<http://iva.aippnet.org/indigenous-peoples-leaders-commend-the-steadfast-actions-of-save-rivers-resulting-in-the-scrapping-of-the-baram-dam/>

April 4, 2016

Ecuador drills for oil on edge of pristine rainforest in Yasuni

First of 200 wells drilled close to controversial block of forest known to have two of the last tribes living in isolation

By John Vidal
The Guardian

Ecuador has started drilling for oil on the edge of a [controversial block of pristine rainforest](#) inhabited by two of the last tribes in the world living in voluntary isolation.

The well platform known as Tiputini C, which is now operational a few kilometres from the Peruvian border in the Yasuni national park, is expected to be the first of nearly 200 wells needed to extract the 920m barrels of crude thought to lie below the Ishpingo Tambococha Tiputini (ITT) block.

The Tiputini field is just outside the ITT zone which the government has ordered oil companies to leave untouched. But indigenous people, rainforest campaigners and many Ecuadoreans said this week that they expect oil exploitation in Yasuni national park to lead to pollution, forest destruction and the decimation of the nomadic [Tagaeri and the Taromenane](#) tribes who have chosen to have no contact with the outside world.

The government's [ministry of strategic sectors said](#) that the state oil company, PetroAmazonas, would be using directional and horizontal drilling which would meet high international standards.

The first oil is expected to flow by the end of 2016. “We are optimising costs and increasing production areas with better prospects,” said minister Rafael Poveda.

Ecuador's decision to allow oil companies to drill the ITT block, which contains around 30% of the country's remaining reserves, has been hotly disputed since 2007 when the new Rafael

Correa government pledged to permanently keep the oil underground in exchange for around \$3.6bn from the international community. [The “Yasuni initiative”](#) was administered by the UN and hailed as one of the world’s most innovative conservation proposals.

But in August 2013, [President Correa withdrew the proposal saying the pledges received from countries were minimal](#) and that Ecuador had been failed by the international community.

He argued that Ecuador, which has been [devastated by oil pollution in the 1970s](#) by US oil firms, had no option but to exploit the ITT oil to pay for poverty relief.

Correa’s change of mind led to demonstrations, the emergence of a political movement known as Yasunidos and [a hotly-debated petition which failed to reach the threshold to trigger a national referendum](#).

Ecuador is the first country in the world to include the [rights of nature](#) in its constitution and until the Yasuni controversy it was considered one of the most environmentally-progressive countries. To reduce criticism, Correa promised that only 1/1000th of the area of the Yasuni park would be exploited and the best available technology would be used to reduce pollution.

But many indigenous leaders and conservationists remain angry. “By drilling Yasuní-ITT, the Ecuadorian government is threatening to destroy one of the most biodiverse and culturally fragile treasures on the planet for what amounts to about a week of global oil supply,” said Amazon Watch’s director, Leila Salazar-Lopez.

“Why such urgency to exploit the Yasuni-ITT with an adverse oil market?” she said.

Alicia Cahuiya, the vice-president of the Waorani people in Ecuador who has received death threats for opposing oil exploitation in Yasuni, said [Ecuador](#) was not protecting isolated peoples.

“If they are going to protect them, they can no longer construct more roads or oil wells ... The state must, as they say, ensure and protect the [isolated indigenous] Taromenane. As Waorani we ask that they keep their territory. No more exploitation there. No more taking down our trees,” she said.

Because of its location right on the equator at the junction of the forest and the mountains, Yasuní is one of the most biodiverse places on Earth. The park [is thought](#) to have more species of plants, animals and insects per hectare than anywhere else.

Kelly Swing, director of the [Tiputini biodiversity research centre](#) on the edge of the Yasuni park, said drilling made no sense. “As a new wave of oil operations push into the last remaining corners of the Yasuni, we are appalled. Ecuador is now losing around \$15 per barrel but continues to expand [oil] operations under the pretext that prices are about to soar again while countries like Iran are flooding the world market with more product every day.”

In a separate development, Ecuador's government earlier this year sold oil exploration rights on 500,000 acres of forest adjoining the Yasuni park to a consortium of Chinese state-owned oil companies.

[Andes Petroleum Ecuador](#) paid about \$80m, according to the research firm Energy Intelligence.

<http://www.theguardian.com/environment/2016/apr/04/ecuador-drills-for-oil-on-edge-of-pristine-rainforest-in-yasuni>

April 6, 2016

For the Planet and the Poor

Keough School of Global Affairs, University of Notre Dame

We are witnessing an extraordinary moment in the history of global efforts to eliminate extreme poverty and preserve the natural environment. Never before have international development organizations, national governments, the Catholic Church, and other religious and faith-based organizations been so closely aligned in a campaign to address the most daunting challenges facing humanity and the planet.

The surprising convergence of Pope Francis's encyclical on the environment, [*Laudato Si': On Care for Our Common Home*](#), with his support of the [Sustainable Development Goals](#) to "end poverty, fight inequality and injustice, and tackle climate change by 2030," have presented us with a remarkable moment of opportunity.

This conference, organized by Notre Dame's new **Keough School of Global Affairs**, brought together students and faculty with leading thinkers from the worlds of development policy and practice, government, the Church, and other religious bodies to reflect on the events of the previous year and chart a way forward.

Watch videos from this conference:

<http://keough.nd.edu/news-events/for-the-planet-and-the-poor/>

April 6, 2016

Pope Francis' *Laudato Si'*: Hope for our Common Home

Every time I read *Laudato Si'* I discover fresh insights into the relationship between God and the planetary community of life on Earth, our common home.

By Denis Edwards
MN News

I find myself renewed in hope, taken by joy at the beauty of Francis' vision, sobered by the challenges we face and summoned again to see my life as an ecological vocation, radically committed to Earth and all its creatures.

This encyclical represents a new moment in Catholic social teaching. Since the 1980s Pope John Paul II and Pope Benedict XVI have made important contributions that call the church and the world to an ecological conversion. But with this far more developed work of Pope Francis, the protection of God's creation is now formally and permanently brought to the centre of Catholic social teaching, along with the church's long-standing commitment to inter-human justice and peace. In what follows, I will highlight some key theological positions taken by Pope Francis.

A theology grounded in what is happening to our 'common home'

Laudato Si' begins with a clear-eyed discussion of what is happening to our planet. Pope Francis sees Earth as our common home, to be shared by humans and other creatures, a home for future generations. It's a home we are meant to care for and protect, but one we have treated with violence. In particular Pope Francis offers a careful analysis of major issues, particularly pollution and global warming, the looming crisis of fresh water and the loss of biodiversity, along with a decline in the quality of human life, the breakdown of society and global inequality.

The way of dialogue

A striking feature of *Laudato Si'* is that it consistently puts into practice the way of dialogue advocated by the Second Vatican Council's *Pastoral Constitution on the Church in the Modern World*. The encyclical is fully dialogical in both structure and content. Pope Francis writes, "Now, faced as we are with global deterioration, I wish to address every living person on this planet...In this encyclical, I would like to enter into dialogue with all people about our common home" (par 3).

The Universal Communion of Creation

In his second chapter, Pope Francis turns to the Bible to articulate a theology of the whole of creation as one interrelated community before God. Here he offers us a new theology of the natural world, involving three aspects.

Firstly, he insists that other creatures have meaning and value not simply because of their use to human beings, but in themselves. They have intrinsic value. Why? Because God is present to each of them, God loves each of them, and each has a future in God.

Secondly, each creature is a word of God to human beings. Creation is a kind of revelation, a manifestation of God, a book of God alongside the Scriptures. "Nature is filled with words of love."

Thirdly, human beings are part of nature, and together with other creatures we form a sublime communion in God. As St Francis has shown, other creatures are our kin. "Everything is related,

and we human beings are united as brothers and sisters on a wonderful pilgrimage, woven together by the love God has for each of his creatures and which also unites us in affection with brother son, sister moon, brother river and mother earth” (par 92). Francis tells us that the risen Christ is already present to the whole creation, bringing it to its final fulfilment.

Integral Ecology

Integral ecology is at the centre of Pope Francis’ encyclical. Ecological commitment and commitment to our human brothers and sisters, above all the poor, are held together in one vision. These two commitments are united as aspects of one ecological vocation. Our response to the crisis we face will need to be holistic, based on a broad vision of reality that involves not only plants, animals, habitats, the atmosphere, rivers and seas, but also human beings and their culture. We find inspiration for this kind of integration in St Francis of Assisi, in his love for the poor and his love for the other creatures of the natural world.

From his first homily as pope, Pope Francis has made this same link clearly and strongly, calling us to protect creation and our human brothers and sisters; above all, those who are poor and excluded. In his new encyclical he writes, “Everything is interconnected. Concern for the environment thus needs to be joined to a sincere love for our fellow human beings and an unwavering commitment to resolving the problems of society” (par 91).

An integral ecology involves love and respect for animals and plants, but also for human history, art and architecture. Integral ecology involves protecting the cultural treasures of humanity. It involves respect for the cultures of indigenous peoples, “They are not merely one minority among others, but should be the principal dialogue partners, especially when large projects affecting their land are proposed. For them land is not a commodity but rather a gift from God and from their ancestors who rest there, a sacred space with which they need to interact if they are to maintain their identity and values (par 146).

Political and Personal Action

Pope Francis prophetically engages political leaders in dialogue, asking them to accept responsibility for protecting the environment and calling them to support international agreements to lift people out of poverty, limit carbon emissions and protect biodiversity.

He also points to the fundamental importance of “civic and political love”, including the indispensable role of ecological education in our families and schools. He insists on the importance of embracing ways of acting, “such as avoiding the use of plastic and paper, reducing water consumptions, separating refuse, cooking only what can reasonably be consumed, showing care for other living beings, using public transport or car-pooling, planting trees, turning off unnecessary lights” (par 211).

Pope Francis calls us all to an ongoing ecological conversion, to a spirituality of love and respect for animals and their habitats, for the land, the seas, the rivers, in the one community of life on Earth. All of this culminates in our Sunday of rest and in the Eucharist that embraces all creation and is a source of light and motivation.

April 7, 2016

Meet the Jeans-Wearing, Nature-Loving Nuns Who Helped Stop a Kentucky Pipeline

As fewer women enter the convent, what will become of Kentucky's tradition of socially and environmentally engaged religious women?

By Laura Michele Diener
YES! Magazine

"The easiest way for me to find God is in nature," Sister Cecilia Skees explains. Born Ruth Skees, she grew up in Hardin County, Kentucky, during the 1930s. It's a rural place of soft green hills, where her father farmed his entire life.

Now just a few months shy of her eighty-fifth birthday, she remembers feeling the first stirrings of a religious calling at the age of 10. Her peasant blouse and smooth, chin-length haircut don't fit the popular image of a nun, but she has been a Sister of Loretto—a member of a religious order more than 200 years old—since she took vows at the age of 18.

Skees' commitment to social activism goes back almost as far as her commitment to the church. She has marched for civil rights, founded a school for early childhood education, and taught generations of children.

Then, a few years ago, she heard about the Bluegrass Pipeline, a joint venture between two energy companies: Williams and Boardwalk Pipeline Partners. The project would have transported natural gas liquids from fracking fields in Pennsylvania and Ohio southwest across Kentucky to connect with an existing pipeline to the Gulf of Mexico. Loretto's land was directly in its path.

On August 8, 2013, Skees and other sisters from Loretto and several other convents attended an informational meeting held by representatives of the two companies. Frustrated with what they saw as a lack of helpful information, several of the sisters, including Skees, gathered in the center of the room and broke into song. A video of the sisters singing "Amazing Grace" was picked up by media outlets such as *Mother Jones* and reached hundreds of thousands of people.

Woodford county resident Corlia Logsdon remembers how a company representative asked the police to arrest the sisters for disrupting the meeting that day. But the officers, who were graduates of local Catholic schools, refused to arrest their former teachers.

Logsdon joined the campaign against the pipeline when she realized the proposed route would cut directly through her front yard. She says she found the sisters to be stalwart partners, who regularly accompanied her to negotiate with state lawmakers. "It was the first time I had ever

done anything like that. And they came with me, persistently presenting a positive and yet quietly forceful presence in the legislature.”

Sellus Wilder, a documentary filmmaker, says he joined the campaign to stop the Bluegrass Pipeline after seeing the video of the nuns singing. His experiences led him to produce *The End of the Line*, a documentary film about the pipeline and opposition to it. He called the sisters the glue that held the diverse group of protesters together and kept them focused.

“They all have really strong, glowing spirits,” Wilder says. “They brought their inherent qualities—energy, compassion, and education, as well as a certain ethereal element—to the whole campaign.”

Whatever the nuns brought, it worked. In March 2014, a circuit judge ruled against the pipeline, saying the companies had no right to use eminent domain against owners unwilling to sell their land. A few months later, the companies agreed to redraw their route to avoid Loretto’s grounds, but the sisters kept protesting to support their neighbors. The case eventually went to the state supreme court, which upheld the lower court’s decision. The pipeline was defeated—and the same coalition [is now fighting another one](#).

In a way, Skees and the other nuns’ participation in the Bluegrass Pipeline fight was not that unusual. About 80 percent of American nuns are members of the Leadership Conference of Women Religious, which is committed to environmental activism. Sister Ann Scholz, the LCWR’s associate director for social mission, says this position is a direct outcome of the way sisters interpret the gospel.

“No Christian can live the gospel fully unless they attend the needs of their brothers and sisters, including Mother Earth,” Scholz explains. “Our work for social justice grows out of the Catholic social teaching and the Gospel of Jesus Christ.”

But because the Sisters of Loretto are in rural Kentucky, their engagement with these issues takes on a regional flavor. Kentucky is a key battleground state in the debates over fracking and coal mining, and its eastern region is home to some of the poorest counties in Appalachia. The nuns are also rural, and help unify far-flung residents with diverse interests.

For example, the Sisters of Loretto joined with local advocates for coal miners’ rights in 1979 to sue the Blue Diamond Coal Company in order to expose what they saw as a record of poor safety, mining disasters, and environmental negligence in Kentucky.

Skees herself spent much of the 1960s and ’70s teaching in Louisville, where she marched against racial discrimination in housing and for the integration of schools. “At Loretto we tend to go with the flow,” she muses. “But we do not flow with injustice.”

Kentucky sisters have also been involved in protests across the United States. They have traveled to Alabama, Mississippi, and Washington, D.C., to march for civil rights, for universal health care, and against the wars in Vietnam, Afghanistan, and Iraq. They hold annual protests at the controversial School of the Americas at Fort Benning, Georgia, a training program for Latin

American military whose graduates have been accused of human-rights violations (the school is now called the Western Hemisphere Institute for Security Cooperation).

These nuns and others like them have long formed part of the core of the nation's activist population. But their numbers are decreasing, and those who remain are getting older. The same thing [is happening all over the United States](#)—there were only about 49,000 sisters in 2015, compared to nearly 180,000 in 1965.

Skees' own life helps explain the decline. "Women had very few choices when I went to the convent," she says. "We could be nurses, secretaries, teachers—or we could get married."

Until the 1960s, convent life offered professional opportunities for women that other fields lacked—nuns could become high school principals, college deans, or administrators. But women today don't need a habit to move into positions of leadership.

What will this decline mean for socially engaged nuns like the ones who helped defeat the Bluegrass Pipeline? Will it end their tradition? Or will their work simply evolve?

To find out, I spent several days at each of three convents in Kentucky. First, I headed east into the foothills of the Appalachian mountains to visit the Benedictine Sisters of Mt. Tabor, an intimate community that has opened up its home to its neighbors as a space of contemplation. Next, I went to central Kentucky to visit the Sisters of Charity, a global order with convents in Africa, Asia, and Central America. Finally, I dropped by the motherhouse of the Sisters of Loretto, founded by pioneer women dedicated to teaching the children of Kentucky.

I came away thinking how deeply each convent was embedded in its community, and how precious was their wonder at the natural world. The sisters are too busy looking ahead to worry about dwindling numbers.

Fierce contemplation

The motherhouse of the Sisters of Charity in Nazareth, Kentucky, serves as a retirement home for sisters who have spent their lives in ministry—although you might not know that from the energy of the women here.

"You keep going as long as you can," Sister Joan Wilson explained cheerfully. Tall and slender, with close-cropped white hair and a gentle manner, she radiated kindness and concern.

I got to know Joan—along with Sisters Theresa Knabel, Frances Krumpelman, and Julie Driscoll—and all four expressed utter joy in their natural surroundings. "There's such a beauty in nature that it's such a spiritual experience," Driscoll said. "Every time I see a deer, I think, 'Oh, what a blessing! Thank you, God!'"

"Rainbows just turn the place upside down!" Krumpelman added.

Their pleasure in rainbows and sunsets at first struck me as childlike—odd to find among women in their 70s and 80s. But I soon realized it was deeply rooted in contemplation and prayer.

Their love of nature derived in part from the texts they have studied and prayed over, they said, especially the Psalms, the ancient Hebrew poems that utilize images of mountains, birds, and stars to express the glory of divine creation. “The Psalms rave about nature, so I probably imbibed the beauty of it when I prayed,” Knabel said.

They feel a similar delight in the work of Pope Francis, especially with his encyclical letter, *Laudato Si*, which calls for a universal awareness of climate change and its effects on the poor.

The community avidly read and discussed it, and couldn’t seem to order enough copies.

The beauty of their grounds is overwhelming, and as I explored them alongside Sister Joan, I found myself caught up in her wonder. The autumn leaves mirrored in the lakes, the shadowy corners with statues of long-ago saints, the bright paths dappled with sun, all brought forth a sense of peace. Judging by the number of other visitors strolling around, I wasn’t the only one drawn to the harmonious abundance of Nazareth. The sisters believe part of their mission is to share the beauty of their home with their neighbors, so they keep it open to the public and maintain walking trails and fishing lakes for the community. They also keep up a garden that anyone from Nelson County is welcome to use. The sisters prepare the soil, fence the land, and provide the water.

To improve their ability to care for this land, the sisters of Charity and Loretto have been working with the foresters at Bernheim Forest, an arboretum and research center in nearby Bullitt County. Forester Andrew Berry has walked through hundreds of acres at both campuses to find ways to make their lands more sustainable and friendly to wildlife. At Charity, for example, he helped pull out invasive species to help restore the native oak forestlands.

Berry says the sisters’ enthusiasm for “good eco-stewardship” has impressed him. “Together we manage the forests for both biodiversity and spiritual value.”

He has also been helping both convents create conservation easements— legal agreements that permanently limit the uses of a piece of land—for their land to ensure it will remain protected in perpetuity, should the sisters no longer be there.

This is a reality age and time has forced them to confront, as nearby convents have begun to shut down. In fall of 2015, with only one able-bodied sister left, the sisters of a Carmelite order in Louisville decided to close their convent. They went to the Sisters of Loretto for help.

“The Carmelite Sisters had so much stuff that they couldn’t take with them—all these habits and prayer books and statues that were too old to be of use to anyone, but to them were holy,” Susan Classen told me. Classen is not a sister but a Mennonite co-member who has lived at Loretto’s motherhouse for 23 years. Rather than simply throw away the sacred items, the Sisters of Loretto offered to bury them on their grounds and, in November 2015, held a ceremony at the edge of

their forestlands. When I visited Loretto in December, the grave was still fresh, spilling over with golden dirt.

“One of the Carmelite Sisters spoke about how their life together wasn’t going to continue, and thus God must have something else for them, and that it was time to let go. And then we buried everything.” Susan’s voice broke, and it was obvious she was thinking not only of the Carmelites but her own order. It was impossible not to.

At 58, Classen is outdoorsy and active, but she is one of the youngest members of Loretto. Even though many of the women are incredibly active, the average age overall at the convent is 81. There are 169 vowed sisters, with only 23 under the age of 70, and only two under 50. The numbers are similar for the Sisters of Charity: There are 304 members in the United States and Belize, but only 22 are under the age of 65. Charity’s members are younger in its south Asian monasteries, where only 60 percent of the sisters are over 65, and women still join as young as 18.

Despite health concerns and the trials of old age, many sisters here remain committed activists.

“We see what we are doing with the pipeline as another way to be teachers,” says Sister Antoinette Doyle, referring to the classroom teaching all sisters of Loretto were required to do until 1968. Well into her eighties, Doyle is tiny and delicate, with white hair fluffed around her face. “We’re not classroom teachers as much now, but we teach in the broader way.”

New mountain traditions

Unlike the Sisters of Loretto, the Benedictine Sisters of Mt. Tabor don’t have vast grounds or scores of members. The community is small and intimate, with only eight nuns and one resident oblate—a person who recommits themselves to the Benedictine order every year, rather than taking permanent vows. There was a chore chart on the fridge. Although they work all over the county during the day, the sisters have communal dinners every night after their evening prayers.

Their story begins with [a pastoral letter from three archbishops](#), entitled “This Land Is Home to Me.” The letter, published in 1975, encouraged religious people to move to Appalachia and build places of renewal for people of all faiths.

“Dear sisters and brothers,” the letter reads, “we urge all of you not to stop living, to be a part of the rebirth of utopias, to recover and defend the struggling dream of Appalachia itself.”

Sisters Eileen Schepers and Judy Yunker first read the call while teaching special education classes in a Catholic school in southern Indiana, and both felt inspired by its message. Together they moved to Kentucky in 1979 and founded Mt. Tabor. Originally it was a subsidiary of a larger monastery in Indiana, but it became independent in 2000.

While theirs wasn’t the only convent in the area, Schepers and Yunker found themselves among mainly non-Catholics in a close-knit mountain culture. To break down some of the barriers, they

cast off their billowy black habits and took up jeans and flannel shirts. Over the years, the local people and the sisters have built up a mutual respect and maintain many close relationships.

When Sister Eileen Schepers considers the meaning of sustainability, she talks about the sisters taking their place in a cosmic balance between the community, the planet, and the supernatural.

I saw what that meant in practice one evening in October. In the quiet hour before evening prayer, Sister Eileen chopped onions and peeled potatoes for soup in the sun-swept kitchen. She scraped the veggie peelings into a Kay's Ice Cream bucket by the sink, and sprinkled the potatoes from twin salt and pepper shakers in the shape of smiling nuns.

Around quarter to five, the other sisters started drifting in from jobs, throwing down their briefcases and grocery bags in the doorway before pouring themselves coffee from a thermos. Everyone leaned against the counter, chatting while Sister Eileen spooned biscuit dough onto a baking tray. Just before she put the biscuits in the oven, they all made their way into the chapel for evening prayer.

In the entryway to the chapel, each woman donned long white robes. The garments brought them into a ritual similarity, and it became harder to tell them apart.

Sister Judy officiated at vespers while the sunset over the mountains behind her shone through the glass walls of the chapel. A few men and women sat in the pews, visitors and friends who had wandered in to share the daily tradition. As the prayers ended, we all stood in a circle and Yunker anointed each of our foreheads. Her touch was warm, firm, and personal. We don't touch each other enough anymore, I thought. I began to see how one touch full of loving intention could sustain someone throughout each day, and how that intention could spread outward to their neighbors and the world beyond.

Ending or evolution?

As more and more of the sisters age, who will continue the orders' missions and care for their grounds? Who will stand up for local people, advocate for sustainability, and offer a place of quiet in which to contemplate nature?

Corlia Logsdon believes that local farmers, many of them Catholic, have embraced the nuns' teachings. "I don't think that is going to go away," she said. "But I don't think we could ever replace what they do because they do it with such passion."

Then again, the Kentucky orders may continue to serve their communities for a long time to come. Rather than relying on an influx of young girls graduating from Catholic schools, some of the convents are recruiting nontraditional members. Co-members at Loretto can be male or female, married or single, and Catholic or not, so long as they are committed to peace and justice. Like Susan Classen, co-members can be deeply integrated in the life of Loretto, living at the motherhouse, serving on committees, and fully participating in campaigns for social change.

“Our philosophy of peace and justice will be carried on by the co-members,” said Skees, who worked side by side with Classen to fight the Bluegrass Pipeline.

At Mt. Tabor, the community decided in 2005 to become ecumenical, meaning they accept women from all Christian denominations. They currently have six Roman Catholics, two Episcopalians, and one non-affiliated Christian woman. “It’s deepening our understanding of Jesus’ call to live in unity with one another,” Schepers said.

Even as they reach out for new members, most of the women I spoke with looked forward to the future, whatever trials it may bring. They spoke of acceptance and transformation, bolstered by faith.

“If God is still calling us to be here, then he will direct us as to how that will happen,” Schepers explained. Another sister added that the Benedictine Rule teaches them not to think in terms of permanence, referring to a guide for monastic living that Benedictine monks and nuns have followed for about 1,500 years.

Susan Classen probably expressed Loretto’s attitude toward an uncertain future most succinctly. “We have a lot of letting go to do, and I don’t want to diminish that. But there’s also a sense that we’re part of something new.”

<http://www.yesmagazine.org/people-power/meet-the-jeans-wearing-nature-loving-nuns-who-helped-stop-a-kentucky-pipeline-20160407>

April 12, 2016

Yale Advances in Shaping Portfolio to Address Climate Change

By Geraldine Fabrikant
New York Times

[Yale University](#) has made progress in minimizing its endowment portfolio’s exposure to less environmentally sound investments such as stocks of companies that contribute to [climate change](#), a letter released on Tuesday showed.

Yale generally does not manage its own investment directly but hires outside money managers to make decisions. Nearly two years ago, the Yale University Investment Office asked the firms that managed its endowment, then \$20.8 billion, to assess their investments. The office asked managers to avoid investments that did not take sensible steps to reduce greenhouse gas emissions. The Yale endowment, while not the largest, is closely watched by other universities and money managers who invest in publicly held companies.

On Tuesday, David F. Swensen, Yale's chief investment officer, released a letter to the school's Advisory Committee on Investor Responsibility saying that Yale had taken several steps with climate change in mind.

Rather than simply selling investments as a response to political pressures, Yale was asking its managers to consider the financial risks of climate change and the risks that those investments held if governments did impose carbon taxes. "What we did was to take a look at the economics and come up with an economically driven decision," he said in a telephone interview. Mr. Swensen added that the reaction was heartening.

"When we sent out the letter, one of our energy-focused managers, Arc Financial, did an analysis of a carbon audit of every single energy position in the portfolio and assessed the exposure to more stringent emissions regulation," he said. "They are using it as a tool when they make new investments. They also published a white paper on the issue."

In his letter to the committee, Mr. Swensen pointed out that the firm developed "a framework for assessing, reporting and comparing the greenhouse gas intensity of fossil fuel operations on an apples-to-apples basis."

Two of Yale's other money managers had positions that were not consistent with Yale's approach, Mr. Swensen wrote. One held a small position in a company that engaged in the production and sale of coal. Another had interests on Yale's behalf in two publicly traded [oil sands](#) producers. Though the investments were valued at only \$10 million in total, those positions have since been sold.

While it would not have been as easy for Yale to sell investments in individual companies because it does not manage most of its money internally, it still has some separate accounts that would allow the endowment to sell those stocks as it did when it sold holdings in South Africa and Sudan some years ago.

For example, the Yale endowment was close to making an investment in an energy company. "That investment had even been approved by the endowment's board," Mr. Swensen said. "But when we sat down with the company and brought up these issues, they denied it was a problem, so we did not go forward with the investment."

The move came out of growing pressure from [students concerned about environmental issues](#). Some universities have divested themselves of fossil fuel stocks, while others have resisted action, arguing that they do not want to terminate a dialogue with such companies.

Mr. Swensen pioneered the use of alternative investments in such areas as hedge funds. Over the 20-year period that ended June 30, 2015, Yale had the strongest performance record in the endowment world. For that fiscal year, [Yale turned in an 11.5 percent increase](#), bringing its endowment to \$25.6 billion.

Mr. Swensen's average return over 10 years ending June 2015 was 10 percent, slightly eclipsed by returns at M.I.T., Bowdoin College and Princeton. At each of those schools, the endowment is led by a manager who trained under Mr. Swensen in the investment office at Yale.

Mr. Swensen recalled that the initial approach came up after Yale decided that it would not simply ask managers to sell shares in companies under question. Yale's president, Peter Salovey, asked Mr. Swensen what the school could say, and the investment office came up with this plan.

<http://www.nytimes.com/2016/04/13/business/energy-environment/yale-advances-in-shaping-portfolio-to-address-climate-change.html>

April 12, 2016

Yale to partially divest from fossil fuels

By Finnegan Schick
Yale Daily News

Almost two years after Chief Investment Officer David Swensen added climate change awareness to Yale's investment strategy, the endowment is starting to divest from fossil fuels.

In a Tuesday letter to the Yale community, Swensen reported that after months of talking with Yale's external investment managers about the potential risks associated with investments in coal, oil, around \$10 million of the endowment has been removed from two publicly-traded fossil fuel producers. Although Swensen did not release the names of the investment managers or companies involved, he said that by the end of Fiscal Year 2015, Yale's \$25.6 billion endowment had only minor exposure to the oil and coal industries.

"A few managers held positions we felt were inconsistent with our principles," Swensen wrote. "Thermal coal miners and oil sands producers are two of the obvious industries that would suffer if regulation imposed the social cost of the carbon emissions on producers."

In August 2014, two of Yale's external managers were investing the endowment in industries that Swensen said were inconsistent with Yale's principles. These included thermal coal miners and oil sands producers.

At Swensen's prodding, both managing firms sold their coal and oil sands holdings. The founder of one of the firms agreed climate change and carbon pricing were "unknowable risks and fossil fuel producers with significant carbon footprints were declining businesses, a profile the firm preferred to avoid."

Yale's investment strategy combines in-house endowment management with a host of external investment managers. Swensen's letter suggests that these external managers have listened to and showed support for the recommendations Swensen made in 2014. But instead of arguing for divestment on ethical grounds, as Fossil Free Yale has in the past, Swensen said the shift from

some fossil fuel industries makes financial sense because regulations on the social cost carbon emissions could hurt industries like coal and oil.

“The Investments Office believes the risks of climate change, like any risks, should be incorporated in the evaluation of investment opportunities,” Swensen wrote. “Initiating and continuing a dialogue with our managers about those risks results in more thoughtful consideration of investment opportunities, higher quality and lower risk portfolios for Yale, and better environmental outcomes.”

While climate activists have condemned Yale’s holdings in fossil fuel industries, Swensen said Yale’s investment managers should also consider the implications of climate change when evaluating farmland acquisitions in southern locations or the risks of owning low-lying coastal real estate, which could be vulnerable to rising sea levels.

For almost five years, student groups like Fossil Free Yale have urged the University to divest completely from the fossil fuel industry.

Yale’s endowment saw a 11.5 percent return in Fiscal Year 2015.

<http://yaledailynews.com/blog/2016/04/12/yale-begins-divestment-from-fossil-fuels/>

April 14, 2016

A Radical Alliance of Black and Green Could Save the World

But first the two movements will have to rediscover their shared roots in a fundamental critique of an economy and a society that value things more than lives.

By James Gustave Speth and J. Phillip Thompson III
The Nation

A beautiful thing is happening: Advocates for racial justice and for environmental protection—too often, movements quite distant from each other—are coming together in a new way. One can see it in the campaign of [National People’s Action](#) and the [Climate Justice Alliance](#) to push for a just and locally empowering transition to clean energy; in the [New Economy Coalition’s](#) inclusive membership and commitment to front-line communities; and in the projects of the Evergreen Cooperatives, in inner-city Cleveland. These new efforts (may they multiply!) are grounded on a strong foundation. When one explores the roots of both the environmental and civil-rights movements, one finds a strikingly similar radical critique. Both movements have called for a deep restructuring of society and the economy; in both cases, that call is based on an affirmation of life and the devoted care that life requires of us.

There is urgency in this fusing. Environmentalists must confront a haunting paradox. Our environmental organizations have grown ever stronger, more sophisticated, and better funded, winning many battles along the way. Yet, 46 years after the first Earth Day, we find ourselves on

the cusp of a ruined planet. Climate change is bearing down on us, with dire consequences that disproportionately impact the poor. Around the world, we are losing biodiversity, forests, fisheries, and agricultural soils at a frightening rate. Fresh-water shortages multiply. Toxins accumulate in ecosystems and in our bodies. Something is terribly wrong, and more of the same cannot be the answer. It's time for environmentalists to reassess and reboot. It's time for a new environmentalism.

One can begin by asking: What is an environmental issue? We'd say that an environmental issue is any issue that affects environmental performance. When answered that way, environmental issues must include our failing political system and the erosion of democracy; the pervasive economic insecurity that paralyzes political action; and the materialistic, racially divisive, and completely anthropocentric values that dominate our culture. Environmental degradation is also driven by the triple imperatives of GDP growth at almost any cost, sustained corporate profits, and the projection of national power around the world.

These are among the root causes of our environmental decline, and if American environmentalists ever hope to succeed, we must find ways to address these systemic issues, which our movement has largely ignored. Environmentalists must revive our legacy of radical critique. In the movement's early days in the 1960s and '70s, those at the forefront asserted the need for a radical restructuring of the economy and society. Ecologist [Barry Commoner](#) was not alone in asking, in his 1971 best seller *The Closing Circle*, whether the operational requirements of the capitalist system are compatible with ecological imperatives. Commoner's answer was no: If we do the right things for the environment, he argued, it's difficult to see how today's economic system could continue to operate, as dependent as it is on accumulation and growth.

Ideas like these motivated many of us as we set out to build the modern environmental movement. Reviving these ideas will require a new democratic politics, one that reasserts the ascendancy of people power over money power and moves us far away from the plutocracy and corporatocracy we see today. Rebuilding people power requires a fusion of progressive efforts, which means that progressives of all stripes must come out of our individual silos to build an unprecedented social movement.

Many of us who took up the environmental cause in the late 1960s drew our primary inspiration from America's black community and its struggle for civil rights. We had entered college when the civil-rights movement was in full swing; those of us who went on to law school studied civil-rights litigation and legislation. We had seen the impact of social movements, of citizens standing up and speaking out. We regained faith in government's ability to do great good. The civil-rights movement and the '60s generally had taught us that activism could succeed, that government could succeed, that wrongs could be righted.

How do we overcome our tragic legacy of subordination of nature to humans and humans to other humans?

A great tragedy, looking back, is that the booming environmental movement of the 1970s didn't build on this civil-rights connection. Instead of forging relationships with communities of color, our movement became—for a long period—a movement composed heavily of middle-class

whites. The more recent emphasis on environmental-justice concerns has helped build a bridge between environmentalists and communities of color. But the environmental and racial-justice movements remain distant, without major dialogue between them. In a world where there is a premium on a melding of progressive forces, this situation is doubly unfortunate.

As in the environmental world, many in the black community are seeing limits to traditional advocacy. Achieving equal legal rights has enabled a small black upper-middle class to prosper, but it hasn't prevented a widening wealth gap between most blacks and middle-class whites (not to mention the superrich). Nor has it prevented the reemergence of a racialized, two-tiered educational system or the mass criminalization of black youth. Faced with this realization, a number of black leaders, from grassroots organizers (such as those involved with Black Lives Matter and the Moral Mondays movement) to scholars, are calling for a rediscovery and revitalization of the civil-rights movement's radical roots to address the deeper structural issues that America confronts.

The modern civil-rights movement had its origins in black advocacy before the Civil War, when radical activists called for a fundamental reordering of American society, beginning with its values. Martin Luther King Jr. turned increasingly to these broader issues in his later years. In his last presidential address to the Southern Christian Leadership Conference in 1967, King called upon his followers to "honestly face the fact that the movement must address itself to the question of restructuring the whole of American society. There are 40 million poor people here. And one day we must ask the question, 'Why are there 40 million poor people in America?' And when you begin to ask that question, you are raising a question about the economic system, about a broader distribution of wealth. When you ask that question, you begin to question the capitalistic economy. And I'm simply saying that more and more, we've got to begin to ask questions about the whole society. We are called upon to help the discouraged beggars in life's marketplace. But one day we must come to see that an edifice which produces beggars needs restructuring." Shortly after this address, King launched the Poor People's Campaign.

Recently, Cornel West has brought together a remarkable collection of King's speeches and writings. In his book [*The Radical King*](#), West notes that later in his career, "King's dream of a more free and democratic America and world had morphed into, in his words, 'a nightmare.'... He called America a 'sick society.' At one point, King cried out in despair, 'I have found out that all that I have been doing in trying to correct this system in America has been in vain. I am trying to get at the roots of it to see just what ought to be done. The whole thing will have to be done away with.... Are we integrating into a burning house?'" The last years of King's life were devoted to reviving the radical roots of the civil-rights movement—and his own.

There is something profoundly hopeful in these calls to rediscover the civil-rights movement's radical roots. Though they're important in their own right, they are also important for environmentalists and the future of the environmental movement, and for progressivism generally.

Of course, the black struggle in America includes many strong currents of radical thought and action, more than in the environmental movement. Still, their shared roots are apparent, and the best traditions of both movements are very much aligned. Both see the origin of our country's problems in the system as a whole: in capitalism and the values and institutions that support it. As King said, the whole edifice needs restructuring. The operating system by which we live and work is programmed for the wrong results, and it needs to be reprogrammed so that it genuinely sustains and restores human and natural communities. This task is daunting, but it is also rich with opportunity as a powerful basis for dialogue and collaboration between two of our country's greatest social movements—one that holds the potential for a common language, a common critique, and a common agenda.

And there's an even deeper and more profound set of considerations that unite black and green. Early crusaders for black freedom took special aim at the worldview and values that enabled a rapacious form of capitalism—the slave system—to emerge and flourish. Unlike later theories of socialism, which focused blame for economic inequality and racial divisions on economic self-interest and power differentials between classes, advocates like Sarah Grimké and Frederick Douglass emphasized the cultural origins of inequality and oppression—in precapitalist religion, in philosophy, and in social attitudes and prejudices. They held that there could not be a fundamental change in the economic or social system without a simultaneous revolution in deeply held values. Much later, King would revive the call for “a radical revolution of values.” He spoke with clarity about what was at stake: “We must rapidly begin the shift from a ‘thing-oriented’ society to a ‘person-oriented’ society. When machines and computers, profit motives and property rights are considered more important than people, the giant triplets of racism, materialism, and extreme militarism are incapable of being conquered.”

For King, “other-preservation is the first law of life. It is the first law of life precisely because we cannot preserve self without being concerned about preserving other selves.” He was referring to other humans, whereas environmentalists consider nature as the *other* about which humans must be concerned. Yet these two imperatives are ineluctably intertwined. The subjugation of nature and its life creates the pretext for the subjugation of human beings. Human dignity cannot be restored fully without first displacing the God-like status that Western thought has bestowed on some at the expense of others, as well as our instinct to sort life into hierarchies of value. Full dignity requires that humans be reconnected to each other and to the natural world that sustains all life.

* * *

The environmental movement criticizes the separation of human beings from the natural world and the treatment of nature as existing to serve human ends. This separation has strong roots in the Western tradition, from Aristotle to the Bible. The Genesis “dominion” mandate, for example, served the cause of elevating humans over nature and has had a powerful influence down through the centuries, an influence that efforts like the Forum on Religion and Ecology have sought vigorously to counter.

The cultural historian Thomas Berry has described the European settlement of North America as “a clash between the most anthropocentric culture that history has ever known with one of the

most nature-centric cultures ever known.” European settlers in the Americas made a major distinction between themselves, whom they declared were created in God’s image, and indigenous peoples and Africans, whom they regarded as less than fully human. The escaped slave and abolitionist revolutionary Henry Highland Garnet, addressing a black audience in 1848, said, “Brethren, your oppressors...endeavor to make you as much like brutes as possible.” King noted that “a nation that will keep people in slavery for 244 years will ‘thingify’ them and make them things.”

This attitude of control and dominion over “soulless” matter and animals, including “inferior” nonwhites, is an evil embedded deeply in the culture of modern society. It also haunts and weakens our democracy. Absent genuine solidarity across racial groups, democracy can easily degenerate into a tyranny of the majority, as it has for much of American history. Unless we counter the white-supremacist attitude of control and domination over both nature and nonwhite others, the cross-racial solidarity we need in order to deepen democracy, change the economy, and save the environment will continue to elude us.

* * *

Civil-rights activists were fond of saying that all human destiny is intertwined. What many indigenous philosophies teach is that the destiny of *all* life is intertwined. In 1977, the elders of the Iroquois Confederacy issued a remarkable statement, “Basic Call to Consciousness: Address to the Western World”: “The Hau de no sau nee, or the Six Nations Iroquois Confederacy, has existed on this land since the beginning of human memory.... Our essential message to the world is a basic call to consciousness. The destruction of the Native cultures and people is the same process which has destroyed and is destroying life on this planet. The technologies and social systems which have destroyed the animal and plant life are also destroying the Native people.... It is the people of the West, ultimately, who are the most oppressed and exploited. They are burdened by the weight of centuries of racism, sexism, and ignorance which has rendered their people insensitive to the true nature of their lives.... The people who are living on this planet need to break with the narrow concept of human liberation, and begin to see liberation as something which needs to be extended to the whole of the Natural World.”

How do we overcome our tragic legacy of subordinating nature to humans and humans to other humans? Surely one step is to see this historical pattern for what it is: the product of profound arrogance. Love, care, respect—we owe these to each other and to the natural world, and their common wellspring is an attitude of the heart, an abiding humility, awe, and reverence in the face of life’s wondrous creations: the very opposite of arrogance.

* * *

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<http://www.thenation.com/article/a-radical-alliance-of-black-and-green-could-save-the-world/>

April 18, 2016

A Western Soto Zen Buddhist Statement on the Climate Crisis

Soto Zen Buddhist Association
Press Release

Today it is our responsibility as Buddhists and as human beings to respond to an unfolding human-made climate emergency that threatens life.

This statement is a Zen Buddhist perspective on the climate emergency, expressing deep concern and pointing towards actions to halt and reverse climate change. It is a first step.

This statement is a unique collaboration among Soto Zen Buddhists in the west. Soto Zen, with its Japanese roots in the 13th century teachings of Eihei Dogen, emphasizes *zazen*, or seated meditation, developing a down-to-earth awareness of one's own mind as expressed in all areas of daily life — at home, at work, and in society.

Among the largest of Japan's Buddhist denominations, Soto Zen was brought to the west by teachers like Shunryu Suzuki Roshi, Taizan Maezumi Roshi, Dainin Katagiri Roshi, Jiyu Kennett Roshi, and other spiritual pioneers creating Zen centers throughout the continent. The members and teachers of these centers are deeply concerned about the fate of the earth, of our children, of their children, and all beings. The statement argues:

There is an uncontested scientific consensus that our addiction to fossil fuels and the resulting release of massive amounts of carbon has already reached a tipping point. The melting of polar ice presages floods in coastal regions and the destabilization of oceanic currents and whole populations of sea life...Severe and abnormal weather bring devastating hurricanes and cyclones around the world. Eminent biologists predict that petroleum-fueled "business as usual" will lead to the extinction of half of all species on Earth by the close of the twenty-first century.

This statement is signed by Rev. Gengo Akiba, who serves as *sokan* (or bishop) of the Japanese Sotoshu (or School) in the U.S., and as head of the Association of Soto Zen Buddhists (ASZB), representing more than 100 Zen priests authorized by Sotoshu headquarters in Japan. It is jointly signed by Rev. Hozan Alan Senauke, president of the Soto Zen Buddhist Association (SZBA), representing western Zen priests recognized in

North America. This is the first time these organizations have collaborated on an urgent social issue.

Coming on the heels of the December 2015 United Nations Climate Conference in Paris and Pope Francis's landmark encyclical *Laudato Si: On Care for Our Common Home*, this statement intends to spur a wider discussion in Zen centers and communities, as well as encouraging denominations and religious communities of all faith traditions to express themselves about the fate of the earth.

Please share the statement with your community, friends, and local environmental and interfaith activists. Let us know how your community is addressing the climate crisis and how we might be of support to you

Peace & Dharma,
Hozan Alan Senauke

You can read the statement here:

<http://szba.org/a-western-soto-zen-buddhist-statement-on-the-climate-crisis/>

For further information, contact the Soto Zen Buddhist Association

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April 18, 2016

Delivering on the Promises of Paris: Why the World's Muslims Are Demanding Climate Action Now

By Naser Haghamed, CEO of Islamic Relief Worldwide, an independent humanitarian and development organisation with a presence in over 40 countries worldwide
Huffington Post

The global Muslim community - made up of around 1.6 billion followers from world leaders to academics, from teachers and healthcare workers to business people and investors - has incredible collective power. Islam is the [fastest-growing religion](#): 1 in 5 people today are Muslim, and Muslims will make up around 30% of the global population in 2050. As the newly appointed CEO of the world's largest Islamic humanitarian and emergency relief NGO, I have witnessed this collective power harnessed to achieve immense and noble things, from providing shelter and relief to victims of floods and earthquakes to [supporting](#) refugees from war-torn countries. However, one longstanding crisis constantly threatens to undermine our efforts to make the world a safer place to live in: climate change. With world leaders gathering in New York on April 22nd to reaffirm the commitment they made to end the fossil fuel era in Paris last December, it is time for a reminder of just how important it is that they turn their promises into action without delay.

We can't fall into the trap of thinking that climate change is a problem for the next generation whose effects won't be felt for years. Climate change is devastating the world. Now. Many Muslim majority countries are on the front lines: a recent [report](#) from the Asian Development Bank showed that in Indonesia, the world's largest Muslim country and the fourth largest country in the world by population, climate change and the floods it causes are turning the poor into the 'ultra-poor'. Most of the Middle East and North Africa is expected to become [hotter and drier](#) due to climate change, worsening droughts and exposing millions to water shortages. These changes provoke migration to other countries themselves facing resource deficiencies aggravated by climate change, thereby increasing the risk of violent conflict. This, and the ever-growing death toll among the world's poorest who have contributed least to greenhouse gas emissions, are unjust realities with which we are all too familiar at Islamic Relief.

Whilst more and more Muslims are experiencing the ravages of climate change first hand, more Muslims and governments are in turn starting to join the fight against climate change. Last August, Muslim scholars, experts and activists from over 20 countries [called](#) on the world's Muslims to act on climate, with a particular demand to governments to move away from fossil fuel sources of energy and towards societies where 100% of energy is provided by renewable sources such as solar and wind - resources which many Islamic countries have in abundance - as early as possible. There is nothing radical in the claim that acting on climate change is a fundamental part of Islam: we know from the Qur'an that Allah has made each of us a steward (khalifah) of the earth - a 'precious home' with finite resources - in order to maintain its delicate equilibrium (mizan). The fossil fuels that once brought us prosperity are now destroying this equilibrium and our prosperity along with it.

In January this year, the Islamic Development Bank [agreed](#) with the United Nations Environment Programme (UNEP) to use Islamic finance to combat climate change and food insecurity. Days later, in February, the world's largest solar power plant [opened](#) in Morocco and could provide enough energy to power over 1 million homes by 2018. At the beginning of April, Saudi Arabia's Deputy Crown Prince [announced](#) the country's intention to create a \$2 trillion megafund to help it transition to the post-oil era. Islamic Relief has also done its bit, building solar-powered homes in places like Bangladesh - the most disaster prone country in the world - and installing water harvesting systems in Kenya. However, the scale of the problem is so large that it will require a huge increase in efforts from Muslims and non-Muslims alike in solidarity.

That is why, together with 270 faith leaders, I have today issued an urgent call to faith communities around the world to divest their money from fossil fuels and reinvest it in renewable energy solutions. Together, we will reduce emissions in our homes, workplaces and centers of worship, standing in solidarity with those communities already facing the severe consequences of climate change. Such is my conviction, that on April 22nd, the day that a [record number](#) of countries will meet at the UN Headquarters in New York to sign the Paris Agreement, Islamic Relief Worldwide will be helping to launch a global Muslim network dedicated to tackling climate change issues in the Islamic world and will present the Islamic Climate Change Declaration to the President of the United Nations General Assembly, H.E. Mogens Lykketoft. To show they are equally serious, countries must implement the Paris Agreement as soon as possible, phasing out the astonishingly high fossil fuel subsidies that the International Monetary Fund [estimated](#) would be \$10 million every minute in 2015, and endeavoring to peak greenhouse

gas emissions by 2020 to give us the best chance of going 100% renewable and to keep the global temperature rise to 1.5 degrees celsius above pre-industrial levels to avoid the worst effects of climate change.

We must urge world leaders to make a real difference to prevent climate change and help people of all faiths and none to adapt to the climate change that we are already experiencing, in accordance with Islamic teachings. Much is already being done by both governments and citizens, but we are not fulfilling our collective potential. With the World Humanitarian Summit taking place in Istanbul in May and the implementation-focused sequel to last December's successful conference in Paris taking place in Morocco in November, 2016 has to be the year that the world starts delivering on its promises in earnest, before we lose further lives in the fight against climate change.

http://www.huffingtonpost.com/naser-haghamed/delivering-on-the-promise_b_9717634.html

April 18, 2016

250 Faith Leaders Demand Nations Ratify Paris Climate Deal

By Jeremy Deaton & Jack Jenkins
Think Progress

Former U.N. climate chief Christiana Figueres has credited faith groups for helping to advance the Paris Climate Agreement by supporting “holistic, equitable, but above all, ambitious climate action.”

Now, faith leaders are going one step further, calling for immediate ratification of the landmark international accord to curb global climate change.

In December, 196 nations [adopted](#) the Paris Agreement, which aims to limit warming to well below 2° C (3.6° F) above pre-industrial levels. While nations have agreed to the language of the accord, [55 parties](#) to the U.N. Framework Convention on Climate Change representing at least 55 percent of total greenhouse gas emissions must still ratify the agreement for it to enter into force.

Monday's [Interfaith Statement on Climate Change](#) urges “all Heads of State to promptly sign and ratify the Paris Agreement.” More than 80 groups and 3,600 individuals of Jewish, Buddhist, Hindu, Christian, and Muslim faith have signed on, including the Dalai Lama, the head of the World Council of Churches and several Catholic cardinals. The declaration was assembled by a coalition of environmentally-minded religious organizations.

“The time for action is not five years from. It's not 10 years from now. It's now,” Rev. Fletcher Harper, Executive Director of [Greenfaith](#), said in an interview. “I think that is our request and our deep desire, more than anything else, is that our leaders lead.”

The statement advocates the swift reduction of heat-trapping greenhouse gas emissions. It also calls for 100 percent renewable energy by 2050 and financing to help developing nations adapt to the hazards of a changing climate: persistent drought, extreme heat, dangerous storms, and rising seas.

“Climate change is hugely consequential for the developing world, where many countries have started to climb out of absolutely horrendous poverty to begin to enjoy a more decent life,” said Harper. “You’ve got storm activity that threatens to destroy the infrastructure that countries have begun to build. You’ve got previously fertile agricultural regions becoming drought-stricken and barren. Climate change puts poverty on steroids.”

[According to a 2014 survey](#) from the Public Religion Research Institute, majorities of most major American religious group — including 82 percent of Jewish Americans, 76 percent of black Protestants, and 69 percent of Hispanic Catholics — agree that dealing with climate change now will help prevent future economic problems. And while groups such as white evangelical Protestants remain skeptical of environmental science, even they are [beginning to accrue widespread support](#) for action on climate change.

In the lead-up to Paris negotiations, [1.8 million](#) people signed faith-based petitions calling for climate action. Leaders of the all of the world’s major religions made statements, most notably, Pope Francis, who wrote that the climate “is a common good, belonging to all and meant for all.”

EPA Administrator Gina McCarthy said the pope’s encyclical on climate change was a “game changer.” According to a report from the Yale Program on Climate Change Communication, [17 percent](#) of Americans say the pope’s stance on global warming has shaped their view of the issue.

Climate change puts poverty on steroids

In a statement prior to the Paris negotiations, U.N. Secretary General Ban Ki-Moon said Pope Francis and other faith leaders reminded the world that “we have a moral responsibility to act in solidarity with the poor and most vulnerable who have done least to cause climate change and will suffer first and worst from its effects.”

Indeed, along with Francis’ [groundbreaking, scientifically supported](#) encyclical, Monday’s letter is the latest in a litany of first faith-based clarion calls asking world leaders to take action on climate change. In August 2015, a group of Islamic leaders from more than 20 countries [published a sweeping declaration](#) demanding nations to phase out the use of fossil fuels. In 2015 alone, the World Council of Churches, Unitarian Universalists, [Union Seminary](#), and [the Episcopal Church](#) all divested from fossil fuels, and the Church in England divested \$19 million from tar sands. The Vatican, for its part, also convened two recent gatherings on climate change: a [five-day summit with on sustainability](#) in 2014 that gathered microbiologists, economists, and legal scholars, to discuss the challenge of specifically on climate change, and [another in 2015](#) where U.N. Secretary General Ban Ki-moon delivered the opening address.

The sustained efforts of faith groups may prove vital to the success of the Paris Agreement. The pact sets out a long-term goal of net zero carbon emissions and includes a regular review process to ramp up countries' carbon-cutting ambitions. It will be the task to advocates, including members of the faith community, to push policymakers to fulfill their commitment under the accord.

"We need all hands on deck to meet the climate challenge," said Ban Ki-Moon in a recent statement. "Cities, schools, the business and investment communities, faith groups — all have a role to play."

Now, that means pressing for the hasty ratification of the Paris Agreement, a first step on the long road ahead.

<http://thinkprogress.org/climate/2016/04/18/3770408/interfaith-climate-statement-paris/>

April 18, 2016

Maasai winner of environment prize protects land from grabbers

By Kizito Makoye
Reuters

DAR ES SALAAM, April 18 (Thomson Reuters Foundation) - Dressed in his traditional red shawl, Edward Loure was watching over a herd of cattle grazing on dew-laden grass when he heard that his efforts to protect land rights had earned him one of the world's most prestigious environmental prizes.

The 44-year-old Maasai community leader in Tanzania's northern Manyara region is among six winners of the Goldman Environmental Prize, the world's largest award for grassroots campaigners, presented on Monday in San Francisco.

"I am very humbled to receive this honour, it's a great honour for the entire Maasai and Hadzabe community," Loure said of the prize which was also awarded to activists from Cambodia, Slovakia, Puerto Rico, the United States and Peru.

Seeing the indigenous people of northern Tanzania come under increasing pressure from commercial interests, Loure, who keeps more than 200 cattle, decided more than a decade ago to take action to protect his people's land and way of life.

"Some people call this land a 'conservation area', but for me and my family this is our home," he told the Thomson Reuters Foundation.

Semi-nomadic Maasai herders and hunter-gatherer Hadzabe communities in Tanzania's northern rangelands have lived side by side with wildlife for centuries, co-existing peacefully and safeguarding the region's fragile ecological balance.

However, rising numbers of large-scale land deals in Africa are pitting indigenous people against investors. Resource and tourism projects may have brought money and jobs but campaigners say marginalised communities face loss of land as well as the ability to practise traditional land management techniques.

For Loure, armed with both indigenous knowledge and a university degree in management, protecting his community and its ancient culture became his life's goal.

Working with the Ujamaa Community Resource Team (UCRT), a grassroots land rights group in northern Tanzania, he began to examine tenure documentation to fight for land security.

Knowing a lack of official titles would let outsiders grab land they considered to be unclaimed, Loure set about formalising land rights for the Maasai and Hadzabe.

ANCIENT TRADITIONS

Loure and UCRT pioneered an approach that gives land titles to indigenous communities instead of individuals using a provision called the Certificate of Customary Right of Occupancy (CCRO) from the Tanzanian Village Land Act.

"I had what it takes to fight for the marginalised community's land rights to ensure that their territory is protected from land grabbers," he said.

"We identified specific areas for hunting, gathering and grazing. Then we prepared all the documents and through lobbying and advocacy, we finally achieved ownership of our land."

One of the oldest surviving cultures on earth, the Hadzabe have been living by hunting and gathering for some 40,000 years.

Although it was not common for a cattle-raising Maasai such as Loure to work on behalf of the Hadzabe people, he won their trust and a reputation for openness and fairness.

By 2013, after nearly a decade of work, Loure had secured more than 200,000 acres of land for the Maasai and Hadzabe using CCROs.

Loure also negotiated an agreement between the Hadzabe group and a non-profit environmental organisation, Carbon Tanzania, so the local community could be paid for the carbon sequestered in their forests.

Securing land rights has assured the survival of the Hadzabe people and their hunter-gatherer lifestyle, while generating modest revenue from carbon credits and carefully managed cultural tourism.

"The Hadzabe have a very rich culture that will be lost if their land is taken away from them," said Loure.

"They are very clever and have expertise in animal tracking, making traditional weapons to hunt and gather fruits, roots and honey from the forest."

NOMADS

Born to a Maasai tribe, Loure grew up in the Simanjiro plains, where his family led a peaceful nomadic life, raising their cattle among wildlife such as wildebeest and zebra.

In 1970, the Tanzanian government sealed off part of their village land to create Tarangire National Park and forcibly evicted the Maasai living within the park's boundaries.

Since then the Maasai have lost more than 150,000 acres of rangeland across northern Tanzania. Population growth and commercial demands have put pressure on areas managed by the Maasai and Hadzabe, often perceived as 'empty', said David Gordon, Executive Director of the Goldman Environmental Foundation.

Loure's success has inspired other indigenous groups to use the same strategy to protect land, and he is working to secure rights for communities to secure more than 970,000 acres of land, mostly in northern Tanzania.

"This work is challenging but all in all I love what I do: everything is done with the aim of seeing ways to help the pastoralists and the community," he said. (Editing by Ros Russell; Please credit the Thomson Reuters Foundation, the charitable arm of Thomson Reuters, that covers humanitarian news, women's rights, trafficking, property rights and climate change. Visit news.trust.org)

<http://www.dailymail.co.uk/wires/reuters/article-3546179/Maasai-winner-environment-prize-protects-land-grabbers.html>

April 20, 2016

“We have to move now”: Islanders watch as their home disappears in the sea

By Mark Bowling
The Catholic Leader

ALMOST 6000 islanders to Australia's north face forced evacuation as they watch their low-lying Pacific homelands disappear under rising seas.

Their plight amounts to just a drop in the ocean, and yet these island people take solace from Pope Francis' call for action on climate change and the environment, and for the dignity of displaced persons.

The communities of four atoll groups – Carteret Islands, Mortlock Islands, Tasman Islands and Fead Islands – have already started moving to neighbouring Bougainville, because storm surges flood their islands, eating away their beaches and coastal lands, and washing away their food gardens.

On some of the most populated atolls deep wells are already contaminated by salt water and the people are forced to rely on coconut water and rainwater for drinking and everyday use.

The closest of the islands are more than 80km from Bougainville, which is an autonomous region of Papua New Guinea.

“I love my islands, we live by the sea and they provide for us every day, but we have to move now,” Ursula Rakova, a Catholic woman who was born in the Carterets, said.

“We are already suffering the impacts of climate change and rising sea levels – this is a matter of life and death.”

Ms Rakova heads the organisation, Tulele Peisa, which means “Sailing in the wind on our own”, and has the task of shifting displaced island families.

Ten families from the Carteret Islands have already moved to a 48ha plantation on Bougainville, donated by the Catholic Church.

But 140 families remain on the atolls, which are their traditional homes.

Ms Rakova is one of two island leaders visiting Australia on a speaking tour, pleading for government and community aid – in the name of respect and dignity.

She has described the loss of their homelands and their livelihoods, which has reduce them to amongst the world’s poorest people, and forced their displacement.

Ms Rakova took solace in Pope Francis’ 2015 encyclical on the environment Laudato Si (Praise Be), which highlighted the plight of those suffering directly from climate change.

The Pontiff called for “decisive action, here and now”, to stop environmental degradation and global warming, and argued that environmental damage was intimately linked to global inequality.

“We know how unsustainable is the behaviour of those who constantly consume and destroy, while others are not yet able to live in a way worthy of their human dignity,” Pope Francis wrote.

During her visit to Australia, Ms Rakova is accompanied by Pais Taehu, a traditional chief from the Tasman Islands, the most far-flung of the island groups off Bougainville, and which support a population of 1500 people.

“We are affected the same way as the Carteret Islands. One day, somehow, whether we like it or not, we will have to move,” Chief Pais, who is chairman of the Temarai Association, a voice for the welfare of the outer atolls people, said.

“In the long run, it is better to act now than waiting for anything to happen.”

While the atoll peoples face the full force of climate change, Ms Rakova was critical of some of the international efforts to help her people.

“There have been training teams, research projects, media series, studies by lawyers – 27 programs – aimed at disaster risk reduction, such things as building up the sea walls and the gardens to stop saltwater intrusion and planting mangroves,” she said.

“Sea walls could cost billions of dollars. Replanting mangroves could take 10 years. In the meantime what do the island people do? Get drowned? Float in the sea? Eat sponges from the sea?

“It is important that we can master our own destiny. We want to accept assistance, but on our own terms. We know the situation on the ground and what needs to be done.”

Ms Rakova said she accepted that climate change had caused irreversible loss and damage to her islands and that displacement was inevitable.

She said funding would be better directed towards relocating people to the mainland, finding appropriate land and building houses.

“My vision is that Carteret Islanders are living sustainable livelihoods and are safe and secure wherever they are – that they have enough land space to grow food and cash crops to sustain their family incomes,” Ms Rakova said.

She singled out Caritas Australia and Catholic Mission as amongst the humanitarian organisations which had delivered focused and practical assistance so far.

This included providing agricultural projects on the mainland. But in a direct plea to government, community groups and individual benefactors, she said building mainland houses for the Carteret Islanders would cost about \$8500 each or about \$1.6 million for the islands’ 150 families.

“That is not a big cost for a neighbour as big as Australia,” she said.

Ms Rakova said direct support for community-based relocation projects like Tulele Peisa was better than aid money being channelled through government projects.

Caritas Australia’s chief executive officer Paul O’Callaghan said, as one of the highest per capita emitters in the world, Australia had a special responsibility to show leadership in mitigating and preventing the negative impacts of climate change in the Pacific region.

Federation of Catholic Bishops Conferences of Oceania executive committee president Archbishop John Ribat of Port Moresby, said he was heartened by growing world concern about climate change and global warming.

“Pope Francis in his recent encyclical *Laudato Si* invites – indeed urges – the global human family to see our planet and its peoples as our universal home,” he said.

“The protection of the atmosphere and the oceans are powerful examples of the need for political representatives and leaders of nations to take responsibility for the wellbeing of peoples beyond their own particular shores or borders.”

Australian Religious Response to Climate Change president Thea Ormerod said ratifying the Paris Agreement was a first step for Australia to do its fair share of accelerating the shift to low-carbon technologies and building resilience in vulnerable countries.

“In many places across this fragile planet of ours, global warming is no longer just a theory. It is destroying lives and livelihoods,” she said.

Donations can be made directly via an account for Tulele Peisa administered by the Sisters of Mercy, Brisbane. Email Sr Wendy Flannery at wendy.flannery@gmail.com.

<http://catholicleader.com.au/news/we-have-to-move-now-islanders-watch-as-their-home-disappears-in-the-sea>

April 21, 2016

In Photos: The Indigenous Protectors of the World's Most Sacred Places

All around the world, sites sacred to indigenous people are besieged by mining, tourism, and other threats. Meet the groups safeguarding and restoring them.

By Christopher McLeod
YES! Magazine

Back in the 1990s, there was an intense debate among my Native American friends about whether public education about sacred places would be a good idea. One activist argued forcefully that: “Sacred places don’t need a PR campaign. They need ceremony and prayer.” But many places, from the San Francisco Peaks and Black Mesa in the Southwest to Bear Butte and Devils Tower in the Black Hills, were being desecrated. Ski resorts. Coal stripmines. New Agers. Rock climbers. Dams. While some battles revealed outright racism, other sacred sites were being destroyed out of ignorance. Though tradition long mandated that “sacred” meant “secret,” more people began to agree that limited information about sacred places should be shared in order to nurture understanding, build respect, and inspire allies.

“We use the word ‘sacred.’ That’s not an Indian word. That comes from Europe,” Onondaga elder Oren Lyons explained to me during an interview for the [Standing on Sacred Ground](#) film series. “It comes from your churches. We have our own way to say things. The way we use it, it’s a place to be respected, a place to be careful.”

Around the planet, indigenous communities still guard their sacred places—mountains, springs, rivers, caves, forests, medicinal plant gardens, burials of beloved ancestors. Everywhere it seems these places are under siege. Each attack is met with a spirited defense because sacred places anchor cultures. They provide meaning. They give life, give information, heal, and offer visions and instructions about how to live, how to adapt, how to be resilient.

There have been many inspiring victories. At Kakadu in Australia, Aboriginal leaders stopped uranium mining and protected a World Heritage Site. At Devils Tower in Wyoming, the National Park Service consulted with Lakota elders and developed a plan to discourage climbing. Native Hawaiians stopped U.S. Navy bombardment of sacred Kaho‘olawe island and are now restoring it spiritually and ecologically as a cultural refuge. But battles rage on at Mauna Kea, on Oak Flat, in the Amazon.

On Earth Day, let us all celebrate the sacred lands and territories of our indigenous friends. And let’s pledge to work harder to respect these supremely important places.

The following photos were shot as we produced the Standing on Sacred Ground films and are shared out of respect—to help us all explore the mystery of what is sacred.

Winnemem Wintu Chief Caleen Sisk leads a sunrise prayer ceremony at Mt. Shasta in California. The Winnemem are [fighting a U.S. government plan](#) to raise the height of nearby Shasta Dam, which would flood ancestral village sites, burials, and dozens of sacred places on the McCloud River. The Winnemem wish to restore the Chinook salmon to the river that flows through their homeland.

In the Altai Republic of Russia, shaman Maria Amanchina has worked for years to protect the Ukok Plateau, a sacred burial area and World Heritage Site that’s home to endangered snow leopards. The government-owned energy giant, Gazprom, plans to build a natural gas pipeline to China through this remote mountain plateau. Already, Russian archaeologists have unearthed indigenous bodies here for museum display.

Military and consumer demand propels mining operations into the most remote regions of the planet. In Papua New Guinea, John Kepma and his family were forcibly relocated by Chinese-government-owned RamuNico because their village sat atop a rich nickel-cobalt deposit. Brothers John and Peter Kepma [resisted for years](#), but police came early one morning and destroyed their homes. Mine runoff and chemicals are now polluting the sacred Ramu River and refinery waste is dumped in the sea.

A moral outrage is unfolding in the tar sands region of Alberta, Canada—polluted water seeping through unlined waste ponds, deformed fish, lethal cancers in [First Nations communities](#), and inadequate science serving an industry that has long been in bed with the government. Few

Americans realize they are burning tar sands oil in their cars, with 1.4 million barrels per day being imported into the United States, even without the Keystone XL pipeline.

In the Gamo Highlands of Ethiopia, village elders manage sacred meadows and forests according to age-old customary laws and consensus decision-making that starts and ends with prayer. Shortly after this photo was taken in sacred Dorbo Meadow, evangelical Christians disrupted a marriage and initiation ceremony by erecting poles for a church in the heart of the meadow. According to traditional custom, the vivid green grass carpet of Dorbo Meadow must never be pierced. A riot erupted, which [we captured in our documentary film](#).

Q'eros women embark on a pilgrimage to the Quyllur Rit'i festival in the heart of the Peruvian Andes. They pass before sacred Mt. Ausangate, whose glaciers are rapidly disappearing as the planet warms. Q'eros leaders make prayers and offerings to the apus, the powerful spirits of the mountains, and wonder if they have in some way failed to show proper respect, while carbon emissions in far away places are the more likely cause of their water's demise.

Gudangi women and children dance for the Rainbow Serpent along the McArthur River in Australia's Northern Territory. The river is held sacred by local Aboriginal clans whose Dreamtime stories include the story of the Rainbow Serpent who created the river and lives forever nearby. One of the largest zinc deposits in the world lies directly beneath the riverbed and when mining giant Xstrata started relocating the river to strip-mine the zinc, Aboriginal leaders sued and stopped the bulldozers. But the Northern Territory Parliament rewrote the law and the river channel was moved.

Native Hawaiians arrive on the sacred island of Kaho'olawe, where they are restoring the island after 50 years of target practice bombing by the U.S. Navy. A decades-long resistance movement based on aloha aina, love for the land, won the island back. Today, [Hawaiians are redefining "restoration"](#) as they incorporate spiritual ceremony and cultural revival into their ecological practices.

Christopher "Toby" McLeod wrote this article for [YES! Magazine](#). Toby directs the Sacred Land Film Project. His most recent film series, the award-winning Standing on Sacred Ground, tells the stories of eight embattled indigenous communities around the world. It is now airing on public television stations, including The PBS WORLD Channel. First Nations Experience (FNX), a network of 16 PBS stations reaching Indian Country, started broadcasting the series on Tuesday, concluding on Earth Day at 9 PM (ET). Check local listings. Read more at [StandingOnSacredGround.org](#).

<http://www.yesmagazine.org/planet/in-photos-the-indigenous-protectors-of-the-worlds-most-sacred-places-20160421>

April 22, 2016

Brazil suspends Amazon dam project over fears for indigenous people

By Chris Arsenault
Reuters

RIO DE JANEIRO (Thomson Reuters Foundation) - Land rights campaigners have welcomed the suspension of a mega-dam project in Brazil's Amazon basin which would have flooded an area the size of New York City and displaced indigenous communities.

The São Luiz do Tapajós dam would have forced Munduruku indigenous people out of their traditional territory while disrupting the Amazon ecosystem, a campaigner said on Friday.

The move by Brazil's environment agency IBAMA to suspend construction permits for the dam followed a report by the country's National Indian Foundation which said the project would have violated indigenous land rights protected under Brazil's constitution.

"The areas that would have been flooded include sites of important religious and cultural significance," Brent Millikan, a Brasilia-based campaigner with the non-profit rights group International Rivers told the Thomson Reuters Foundation.

"The local communities have a huge amount of knowledge about the resources where they are - if they were forced off the land and into cities they would become unskilled workers."

Brazil's environment agency said this week that it suspended licensing due to "the infeasibility of the project from the perspective of indigenous issues". The dam would have flooded 178,000 hectares of land.

The decision comes as South America's largest country faces a political crisis following a congressional vote to impeach President Dilma Rouseff who is embroiled in a corruption scandal as the nation grapples with its worst recession since the 1930s.

Supporters of the dam, which was expected to produce around 8,000 megawatts of electricity, say it would have provided green power and jobs in a country which needs both.

Hydroelectric power plants produce about 80 percent of the electricity generated in Brazil.

Backers of the dam have a 90 day period where they can appeal the suspension and submit revised plans on the size of the flooded area and how to deal with the local indigenous population, Millikan said.

<http://www.reuters.com/article/us-brazil-environment-dam-idUSKCN0XJ2AM>

April 22, 2016

On Earth Day, Pope Francis calls all 'to see the world through the eyes of God the Creator'

By Brian Roewe
National Catholic Reporter

See the world through the eyes of the Creator, Pope Francis said at the end of his general audience in St. Peter's Square on Wednesday, marking Earth Day.

“I exhort everyone to see the world through the eyes of God the Creator: the earth is an environment to be safeguarded, a garden to be cultivated,” he said.

“The relationship of mankind with nature must not be conducted with greed, manipulation and exploitation, but it must conserve the divine harmony that exists between creatures and Creation within the logic of respect and care, so it can be put to the service of our brothers, also of future generations,” the pope said.

In his universal [prayer intention for April](#), Francis prayed “That people may learn to respect creation and care for it as a gift of God.” On Tuesday, he said on Twitter:

In addition, the Global Catholic Climate Movement has designated April as [Care4Creation Month](#) and has produced resources and prayers that communities can use in observing it.

Since its beginning in the U.S. in 1970, Earth Day has grown into the largest worldwide civic observance, [according to the Earth Day Network](#), which estimated more than 1 billion people participate in activities each April 22.

Earth Day was the brainchild of U.S. Sen. Gaylord Nelson of Wisconsin, who sought a way to place environmental protection on the national agenda at a time when pollution was compounding. The Democratic senator [enlisted college students](#) to organize and coordinate the day. More than 20 million Americans attended Earth Day festivities on April 22, 1970, aligning a broad spectrum of cohorts: Democrats and Republicans, urban and rural communities, labor and business leaders.

The energy that surfaced that day has been credited with spurring the creation of the Environmental Protection Agency (1970) and the passage of signature environmental legislation, such as the Clean Air Act (1970), the Clean Water Act (1972) and the Endangered Species Act (1973) -- all initiatives enacted under President Richard Nixon.

Earth Day has since expanded to 192 countries, according to the Earth Day Network.

<http://ncronline.org/blogs/eco-catholic/earth-day-pope-francis-calls-all-see-world-through-eyes-god-creator>

April 22, 2016

Catholics join Earth Day effort to plant 7.8 billion trees

By Brian Roewe
National Catholic Reporter

The new juniper tree at Light of Hearts Villa, in Bedford, Ohio, offers its nearly 100 residents another scenic outpost in the landscape that often draws deer, fox and recently, a peregrine falcon.

The tree was planted as part of the assisted-living community's Earth Day celebration on Thursday. Some of the 25 residents in attendance braved the weather with umbrellas to partake in the prayer and planting outside, while others watched from drier conditions inside.

Sr. Regina Kusnir said the Sisters of Charity ministry does much of the planting, viewing them as partners in their mission to help others be "light of heart." Many of their residents, in their 80s and 90s, hold "great respect for the earth," she said, since many grew up on farms and relied on family and community gardens for their meals.

"That sense of blessing the earth for its generosity to us and we being responsible stewards is something that I find is very meaningful in their lives," said Kusnir, the director of pastoral and special ministries.

The Light of Hearts Villa service relied on a program produced by [the Catholic Climate Covenant](#) to help Catholics plan Earth Day celebrations. In previous years, the nearly 10-year-old Covenant has primarily produced programs around the Feast of St. Francis of Assisi (Oct. 4). This year marks their first foray into Earth Day.

"There's a hunger for this in the faith community," Paz Artaza-Regan, a program manager for the Covenant, told *NCR*.

[The "Trees for the Earth" program](#) includes an opening prayer from "*Laudato Si'*, on Care for Our Common Home," along with Scripture readings, videos and discussion questions rooted in the centrality of trees and plants in the web of life.

The program grew from a broader effort orchestrated by the Earth Day Network, which has positioned the 46th Earth Day -- a holiday that began in the U.S. but has since spread worldwide -- around the act of planting trees. The network has set a goal of planting 7.8 billion trees, or one for each person on Earth, by the 50th anniversary of Earth Day in 2020.

Planting trees, the Earth Day Network says, "will serve as the foundation of a cleaner, healthier and more sustainable planet for all." Part of that is the role trees play in addressing climate change.

Forests operate naturally as "carbon sinks" in capturing and storing carbon. According to the [third National Climate Assessment](#), released in 2014, U.S. forests represent "[an important national 'sink'](#)" by storing the equivalent of "roughly 25 years of U.S. heat-trapping gas emissions." In 2011, American forests and wood products absorbed and stored about 16 percent

of all carbon emissions from fossil fuels; the Assessment found that active establishment and planting of forests in the next century has the potential to almost double that storage capacity.

But how much carbon forests absorb in the future largely depends on how they're managed, and how pervasive threats to trees from a warming climate -- drought, wildfire, invasive insect species -- ultimately become.

In *Laudato Si'*, Francis spoke of trees, which he acknowledge assist in mitigating climate change, most often through their loss, typically through economic pursuits.

“As long as the clearing of a forest increases production, no one calculates the losses entailed in the desertification of the land, the harm done to biodiversity or the increased pollution,” he wrote.

The pope grouped planting trees among what he called “a nobility in the duty to care for creation through little daily actions.”

“Education in environmental responsibility can encourage ways of acting which directly and significantly affect the world around us ... All of these reflect a generous and worthy creativity which brings out the best in human beings,” he said in Paragraph 211, later adding “Good education plants seeds when we are young, and these continue to bear fruit throughout life.”

In a bit of symbolism, as communities across the globe used Earth Day for the simple act of planting trees, roughly 170 world leaders gathered at the United Nations in New York to plant pen to paper in officially signing the historic [Paris Agreement](#), the international roadmap for addressing climate change.

The "Trees of the Earth" toolkit draws information from the Earth Day Network -- such as an acre of mature trees in one year captures the equivalent amount of carbon dioxide emitted by an average car driving 26,000 miles -- but adds passages from Genesis and from Matthew's Gospel, the parable of the sower.

Beyond climate change, it discusses the importance trees play in keeping air clean and in building communities. It highlights one group of women in Africa who rely on planting trees for income through carbon credits from high-emissions companies.

While it offers resources for planting a tree, it also suggests alternatives, such as donating to Catholic Relief Services or TIST, the group of African farmers highlighted in the program. Other options include distributing seeds, bulletin inserts, or blessing creation care teams at weekend Masses.

About 1,000 groups downloaded the Earth Day program, said Artaza-Regan, who has been receiving updates on how people have incorporated it in their own Earth Day plans.

Numerous congregations of women religious across the country have planned to use "Trees of the Earth" in prayer services.

The Chicago archdiocese has sent weekly *Laudato Si'*-inspired email reflections and planned an Earth Day-focused Mass Friday that will include aspects from the closing prayer from the Catholic Climate Covenant program.

The [Newman Catholic Center](#) at Eastern Illinois University planned a discussion Friday on the detrimental effects of climate change on basic needs, and will screen the animated film "The Lorax" on Sunday.

At [Bellarmine Chapel at Xavier University](#), in Cincinnati, they plan to distribute apple trees and milkweed seeds to parishioners at Masses all week.

In Eden Prairie, Minn., [Pax Christi Catholic Community](#) is holding Saturday an "Earth Day Retreat" where Fr. Larry Snyder, former head of Catholic Charities USA, will speak.

At [Our Mother of Peace School in Church Point, La.](#), this year marked their first Earth Day celebration. That's in part thanks to Assistant Principal Sr. Joel Miller.

"Well, my first question was 'Are y'all involved in Earth Day?' and they just kind of looked puzzled. I could tell right away they were not," she said.

Miller, who through her Marianites of Holy Cross congregation has been engaged in environmental issues for about a decade, decided it was time to change that. She offered materials to her teachers and then watched with amazement at how quickly they embraced it, the school's hallways soon decorated by drawings from the kindergarten, first- and second-grade classes.

"I was just filled with joy, because I didn't expect that much of a reaction," she said.

Throughout the week, Our Mother of Peace has begun their day with prayers concerning the Earth. In addition to coloring, the younger classes have talked about recycling, while all classes have looked at the stark figures of how wasted water, food and energy.

The Earth Week exercise, Miller said, has helped the children -- as well as the adults -- recognize what is happening around them and how their actions can impact other people and the planet.

"When you see a little kindergarten child saying, 'I will never waste water again,' I think that plants a seed that hopefully they will use for the rest of their lives and begin to do other things with it," she said.

A few grades up and about 400 miles west, students at [St. Edward's University, in Austin, Texas](#), held their own Earth Week. Earlier days hosted a discussion of the Paris Agreement, an Earth Day Fair, a local creek clean-up, and sustainable clothing swap. The big moment comes Friday, when they will plant trees marking their new designation as a Tree Campus USA college.

Cristina Bordin, sustainability coordinator for the school, told *NCR* the Tree Campus recognition, a program through the Arbor Day Foundation, comes as a cherry on top of the work

the 160-acre campus began in 1999 through its long-term landscape plan. Since then, the campus has planted nearly 1,000 trees.

At the ceremony Friday they will plant 10 more. The seed to planting so many trees was initially pragmatic: It gets hot in Texas, and trees provide shade and help keep temperatures cooler – "so we're not a heat island," Bordin said.

The trees were also seen as a way to make the campus more pedestrian and to create community spaces. A 350-year-old Sorin Oak tree at the school's center already serves as a gathering point and source of campus pride.

The act of planting a tree, beginning with a seed buried deep in the earth, is a sign of growth, Kusnir said.

"We're each a kind of tree and we have the seeds of God's love and inspiration in us. And we grow branches and touch other people, and let them rest within the comfort of our love and care," she said.

Back in Church Point, Earth Day Week at Our Mother of Peace School has included plenty of prayers, coloring and environmental discussion, but so far hasn't included a tree-planting. A local resident, though, has approached the school about doing just that, perhaps next week. Asked about the current landscape of the school, the assistant principal Miller said its roughly four acres already have numerous trees.

"But you know, there can always be more," she said.

<http://ncronline.org/blogs/eco-catholic/catholics-join-earth-day-effort-plant-78-billion-trees>

April 23, 2016

Rouhani opens Intl. Seminar on Environment, Religion, Culture

Mehr News Agency

TEHRAN (MNA) – The 2nd 'International Seminar on Environment, Religion, and Culture' was opened at Tehran's Pardisan Park Sat. morning with the presence of President Rouhani and participants of 15 countries.

Organized by the Islamic Republic of Iran and with the active collaboration of the United Nations (UN) and the United Nations Environment Programme (UNEP), the second edition of this invitational event entitled, the 'International Seminar on Environment, Religion, and Culture,' is currently underway at Pardisan Park in Tehran and will continue until Sunday.

The seminar aims to convey this message to the world that 'dialogue' is the foundation of any kind of common understanding among human beings, societies, cultures and religions.

The event has been organized in line with the general environmental policies issued by Leader Ayat. Khamenei, and seeks to promote further peace and freedom in the world.

Speakers and foreign guests from 15 countries which encompass all continents and are of nine religions including Christianity, Catholicism, Sunni Islam, Shia Islam, Jainism, Hinduism, Zoroastrianism, Judaism, and Buddhism, will participate in five specialized panels to discuss ideas and exchange views.

The seminar is being held due to the successful and positive results of the 1st seminar on Environment, Culture and Religion in 2011 as well as the 2005 Conference on Environment, Peace and Dialogue among Civilizations and Cultures with the support and participation of UNESCO and the United Nations.

The framework of this seminar is a 'transformation of our world: 2030 agenda for sustainable development' which has been confirmed as the action plan for people, our planet and prosperity in the recent meeting of the United Nations in New York, September 15.

<http://en.mehrnews.com/news/116027/Rouhani-opens-Intl-Seminar-on-Environment-Religion-Culture>

April 24, 2016

Minding Animals Bulletin 32

<https://mindinganimals.com/bulletins/>
<https://mindinganimalsinternational.files.wordpress.com/2013/10/bulletin-32.pdf>

April 26, 2016

The Power of Memory: Chernobyl Thirty Years Later

By His All-Holiness Ecumenical Patriarch Bartholomew

Thirty years ago, in the early morning of April 26, 1986, even as the Orthodox Church was about to embark on its holiest of weeks leading to the joy of Easter, the Chernobyl nuclear power plant in Ukraine exploded, creating the worst nuclear disaster that the world had seen up to that time.

The consequences of the disaster were felt far and wide: in the extension of contaminating radioactive particles into Russia, Belarus, as well as countries to the North and West; in human desertion and ecological destruction of vast surrounding areas; in long-lasting and permanent damage to health and loss of human life estimated at one million premature deaths.

With this painful background of experience and knowledge, what can we conclude as conscientious citizens? What can we resolve as committed believers? And what can we profess as responsible leaders?

First, we must never forget. *We must forever remember.* We must recall the names of all those, known and unknown, who lost their lives as a result of our actions, just as we must retain vivid in our heart and mind the tragic consequences of our failures. Memory is a powerful attribute in religion, and particularly in Christianity where it becomes a transformative force. It is the way in which we relate to the past, change our attitude and conduct in the present, and assume responsibility for the future.

Second, we have reached a point in technological development where *we must learn to say "No!"* to technologies with destructive side effects. We are in dire need of an ethic of technology. In the Orthodox Church, we profess and confess that God's spirit is "everywhere present and fills all things" (From a Prayer to the Holy Spirit). However, we must also begin to embrace a worldview that declares and demonstrates the biblical conviction that "the earth is God's and everything in it" (Psalm 23.1) so that we may refrain from harming the earth or destroying the life on it. We have been gifted with unique resources of a beautiful planet. However, these resources of underground carbon are not unlimited—whether they are the oil of the Arctic or the tar sands of Canada, whether they are the coal of Australia or the gas in Eastern Europe. Moreover, with regard to nuclear energy specifically, we cannot assess success or sustainability purely in terms of financial profit—the disasters at Three Mile Island (1979), Chernobyl (1986), and Fukushima (2011) have amply demonstrated the human, financial, and ecological cost. Nor, indeed, can we ignore the other problems of nuclear power, such as waste disposal and vulnerability to terrorist attacks.

Third, we have reached a point in our economic development where *we must learn to say "Enough!"* to the mentality of consumerism and the competition of market economy. It is time to be honest with ourselves and with God, acknowledging that the Christian gospel is not always really or readily compatible with the ways of the world; indeed, the message of Jesus Christ and the Church Fathers aims at restraining the crude passions of greed and avarice.

Finally, we have reached a point in our global civilization where *we must learn to say "Yes!"* to another reality beyond ourselves, to the Creator of all creation, before whom we should kneel in humility and surrender in prayer, recognizing that he and everything he created is for all, not just our own selfish desires. Perhaps the greatest lesson and recollection from Chernobyl is that *we must share the world with all people.* What we do in the world and for the world affects people's lives—their health (with the inestimable number of cancer victims), their nourishment (with the inconceivable contamination of food), as well as future generations (whether with the insufferable birth defects and the indiscernible impact on our children). This is the lesson that, in the Church, we call communion. It is the foremost definition of "God as love" (1 John 4.8) and the highest expression of human love.

This new kind of thinking—this new ethic that aspires to "a new heaven and a new earth" (Rev. 21.1)—is what should be taught in every parish and every corner of the world. Chernobyl should be a lesson about restraint and sharing. We must show compassion; we must demonstrate

respect; and we must make peace, not just with our neighbors, but also with the whole of creation.

As the Mother Church of Ukraine, we fervently pray that the memory of Chernobyl be eternal and not in vain.

<https://www.patriarchate.org/-/the-power-of-memory-chernobyl-thirty-years-later?inheritRedirect=true>

April 27, 2016

Confronting climate change is our moral obligation

By Most Reverend Oscar Cantú and Most Reverend Broderick Pabillo
The Hill

We are bishops from the global South and North, united by faith and humanity. As pastors, we seek to comfort the young and the old, the healthy and the infirm.

We try to ensure that the powerless are heard and the powerful are engaged. In accordance with these values, we joined hands with Pope Francis to call upon our leaders to protect all of creation from ecological calamity as they prepared to sign the Paris climate change accord April 22 at the United Nations headquarters in New York.

In his encyclical *Laudato Sí*, Pope Francis discussed the grave implications of climate change and called on all people, not just Catholics, to protect the earth—the common inheritance of all. The Pope’s message was heard clearly last December in Paris, where the world’s countries reached an historic agreement to reduce carbon pollution and be held accountable for their actions to do so. Now, as world leaders prepare to formally sign the agreement and bring it into force, we wish to elevate the Pope’s message of our shared moral obligation to protect creation for generations to come.

Climate change threatens all life—and the life cycle of the earth itself. Climate change attacks the human dignity of those most affected, with the least fortunate bearing a disproportionate burden from its impacts. What the scientific consensus tells us, and what real observations and experiences around the world have shown us, is that humanity’s current reliance on fossil fuels is altering the atmosphere. Warmer oceans and higher temperatures are already being connected with increased sea levels, storm surges, rainfall intensities and droughts, as well as disruptions in growing seasons and migratory patterns.

In *Laudato Sí*, Pope Francis highlighted the urgency of our task: “Technology based on the use of highly polluting fossil fuels – especially coal, but also oil and, to a lesser degree, gas – needs to be progressively replaced without delay.” We have a moral obligation to reduce carbon pollution, to protect people from climate impacts and to safeguard human health.

Heeding Pope Francis' call—in response to the warnings of major scientific bodies—we encourage all people, and especially Catholic leaders, to continue to foster dialogue in local communities and among policymakers to find ways to address today's social and ecological crises. Many Catholic parishes, schools, hospitals, and other organizations are already reducing carbon pollution with energy efficiency and renewable energy projects. Catholic citizens and organizations that demand bold, science-based climate policies from elected officials can bring change and results to their communities.

Those of us living in the industrialized nations in the global North know that we are disproportionately responsible for carbon pollution. Those of us living in developing nations in the global South know that we are disproportionately impacted by climate change. In solidarity, then, we must all examine our lifestyles with sobriety and support public policies that place the common good of everyone over the narrow self-interests of the few.

The international negotiations in Paris give us reason to be optimistic. U.S. leadership on climate change is encouraging other nations to do likewise, and repay what Pope Francis calls an “ecological debt” to those historically least responsible for climate change. Policies like the Clean Power Plan will drive down carbon pollution, while the global Green Climate Fund will help developing nations adapt to the effects of climate change and adopt clean energy technologies. World leaders must not back down from their commitments, and should continue to augment efforts to reduce the dangerous pollution that causes climate change.

As bishops from different countries, we find hope in the many Catholic organizations that are helping spread Pope Francis's call to care for our common home. With the help of countless other faith-based organizations and people of goodwill, moral appeals can join with the economic, political, and cultural arguments for addressing climate change. Together, we must avert the catastrophic consequences of indifference and inaction, and safeguard creation for all of humanity.

Most Reverend Oscar Cantú, Bishop of Las Cruces, New Mexico; Chairman of the Committee on International Justice and Peace, United States Conference of Catholic Bishops. Most Reverend Broderick Pabillo, Auxiliary Bishop of Manila; Chairman of the Committee on the Laity, Catholic Bishops Conference of the Philippines.

<http://thehill.com/blogs/congress-blog/energy-environment/277829-confronting-climate-change-is-our-moral-obligation>

April 27, 2016

Zambia's Catholic Bishops call for action on environment

Vatican Radio

Zambia's Catholic Bishops say they appreciate that the country still needs mining and large-scale farming. The Bishops have acknowledged that mining contributes to the country's development

and provides much-needed jobs. They also say large scale agriculture is still necessary for increased food production in the country.

Nevertheless, the Bishops want the country's mining companies and those in the agricultural sector to be more responsive to the needs of the environment and accountable to local communities affected by their activities.

“Recognising that mining contributes to job and wealth creation of the country, we, however, challenge the mining sector to begin to practice responsible mining that takes into account the needs of the environment,” the Bishops say in a communiqué issued at the end of a national environmental conference held in Lusaka this week.

President of the Pontifical Council for Justice and Peace, Cardinal Peter Turkson, was the principal guest speaker at the conference. On Monday Cardinal Turkson addressed the meeting and gave an overview of Pope Francis' encyclical, *Laudato si*. Outlining key issues in the document, the Cardinal clarified that Pope Francis was not anti-business.

The national conference dubbed the “*Laudato si* conference” was organised by the Zambia Episcopal Conference (ZEC), through its Department of Caritas Zambia. The Jesuit Centre for Theological Reflection (JCTR) co-hosted the national conference whose theme was, ‘Care for Our Common Home in the Context of Large Scale Investments – Mining and Agriculture.’ The meeting was held at Lusaka's Government Complex from 25 to 26 April.

Zambia's open-door investment policy meant to encourage foreign multinational corporations to invest in the country has been criticised for prioritising investors at the expense of poor ordinary Zambians.

Zambia is one of the leading producers of copper and emeralds. The government has given over-reaching incentives such as extended tax breaks to lure the multinationals into investing.

Observers say that the real cost of mining and agricultural investment is borne by the poor who are usually evicted from their ancestral land to make room for new investment projects. The environment also suffers. In some areas, locals accuse mine owners of polluting rivers and sources of drinking water.

One such case is now making its way at a London court. Dominic Lungowe and 1,812 others have commenced proceedings at London's High Court of Technology and Construction.

The matter, *Dominic Liswaniso Lungowe and others versus Vedanta Resources PLC, and its subsidiary Konkola Copper Mine (KCM)* has ignited much debate in the country.

Dominic and others allege that they have suffered various health problems due to negligence by the international mining giant, Vedanta Resources and its subsidiary KCM. The Zambian Government is equally not happy with the suit and Zambian President Edgar Lungu; last month criticised former Attorney General, Musa Mwenye for prosecuting the Vedanta Resources and KCM matter in a UK court.

(Fr. Paul Samasumo, Vatican Radio)

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http://en.radiovaticana.va/news/2016/04/27/zambia%E2%80%99s_catholic_bishops_call_for_action_on_environment/1225883
