CES Musings
Chronicling the Transition from Economic-Industrial
To Ecological-Cultural Societies
(May-June 2017)

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AT A GLANCE

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CLIMATE

Climate action continues. “As the federal government abdicates its role on this important issue, it is critical for states to fill the void,” said Virginia’s Governor Terry McAuliffe as he issued an executive order on May 16, 2017, instructing officials to begin crafting regulations to “abate, control, or limit” emissions from power plants in the state and increase renewable energy investment.” Associated Press California’s Governor Jerry Brown and New York’s Governor Andrew Cuomo issued a joint statement promising to continue to act on climate “with or without Washington.” The Hill Nearly half of the largest U.S. corporations have set their own targets for emissions reductions, even as the Trump administration retreats from environmental commitments. NYTimes Reductions in carbon emissions by India and China will eclipse any rise in US emissions as a result of Donald Trump’s efforts to boost the coal industry, according to a new analysis. IndependentUK Both of these nations are on track to meet their targets under the Paris agreement ahead of schedule. Inside Climate News Even if Trump decides to withdraw from the Paris Agreement, announced Maroš Šefčovič, Vice President of the European Commission and the chief energy policymaker for the European Union, “We are ready to continue to provide the leadership on climate change.” He added, “We are going to clearly pursue our goals in Europe, but we also want to continue our strong role in helping, especially in the developing world.” Time

Those with eyes see the necessity for action. In Antarctica miles of ice are collapsing into the seas. Alarmed by the warning signs that parts of the West Antarctic ice sheet are becoming unstable, American and British scientific agencies are joining forces to get better measurements in the main trouble spots. They are observing the acceleration of vast ice sheets that are flowing downhill, seemingly in slow motion—mountains funneling the ice into glaciers, and ice flowing from the land into the sea, forming floating ice shelves. NY Times A new branch has split off the widening crack in the Larsen Ice Shelf in another sign of the ice’s impending breakoff. The rift in the Larsen Ice Shelf along the east coast of the Antarctic Peninsula is now about 111 miles long. It grew by 17 miles between December and January of this year, and only 12 additional miles of ice remain attaching the calving ice to the larger shelf. USA Today The Great Barrier Reef is probably doomed no matter what, reports a new study showing even slight amounts of global warming will devastate Australia and destroy its famous reef. The Atlantic Pre-monsoon heat this year began earlier than normal, with New Delhi recording its hottest March in seven years. Heat waves typically set in across India in April and last through June, when the cooling monsoon rains arrive. Climate Central This year’s floods in Peru have been the worst in living memory. Ten times the usual amount of rain has fallen on Peru’s coast, swelling rivers, causing widespread flooding, and triggering huge landslides which tore through shanty towns. The Guardian The glaciers in Montana’s Glacier National Park are rapidly disappearing. Some have been reduced by as much as 85 percent over the past 50 years; the average loss is 39 percent. NPR
There are some US Republicans working for climate action. Bob Inglis—a former Congressman from South Carolina—has become a spokesperson of sorts for “the eco-right,” a group of think tanks, activists and politicos making the case for a free-market approach to environmentalism grounded in conservative values. He now serves as the Executive Director of RepublicEn. The Atlantic In March 2017 seventeen Republican lawmakers, including Elise Stefanik of New York, Carlos Curbelo of Florida, Mark Sanford of South Carolina, Mia Love of Utah, Don Bacon of Nebraska, and Ryan Costello of Pennsylvania, introduced a resolution that urges the House of Representatives to “address the causes and effects” of climate change. rt.com A group of prominent conservative Republicans—including former Secretary of State James Baker III, former Treasury Secretary Hank Paulson, former Secretary of State George Shultz, and former Walmart Chairman Rob Walton—met with key members of the Trump administration in February 2017 to propose a carbon tax. They believe an economy-wide tax on carbon dioxide could enable the United States to achieve its international emissions targets with better economic outcomes than under a purely regulatory approach. NY Times And many of Trump’s most influential policy advisers are urging him to keep the United States in the Paris climate accord, including his daughter Ivanka and son-in-law, Jared Kushner. Supporting “remain” are Secretary of State Rex W. Tillerson and White House climate policy adviser, George David Banks—not to mention US-based Exxon-Mobil and European oil companies Royal Dutch Shell and BP, both with significant investments in the United States. NY Times

ENERGY

The success of clean energy sources and applications shows the turn from fossil fuels is already happening. US electricity generation capacity from wind power provided more megawatts in the first quarter of 2017 than in the first three quarters of 2016 combined. Wind provided 5.6 percent of all electricity produced in 2016, an amount of generation that has more than doubled since 2010. insideclimatenews In April 2017 Denmark offshore wind giant Dong Energy won the rights to build two new wind farms in the German North Sea, and it will not need government subsidies to justify the investment. The move represents a major milestone for the offshore wind industry, which in the past has required support from European governments. NY Times Saudi Arabia will develop 30 solar and wind projects over the next 10 years as part of the kingdom’s $50 billion program to boost power generation and cut its oil consumption. The world’s biggest exporter of crude oil will produce 10 percent of its power from renewables by 2023. Bloomberg In a final sign of how the energy industry’s future is being reimagined, electric-car maker Tesla passed General Motors in April 2017 as America’s most valuable auto company. CNBC Tesla has plans to move into the heavy vehicle market, and the first glimpse of the new Tesla Semi is due this fall. Quartz

New sources of energy and new ways to store it are rapidly being developed. Large-scale compressed air storage, which already exists in Germany and the United States, utilizes underground chambers in salt formations that release the stored air through a gas turbine that generates electricity. Without a system to store the heat that was produced during the air
compression stage, however, much of the energy is lost. Scientists are experimenting with using a separate cavern filled with crushed rock as an intermediate chamber on the way to the main cavern. The process of compressing air heats it up, the hot compressed air heats up the rock as it passes through, the rock retains a large proportion of the heat, and when the air subsequently returns from the main storage vault it is reheated by the rock and then expanded through the turbine generating electricity. This technology could raise the efficiency of the cave storage system to the point that 70-80% of the compressed air would be used for energy, and wherever underground sites exist, the method would prove more economical than battery storage. ScienceDaily Discovering an economical way to break down lignin, the part of plant cell walls that provides structure and protection from bacterial and insect attacks, may ultimately make biofuels price competitive with petroleum. At the present time in the process of converting plant matter to fuel, lignin is the residue and it is either left unused in piles as a waste product or, when large amounts are available such as in pulp and paper manufacture, is burned to produce onsite electricity. If commercial products, such as renewable plastics, fabrics, nylon and adhesives, could be made from lignin, the financial benefit of these would offset the higher cost of biofuel manufacture. The hitch has been lack of a cheap way to break down lignin, and Sandia National Laboratories believe their success in decoding the structure and behavior of LigM, an enzyme that breaks down molecules derived from lignin, may be the needed breakthrough. ScienceDaily

These advances are less likely to continue as the US Department of Energy changes its objectives. The Trump administration wants to cut the renewable and energy efficiency program by nearly 70%, according to a draft agency budget document. Congress is probably not going to grant such deep cuts, but the lower the starting point, the lower the ultimate numbers are likely to end up. Axios Republican Senator Chuck Grassley of Iowa raised concerns over the upcoming Department of Energy grid study in a letter sent to Secretary Rick Perry May 17, 2017. Grassley expressed concern that the study “appears to pre-determine that variable, renewable sources such as wind have undermined grid reliability.” Grassley said 36 percent of energy in Iowa comes from wind, cited utility rates as the ninth-lowest in the nation, and instructed Perry that “any study reviewing the impacts of wind energy on grid reliability and security should look closely at Iowa’s utility operations as evidence of its success.” Reuters Four major solar and wind industry groups pushed back on the grid study as well. On May 16, 2017, the American Council on Renewable Energy, American Wind Energy Association, Solar Energy Industries Association and Advanced Energy Economy expressed concern at being shut out of the review process and presented analyses showing that renewables enhance grid reliability and save money. The Hill Secretary Rick Perry may consider himself in a tight spot regarding wind energy, since under his leadership as governor, Texas became the number one producer of wind energy in the United States. The state produces more wind energy than the next three states combined. In fact, if it were its own country, Texas would, by the end of 2017, be the fourth-largest largest wind-producing country in the world. Dale Ross, Mayor of Georgetown and a staunch Republican who attended President Trump’s inauguration, says former Texas Governor Rick Perry deserves the credit: “I truly believe he was a visionary.” Jay Root, reporter for The Texas Tribune, says “I don’t think anyone would call Rick Perry an environmentalist,
including Rick Perry. . . . But the guy knows how to sniff out a dollar. Here’s a guy from West Texas who saw that you can make money off of the wind blowing. Like, that’s a no brainer.” A no-brainer unless you’re a Tea Party conservative. Perry faces challenges at the national level that will make it much harder for him to expand what he did in Texas. NPR

CIVIL LIBERTY

At the end of March, representatives of the United Nations’ Office of the High Commissioner for Human Rights registered a complaint with the US Department of State about a rash of US legislation “incompatible with US obligations under international human rights law.” The two special rapporteurs responsible for compiling reports and presenting them to the UN agency listed specific pieces of legislation which they said were “criminalizing peaceful protests” and threatening “to jeopardize one of the United States’ constitutional pillars: free speech.” The Globe and Mail The American Civil Liberties Union (ACLU) said more than 30 separate anti-protest bills have been introduced since November 8, 2016, in “an unprecedented level of hostility towards protesters in the 21st century. And many of these bills attack the right to speak out precisely where the supreme court has historically held it to be the most robust: in public parks, streets and sidewalks.” The Guardian North Dakota lawmakers have considered bills to heavily penalize protest actions against the Dakota Access Pipeline, and in May Governor Mary Fallin of Oklahoma signed a bill that would levy steep fines or prison time against people convicted of trespassing at a critical infrastructure facility to impede operations in that state. Facilities include pipelines, refineries, chemical plants, railways, and other industrial sites. Under the new law individuals will face a felony and a minimum $10,000 fine if a court determines they entered property intending to damage, vandalize, deface, “impede or inhibit operations of the facility.” Should the trespasser actually succeed in “tampering” with the infrastructure, they face a $100,000 fine or 10 years of imprisonment. Attorney Doug Parr, who has represented numerous environmental activists in Oklahoma protest cases, noted that under the new trespassing law a violation as minor as spray-painting a message on an oil facility could plausibly lead to $100,000 in fines if a court determined it was “defacing equipment.” He said the law amplifies risks for groups that organize protest actions who can’t always account for the diversity of tactics used by attendees. A coalition of Native American and environmental activists have said they plan to block the proposed Diamond Pipeline, a $900 million project that will carry crude oil from the Cushing refinery hub toward Tennessee. The Intercept

On February 24, 2017, the White House barred news outlets including CNN, The New York Times, Politico and The Los Angeles Times from attending an off-camera press briefing held by spokesman Sean Spicer. CNN’s Sara Murray commented on the air, “What the White House was doing was handpicking the outlets they wanted in for this briefing. So Breitbart, the Washington Times, the One America News Network—news outlets that maybe the White House feels are more favorable—were all allowed in.” Washington Post A number of major news organizations were also let in to cover the informal briefing, often called a “gaggle.” That group included ABC, CBS, NBC, Fox, Reuters, Bloomberg, The Wall Street Journal and McClatchy. The Hill, Politico, BuzzFeed, The Daily Mail, BBC, and the New York Daily News were among the other news
organizations not permitted to attend. Reporters from The Associated Press and Time magazine were allowed into the gaggle but refused to attend. That organization’s communications arm tweeted, “AP believes the public should have as much access to the president as possible,”. The Wall Street Journal said, “Had we known at the time, we would not have participated and we will not participate in such closed briefings in the future.” The press corps maintains an “in-house pool” of twenty-one reporters who cover events on the White House grounds when there is not enough space for the press group. There is also a smaller pool that travels with the president to events in Washington, DC. On February 24th the White House apparently decided to use different criteria in forming the group that could attend. A uniformed Secret Service officer told excluded reporters to leave the hallway outside the meeting. The Hill

After this incident, instead of banishing unfavored news outlets, Spicer has been conspicuously picking who gets to ask questions: These include The Daily Signal, published by the Heritage Foundation; Breitbart News, which White House Chief Strategist Steve Bannon used to run; the London Daily Mail, which was banned as a source by Wikipedia for its “reputation for poor fact-checking and sensationalism”; and the Gateway Pundit, the “aggressively incorrect hate site,” Fox News, and Townhall.com. Katie Pavlich of Fox News is called on frequently to ask questions such as “Is President Trump planning to ask the Senate to expedite legislation allowing for the swift firing of bad VA employees?” That one got a “That’s a great question!” response from Spicer. Washington Spectator

Free speech got a boost from former President George W. Bush following the problematic February White House press conference. He told reporters, “I consider the media to be indispensable to democracy, that we need an independent media to hold people like me to account.” USA Today Beware, though, of exercising what you might think is a right to free speech if you ever get threatened with arrest in Louisiana. Resisting arrest there can be classified as a hate crime, punishable by up to 10 years in prison. In fact, if someone is wrongly arrested and resists that wrongful arrest, instead of simply being charged with the misdemeanor of resisting arrest, that person can be charged with a felony hate crime against police. It doesn’t matter if they actually hate police or not. St. Martinville Police Chief Calder Hebert said he is already enforcing the law. “Resisting an officer or battery of a police officer was just that charge, simply. But now, (Louisiana) Governor Edwards, in the legislation, made it a hate crime now.” KATV News

The Louisiana law went into effect prior to Trump’s inauguration, but on February 9, 2017, Trump issued an executive order in the same spirit. Entitled “Presidential Executive Order on Preventing Violence against Federal, State, Tribal, and Local Law Enforcement Officers,” the order promises to “define new Federal crimes, and increase penalties for existing Federal crimes, in order to prevent violence against Federal, State, tribal, and local law enforcement officers.” The Guardian

In another well-publicized incident, on May 10, 2017, Daniel Ralph Heyman, a Public News Service journalist since 2009, was arrested for asking a question of US Health and Human
Services Secretary Tom Price during a visit to West Virginia. US Capitol police said Heyman was yelling questions, tried to breach Secret Service security, and had to be removed from a hallway. Heyman said he was arrested after asking repeatedly whether domestic violence would be considered a preexisting condition under the proposed healthcare overhaul. He has been a journalist for three decades. He said he believed he was doing nothing wrong. The ACLU issued a statement emphasizing the setting: “not in a closed meeting or the inside of a working office, but in the hallways of a government building,” and called the arrest “a blatant attempt to chill an independent, free press. The charges against him are outrageous, and they must be dropped immediately.” The Guardian

**CHANGES COMING IN CES**

When we begin our CES Service Group meetings we begin by reciting

> We are about the Great Work . . . the Work of moving on from a terminal Cenozoic, to an emerging Ecozoic era in the history of the planet Earth . . . which is the Great Work!

We firmly believe this is the Great Work of our time. It guides us, inspires us, and gives meaning and purpose to our lives. As a group, we of CES devote ourselves to understanding the Great Work and sharing what we have learned, and enabling others to share what they have learned, with others.

CES is about providing space for deeper reflection and enabling community transformation. We play two primary roles:

1. “Companioning” (sharing the journey with) people in the Great Work. The Great Work is difficult, and humanity will likely face increasingly difficult circumstances.
2. Being a place for developing and sharing visions, ideas, and applications for the Great Work.

What makes CES distinctive is that we apply Thomas Berry’s principles in a real world context—that of an urbanized, globalized, technology- and energy-dependent world—with the intent to realize an ecozoic future. We also consider it distinctive that we strive to push beyond meliorism (incremental progress toward an ever-receding goal) to what is really required for a viable future.

With this as background, this summer will be a transitional time for CES. This will be the last issue of *CES Musings*. We began publishing *Musings* in January 2007, ten years ago. In its place, beginning not later than September, we will begin publishing a new online magazine, one that will likely come out 10 times a year—once a month except for the summer issue (July-August) and the holiday issue (November-December). We have not decided the format or name. We will be emailing you and asking what you would like to see and how you would like to participate in this publication.
Our other publication is *The Ecozoic*. We will shortly be publishing our next issue. It will contain papers delivered at the 2014 CES Colloquium on “Thomas Berry’s Work: Development, Difference, Importance, Applications.” In the fall we will publish another issue which will contain CES’s “Foundational Papers.” We may or may not change the name of this publication.

In regard to events and educational programs, going forward we will target programs intended to inform and guide people engaged in the Great Work.

On the “collaborations” side, we will continue to work with EcoCiv and many other groups. On the constituent services side, we will send out an email to you with a request for feedback in this area. We have several things in mind.

Finally, on the administrative side we will continue our long journey of improving our operations and services.

These are the areas in which we do, and will continue to do, our work:

- Publications
- Events
- Educational programs
- Research
- Collaborations
- Constituent Services
- Administration

We are looking forward to this next leg of the journey.
CES-LED SYMPOSIUM WITH DAVID ORR ON THE LONG VIEW IN ADDRESSING THE ECOLOGICAL CRISIS

On April 1, 2017, EcoCiv and CES convened a major symposium at the home of Steven Knapp, President of George Washington University in Washington, DC. Participants included leaders of environmental organizations, policy experts, scholars, and activists. The symposium provided attendees an opportunity to step back from their day-to-day efforts to construct and implement sustainable policies to consider their work from the standpoint of the longer-term goal, an ecological civilization.

David Orr set the stage by highlighting evidence of climate change and demonstrating that global society is on a path toward social, economic, and political collapse as a result. Through backcasting—working backwards from the goal of an ecological society to guide decision-making today—participants were invited to think how their current work could be reoriented. CES will continue to work with EcoCiv to engage policy experts along with grassroots organizations to promote the social and cultural transition to ecological civilization.

Here are the people who participated in this symposium:

- **David Orr** (Featured Speaker) is Professor of Environmental Studies at Oberlin College. He is one of the most significant figures in environmental studies and philosophy of the last four decades. He has combined scholarship with community involvement and concrete projects in sustainable living.
- **Steven Knapp** (Host), President, George Washington University.
- **Kathleen Merrigan**, Executive Director of Sustainability, George Washington University; former US Deputy Secretary of Agriculture.
- **Frances Seymour**, Distinguished Senior Fellow, World Resources Institute; Senior Advisor, David and Lucile Packard Foundation; former Senior Fellow, Center for Global Development; former Director General, Center for International Forestry Research.
- **Lisa Renstrom**, Chair of the Board of Confluence Philanthropy; former President of the Sierra Club.
- **John Cavanagh**, Executive Director, Institute for Policy Studies in Washington, DC.
- **Patrick Doherty** Founder and principal in Long Haul Capital Groups; formerly Founder and Co-director, Strategic Innovation Lab at Case Western Reserve University.
- **Dan Vermeer**, Founder and Director, Center for Energy, Development, and the Global Environment (EDGE) at Duke University’s Fuqua School of Business.
- **Bob Perkowitz**, Founder and President, ecoAmerica.
- **Meghan Chapple**, Director, George Washington University’s Office of Sustainability
James Peacock, Kenan Professor of Anthropology and Professor of Comparative Literature Emeritus, University of North Carolina at Chapel Hill; former President of the American Anthropological Association.

Logan Malik, Student Leader, Fossil Free George Washington, and chemistry student at George Washington.

Philip Clayton (organizer), President, Toward Ecological Civilization (EcoCiv); Ingraham Professor at Claremont School of Theology.

Herman Greene (organizer), President, Center for Ecozoic Societies (CES).

Beth Singleton (coordinator), Project Manager, Toward Ecological Civilization (EcoCiv).

Marilyn Greenberg, Project Manager, Toward Ecological Civilization (EcoCiv)

AMAZING THE TREE

by Lib Hutchby

Silently progressing towards her,
Crying unexplained tears,
We inched our way towards
Her elegantly dressed grace.
Greeting us with every branch’s spring growth,
Draped elegantly in Spanish moss,
We bowed and she smiled;
We threw her kisses and honored her.
“Wow, she must be old, very old,”
“Oh, oh my, she’s grand.
Look at her. Just look at her outstretched arms.”
We walked a little closer.
“Do you hear that?” they asked.
“No,” I replied, “but I see them.”
Hundreds of bees coming in and out of her
House of unending welcome . . .
Maybe a bear like Winnie the Pooh
Had been there once upon a time, too.
Lifting her limbs in all four directions,
She stately prepared to bow again
While two branches performed a ballet,
As two others allowed a squirrel to sit motionless,
Waiting for a hawk visitor to pass.

She smiles, sways, and opens her heart to strangers again.
“We think she’s 800 to 1000 years old.”
Her bark is dry and cracked;
Her limbs have grown heavy and dropped to the ground,
Only to hold more live oak at the tips of each branch,
Grandmother tree brought us to silence.
“Grandmother, we are listening.”
“If you’ve been here since 1208 . . .”

Speechless again, we waited in silence.

Clearly the oldest tree we’ve ever seen,
We wonder how she survived
Her life on a plantation next to a swamp,
Through war and pestilence.
Happy Mother’s Day,
Grandmother Tree.
DOES THOMAS BERRY PROVIDE A FOUNDATIONAL SET OF PRINCIPLES FOR THE TRANSITION TO ECOZOIC SOCIETIES?

By Herman Greene

Author’s Note: For the first time I have combined in one article what I see as Thomas Berry’s guiding principles for ecozoic societies. I have also described the need to, and difficulty of, applying these principles in a real world context, namely that of an urbanized, globalized, technology- and energy-dependent world. This article will appear in the forthcoming issue of “The Ecozoic,” which will contain a collection of papers from the 2014 Thomas Berry Colloquium.

I’ve always felt that Thomas laid out a foundational set of principles for the transition to ecozoic societies. Much attention has been given to his work on the universe story, but not so much to his guidance on the transition to ecozoic societies. In this paper I would like to present what for me are the most important principles Thomas gave for this transition.

When attention has been given to Thomas’s vision for social transformation, it seems to me the focus has most often been on eco-communalism. I’ll use Paul Raskin’s definition of eco-communalism to explain what I mean by the term: Eco-communalism involves a “vision of bio-regionalism, localism, face-to-face democracy, and economic autarky.” “Economic autarky” refers to local or regional economies that are self-sufficient without the need for imports. Eco-communalism does not have to be understood as rigidly adhering to bio-regionalism, localism, and economic autarky, rather as holding these as being of high value. Eco-communalism differs from our present globalized economy where, when you pick up something as small and ordinary as a pencil and you may be holding something with inputs or processing involving several continents.

As I sometimes point out, Alibaba, the largest Chinese on-line-retailer, sold $17 billion worth of goods on Singles’ Day, the Chinese equivalent of Valentine’s Day. Consider how many people were involved in producing these goods, how their livelihoods depended on this work, the resources that were used, the many consumers who purchased the goods, the experiences they had in buying and using the goods, and the effects of the production, transportation, sale and consumption of the goods on the environment. These goods are the fruits of industrial


development. In a world of 7 billion people on the way to 11 billion by the latest UN estimates,³ is humanity to forgo industrial production and inter-regional, interstate, and/or international commerce?

We need the Genesis Farms, examples of how to live in harmony with nature on small scales. Meanwhile there is this world happening. For the first time in the history of humankind, more than 50% of the world’s people live in urban areas.⁴ When I traveled in India and China over the last decade, I was astonished to learn of all the cities with over a million people of which I had never heard. In China new cities in excess of this size are built and populated in a matter of years. There are 20 million people in the metropolitan area of Lagos, Nigeria, the largest city in Africa. There are 38 million people in the metropolitan area of Tokyo, Japan, the most populous in the world. For the foreseeable future we will live in an urbanized, globalized, technology- and energy-dependent world. Does Thomas give guidance to this world?

Paul Raskin of the Tellus Institute and his co-authors produced a book called Great Transition: Promise and Lure of the Times Ahead.⁵ It talks about three scenarios for the future. One is business as usual—just taking care of things as they are, making things more efficient, and continuing on the present trajectory of development with or without policy reform. Another is of barbarism involving two sub-scenarios of fortress world and breakdown. We must wonder if we are not heading to the barbarism scenario, because business as usual can’t serve all the people of the world and conditions will worsen as environmental degradation continues. We see a movement to fortress world—regions of prosperity and protection in the midst of an impoverished world. And in significant areas of the world, we are seeing breakdown. The third scenario is of “great transitions” to a sustainable world and there are two sub-scenarios. One is eco-communalism and the other is the “new sustainability paradigm”—the latter being change in the ordering principles of society but retention of a complex, globalized, urban societies.

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⁴ According to the 2014 revision of the World Urbanization Prospects by UN DESA’s Population Division: “54 per cent of the world’s people live in urban areas, a proportion that is expected to increase to 66 per cent by 2050. Projections show that urbanization combined with the overall growth of the world’s population could add another 2.5 billion people to urban populations by 2050, with close to 90 percent of the increase concentrated in Asia and Africa, according to a new United Nations report launched today.” United Nations Department of Economic and Social Affairs, “World’s Population Increasingly Urban with more than Half Living in Urban Areas,” July 10, 2014, available at http://www.un.org/en/development/desa/news/population/world-urbanization-prospects-2014.html (accessed April 18, 2017).”

Raskin and his co-authors take the position that eco-communalism will not be the dominant form of the great transition without first passing through some form of barbarization.\(^6\) I interpret this as meaning that if there is widespread collapse or repression (in fortress world), most of the world’s people may be forced into self-sufficient, subsistence communities and this is the only way the authors see eco-communalism becoming prevalent. Is Thomas preparing us for such a wrenching transition? There are writers on the left who foresee breakdown and a move to survivalist modes. Or does he provide guidance that would support the “new sustainability paradigm”?

Here are some of the characteristics of the three scenarios and their sub-scenarios:\(^7\):

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\(^6\) “While popular among some environmental and anarchistic subcultures, it is difficult to visualize a plausible path from the globalizing trends of today to eco-communalism that does not pass through some form of Barbarization.” Ibid., 15.

\(^7\) Ibid., 17.
Do we get to choose which of these scenarios we want to live in? Or are we, as Thomas wrote in *The Great Work*, thrown into a scenario by virtue only of being born in a certain time and place.\(^8\) What is needed? What is possible—remember that Alibaba sells $17 billion of goods on Singles’ Day? What guidance does Thomas give?

Professor Jim Peacock, who is here with us and teaches anthropology at this university, has students in his class on “Consciousness and Symbol” read *The Great Work*. He struggles with the questions his students ask about the book. They ask, what does Berry want us to do? I have wondered, what are the students asking when they ask this? Are they asking, how can humans live on Earth without making an impact? If so, there is no answer that Thomas or anyone else can give.

We long for a perfect answer where nature will be wild and free, pristine, untouched by civilization, and yet where we and other humans will have our needs and many or most of our wants met. When we think about sustainability even for a moment, however, we realize there can be no such answer. Thomas identified the longing for perfection as part of a millennial expectation of beatitude here on Earth. Throughout the modern period, at least since the 16\(^{th}\) century, this has been interwoven into the idea of progress, and in late modernity, especially beginning in the latter half of the 20\(^{th}\) century, with the vision of a technological wonderworld. Today as we enter a new 21\(^{st}\) century phase of technological innovation in genetic technology, nanotechnology, information technology, robotics, and energy, some visionaries offer the prospect of a world where, through these technologies, abundance not scarcity will be the problem and humans will live virtually (pun partially intended) forever.\(^9\)

Thomas would call this the technozoic vision of the future, one he regarded as false and dangerous...dangerous in the sense that he believed it was leading humanity on the wrong path. The modern period has been a journey of liberation from old authorities and restraints. Bruno Latour says that modernists revel in the escape from the bondage of the past and move to a Utopian future without realistic content.\(^10\) In contrast, he says that ecologists seek a

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\(^8\) We do not chose the moment of our birth, who are parents will be, our particular culture or the historical moment when we will be born. We do not choose the status of spiritual insight or political or economic conditions that will be the context of our lives. We are, as it were, thrown into existence with a challenge and a role that is beyond any personal choice. The nobility of our lives, however, depends upon the manner in which we come to understand and fulfill our assigned role.


practical vision of the future and in this future the new name for humans is “Earthbound.” Thomas gives guidance for the Earthbound. Yet technological innovation will not stop; what guidance does Thomas give for the use or control of technological innovation?

Before going into Thomas’s guidance, to guard against the tendency to wander back into a golden age of an agrarian past, I would like to offer an example to ground ourselves in reality. Let’s consider India and China, each with a population of more than one billion people, but for this example let’s say one billion. If each of those one billion people were to acquire and burn one 60-watt light bulb, it would take (without counting the manufacturing and shipping of the bulbs, or the delivery of electricity to them) 60 billion watts to power those light bulbs. So just to power one 60-watt light bulb for each of these people, there would be a need for an additional one hundred twenty 500-megawatt power plants, which would likely be coal powered.\(^{11}\) This illustrates the impact of only one small modern amenity when multiplied by one-seventh of the world’s people. We know that within only a few more years another billion people will be added to the human population and then the illustration would have to be multiplied by eight to see the global impact. Fortunately, LED’s and other efficiencies reduce the impact of the individual amenities—for example an LED may only require 15 watts of power—but even 15 watts multiplied by 8 billion is a huge number and this is for only one small modern amenity. Sustainability on a global scale is quite a puzzle.

So it is fitting that Thomas’s first guidance for the transition to ecozoic societies is that we have a great big job ahead, a “Great Work” to do. Then he follows this guidance with the counsel that we will be supported in the Great Work by the powers of the universe. He writes, “We must believe that those powers that assign our role bestow upon us the ability to fulfill this role. We must believe that we are cared for and guided by these same powers that bring us into being.”\(^ {12}\) And he gave these words of hope:

The basic mood of the future might well be one of confidence in the continuing revelation that takes place in and through Earth.
If the dynamics of the universe from the beginning shaped the course of the heavens, lighted the sun, and formed Earth,

\(^{11}\) I borrowed this example with modifications from Thomas Friedman, *Hot, Flat and Crowded* (New York: Farrar, Straus and Giroux, 2008), 31.

According to the World Bank, in 2014, 75.1% of India’s electric power was generated by coal, up from 49.1% in 1971. In China in 2014, 72.6% of its electric power was generated by coal up slightly from 70.1% in 1971. The World Bank, “Electricity Production from Coal Sources (% of Total), referencing International Energy Association statistics, available at [http://data.worldbank.org/indicator/EG.ELC.COAL.ZS](http://data.worldbank.org/indicator/EG.ELC.COAL.ZS) (accessed April 30, 2017).

\(^{12}\) Thomas Berry, *The Great Work*, 7. Page references in this section are to *The Great Work*. 
if this same dynamism 
brought forth the continents and seas and atmosphere, 
if it awakened life in the primordial cell 
and then brought into being 
the unnumbered variety of living beings, 
and finally brought us into being 
and guided us safely 
through the turbulent centuries, 
there is reason to believe 
that this same guiding process 
is precisely what has awakened in us 
our present understanding of ourselves 
and our relation to this stupendous process. 
Sensitized to such guidance from the very structure 
and functioning of the universe, 
we can have confidence in the future 
that awaits the human venture.\textsuperscript{13}

As to the nature of the Great Work, Thomas described it in two ways:

The Great Work...is to carry out the transition from a period of human devastation of the Earth to a period when humans would be present to the planet in a mutually beneficial manner. (p. 3)

The Great Work [is] the task of moving modern industrial civilization from its present devastating influence on the Earth to a more benign mode of presence. (p. 7)

As to the magnitude of the work, he wrote, “[The] transition has no historical parallel since the geobiological transition that took place 67 million years ago when the period of the dinosaurs was terminated and a new biological era began.” (p. 3) He said that the Great Work is an arduous task, one exceeding in its complexity that ever offered to humankind. He, also, said the Great work was of epic dimensions, one surpassing anything heretofore described under that term.

He observed, “The deepest cause of the present devastation is found in our mode of consciousness that has established a radical discontinuity between the human and other modes of being and the bestowal of all rights on the humans. [The other modes of being] have reality and value only through their use by the human.” (p. 4)

\textsuperscript{13} Thomas Berry, \textit{The Dream of the Earth} (San Francisco: Sierra Club Books. 1988), 137.
His most concise statement of what needs to be done is given in this one sentence with seven phrases: “The historical mission of our times is

1. to reinvent the human—
2. at the species level,
3. with critical reflection,
4. within the community of life-systems,
5. in a time-developmental context,
6. by means of story and
7. shared dream experience.” (p. 159)

Each of these phrases is important. I have heard Thomas say “within the community of life systems” is most important. For purposes of this Colloquium, however, I want to emphasize “through critical reflection.” I think most followers of Thomas have generally emphasized story and shared dream experience. Note that Thomas puts “with critical reflection,” before “story” and “shared dream experience.”

Let’s consider the importance of critical reflection. You have been to school and you probably remember a teacher you especially liked. You will say about the teacher, she changed my way of thinking, and 20-30 years later you’re still living out of what you learned from her. John Maynard Keynes wrote:

> The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influence, are usually the slaves of some defunct economist. Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back.\(^\text{14}\)

Both Thomas and Keynes made the same point: Ideas are operative in society and they exert a significant controlling influence over society. Thomas presented some powerful ideas and they need to be studied, interpreted, and applied. Further, he admonished us to do our own critical reflection to develop ideas and act on them.

Now I’d will discuss some of the guidelines Thomas gave for ecozoic societies. I have passed out the paper “Call for Ecozoic Societies.”¹⁵ In this paper I presented three pillars of ecozoic societies:

- The universe story (knowing)
- Bioregionalism (doing)
- Ecological spirituality (being)

With regard to the universe story, I state that it has important mythic and ritualistic aspects, but I also emphasize it has a knowing aspect. The universe story calls us to be Earth and universe literate. Each time we come to know about the dynamics, processes, flows, and materials of Earth, we engage the universe story. With regard to bioregionalism, Thomas says that a bioregion is a naturally occurring geographic area of Earth that contains an interacting community of life functioning as a relatively self-supporting system within the ever-renewing processes of nature. He further states that Earth sustains itself in its bioregional modes of expression. If this is true and we want to live sustainably, then we need to understand our bioregions and act in ways that support the communities of life within our bioregions. Not everything that supports a bioregion, however, is within the bioregion. For example, wind, water, and migrating animals among many other things are part of a global commons. So we also need to understand the global processes that sustain bioregions and act to support them as well. With regard to ecological spirituality, I emphasized what Thomas calls the psychic-spiritual dimension of Earth. When we have a spiritual experience of the natural world we are experiencing the spirituality that is present and operating within it, not something we are projecting upon it. Ecological spirituality has the gift of transcending spiritual and religious traditions that guide and sometimes divide the people of Earth. It is in the area of ecological spirituality that we can participate in the meta-religious mode that Thomas considers, as noted below, so important for the future.

Another paper I have passed out is “Our Way into the Future: Guides from The Great Work by Thomas Berry.”¹⁶ These are guides to the future I identified in the book, *The Great Work*. I ordered the guides under three headings, which give rise to three questions:

- We need to develop a viable mode of human presence on Earth; so when we act we should ask “Is it viable?”

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• We need to form a single community of life with the other Earth components; so when we act we should ask “Does it favor intimacy/community?”
• In our special mode of self-conscious awareness, we need to celebrate the universe; so when we act we should ask, “Does it celebrate the universe?”

The word viable is very interesting. It is based on the Latin word, *vita*, which means “life.” The meaning of viable that is pertinent to Thomas’s usage is “Capable of success or continuing effectiveness; practicable: *a viable plan; a viable national economy.*”¹⁷ The word also means capable of living or survival. Thomas guidelines are not guidelines for a Utopia, they are guidelines for life in its fullness, imperfections, and limitations. From a more somber standpoint, Thomas’s guidelines are given to reorient a mode of civilizational presence that is not viable.

With each of these three main guides, Thomas offered three paths

**Viability**
• We need to be Earth-centered, not human-centered
• We need to become self-limiting and accept creative discipline
• We need organic, ever-renewing economies, not extractive, terminal economies

**Single Community of Life**
• We live in a communion of subjects, not a collection of objects
• We need to understand our integral relation with Earth community through intimacy and ecology
• We need to reform comprehensively our cultures and institutions in light of this understanding

**Celebrate the universe in a special mode of conscious self-awareness**
• We need to celebrate the universe through story and shared dream experience
• We need to participate in the vast cosmic liturgy
• We need to join with others in a worldwide meta-religious movement of renewal

There are two other sets of broad principles that Thomas offers. The first set he called “The Determining Features of the Ecozoic Era.” These principles provide his essential guidance for the transition to the ecozoic. In a similar fashion to the way the above guides were taken from Thomas’s book *The Great Work*, these “determining features,” were taken from a lecture he


Here are the features:

1. Earth is a communion of subjects, not a collection of objects.
2. Earth exists and can survive only in its integral functioning. It cannot survive in fragments any more than any organism can survive in fragments. Yet, Earth is not a global sameness. It is a differentiated unity and must be sustained in the integrity and interrelations of its many bioregional modes of expression.
3. Earth is a one-time endowment. It is subject to irreversible damage in the major patterns of its functioning.
4. The human is derivative, Earth is primary. Earth must be the primary concern of every human institution, profession, program, and activity. In economics, for example, the first law of economics must be the preservation of the Earth economy. A rising Gross National Product with a declining Gross Earth Product reveals the absurdity of our present economy. It should be clear, in the medical profession, that we cannot have healthy people on a sick planet.
5. The entire pattern of functioning of Earth is altered in the transition from the Cenozoic to the Ecozoic era. The major developments of the Cenozoic took place entirely apart from any human intervention. In the Ecozoic, the human will have a comprehensive influence on almost everything that happens. While the human cannot make a blade of grass, there is liable not to be a blade of grass unless it is accepted, protected and fostered by the human. Our positive power of creativity in the natural life systems is minimal, while our power of negating is immense.
6. Progress, to be valid, must include the entire Earth in all its component aspects. To designate human plundering of the planet as progress is an unbearable distortion.

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19 Handout from the library of Santa Sabina Conference Center, San Rafael, California, 2004, except that Item 7 is from a similar list presented by Thomas Berry at an annual conference of the Center for Reflection on the Second Law held in Chapel Hill, North Carolina.
7. The Ecozoic can come into existence only though an appreciation of the feminine dimension of Earth, through a liberation of women from the oppressions and the constraints that they have endured in the past, and through the shared responsibility of both women and men for establishing an integral Earth community.

8. A new role exists for both science and technology in the Ecozoic period. Science must provide a more integral understanding of the functioning of Earth and how human activity and Earth activity can be mutually enhancing. Our biological sciences especially need to develop a “feel for the organism,” a greater sense of the ultimate subjectivities present in the various living beings of Earth. Our human technologies must become more coherent with the technologies of the natural world.

9. New ethical principles must emerge which recognize the absolute evils of biocide and geocide as well as the other evils concerned more directly with the human.

10. New religious sensitivities are needed that will recognize the sacred dimension of Earth and will accept the natural world as the primary manifestation of the divine.

11. A new language, an Ecozoic language, is needed. Our language is radically inadequate. A new dictionary should be compiled with new definitions of existing words and an introduction of new words for the new modes of being and functioning that are emerging.

12. Psychologically all the archetypes of the collective unconscious attain a new validity and a new pattern of functioning, especially in our understanding of the symbols of the Tree of Life, the heroic journey, death and rebirth, the mandala, and the Great Mother.

13. New developments can be expected in ritual, in all the arts, and in literature. In drama especially, extraordinary opportunities exist in the monumental issues that are being worked out in these times. The conflicts that until now have been situated simply within the human drama are magnified considerably through the larger contours of conflict as these emerge in this stupendous transition from the terminal Cenozoic to the emerging Ecozoic. What we are dealing with is in epic dimensions beyond anything thus far expressed under this term.

14. Mitigation of the present ruinous situation, the recycling of materials, the diminishment of consumption, the healing of damaged ecosystems—all this will be in vain if we do these things to make the present industrial systems acceptable. They must all be done, but in order to build a new order of things.

These are such a profound set of principles that it is almost overwhelming to get into them. Where should one start...Earth is a communion of subjects?...Earth is primary, the human is derivative? All of these features serve to reorient humans within the community of life. They make clear that humans are integral with and dependent on Earth, and yet how humans, in what must be described as hubris, have come to lord over the other Earth components to the detriment of all. There are calls to become coherent with the functioning of Earth, for the way
Earth functions is vital to life processes. We can’t claim human success if the functioning of these life processes are declining.

When I read these features, I’m always captivated by the 5th feature and the 14th feature. In brief the 5th feature is a description of the Anthropocene—humans have become the primary geo-biological force on Earth and are involved in all aspects of Earth’s functioning. The 5th feature ends with this warning: “Our positive power of creativity in the natural life systems is minimal, while our power of negating is immense.”

The 14th feature also ends with a warning: All the things we do like recycling, environmental remediation, and reduction of consumption “will be in vain if we do these things to make the present industrial systems acceptable. They must all be done, but in order to build a new order of things.”

Upon reading these 14 features, many will find them easy to accept as wise counsel, but they will likely, also, find them difficult to live by and act upon, because they are not self-explanatory. What is this “new order of things”? What is this post-industrial society? Surely it is neither what is meant when people talk of the United States as a post-industrial society, nor a world of ecovillages where everyone presses mud bricks and lives off the land.

Further, while we may like the idea of an ecozoic dictionary and enthusiastically repeat Thomas’s call for this dictionary, where is this dictionary more than 25 years after Thomas’s call for it? How long is your personal list of words that would go into it?

To say it is difficult to understand these principles in practical terms and apply them is, however, in no way a criticism of them. What I am advocating is to move beyond repetition of these words to a more thorough understanding and explication of them, and beyond that to creative applications of them. Searching Thomas’s texts for their meanings is an important starting point, but the primary task is to conduct your own study of them and expand upon them.

The second set of principles Thomas calls “Twelve Principles for Understanding the Universe and the Role of the Human in the Universe Process.”

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Here are those principles:\(^{21}\)

1. The universe, the solar system, and the planet Earth in themselves and in their evolutionary emergence constitute for the human community the primary revelation of that ultimate mystery whence all things emerge into being.

2. The universe is a unity, an interacting and genetically-related community of beings bound together in an inseparable relationship in space and time. The unity of Earth is especially clear; each being of the planet is profoundly implicated in the existence and functioning of every other being of the planet.

3. From its beginning, the universe is a psychic as well as a physical reality.

4. The three basic laws of the universe at all levels of reality are differentiation, subjectivity, and communion. These laws identify the reality, the values, and the directions in which the universe is proceeding.

5. The universe has a violent as well as a harmonious aspect, but it is consistently creative in the larger arc of its development.

6. The human is that being in whom the universe activates, reflects upon, and celebrates itself in conscious self-awareness.

7. Earth, within the solar system, is a self-emergent, self-propagating, self-nourishing, self-educating, self-governing, self-healing, self-fulfilling community. All particular life systems in their being, their sexuality, their nourishment, their education, their governing, their healing, their fulfillment, must integrate their functioning within this larger complex of mutually dependent Earth systems.

8. The genetic coding process is the process through which the world of the living articulates itself in its being and its activities. The great wonder is the creative interaction of the multiple codings among themselves.

9. At the human level, genetic coding mandates a further trans-genetic cultural coding by which specifically human qualities find expression. Cultural coding is carried on by educational processes.

10. The emergent process of the universe is irreversible and non-repeatable in the existing world order. The movement from non-life to life on the planet Earth is a one-time event. So too, the movement from life to the human form of consciousness. So also the transition from the earlier to the later forms of human culture.

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\(^{21}\) Thomas Berry would continually revise papers he wrote. There are multiple versions of the “the Determining Features of the Ecozoic Era,” and of “Twelve Principles for Understanding the Universe and the Role of the Human in the Universe Process.” For another version of the latter see Thomas Berry, “Twelve principles for Understanding the Universe,” Appendix 1 to *Evening Thoughts: Reflecting on Earth as Sacred Community*, ed., Mary Evelyn Tucker (San Francisco: Sierra Club Books, 2003), 145-47. The version presented in the text above is my preferred version.
11. The historical sequence of cultural periods can be identified as the tribal-shamanic period, the Neolithic village period, the classical civilizational period, the scientific-technological period, and the emerging ecological period.

12. The main human task of the immediate future is to assist in activating the intercommunion of all the living and non-living components of the Earth community in what can be considered the emerging ecological period of Earth development.

These principles present key points in Thomas’s philosophical understanding of the nature of the world. To an extent these principles are based on empirical investigation, but others are presuppositions on which empirical investigations and action are to be based. The philosopher E. Maynard Adams explained this distinction this way:

Although much of what is taken for granted in our efforts to know and to cope with reality is no doubt subject to empirical confirmation or correction, the most fundamental assumptions and beliefs that constitute the mind of the culture are not. They pertain to the categorial features and structures of experience and thought as well as to the basic constitutive features and structures of whatever the subject matter of our experience and thought may be, including a comprehensive view of the world. We do not discover these features and structures of things by an empirical investigation of them in the way in which we discover contingent features and structures; rather, the way we empirically investigate and think about any subject matter presupposes commitments about its categorial features and structures. These presuppositions govern the outcome of empirical investigations rather than being the products of such investigations. This is not to say that our empirical findings may not generate problems that call into question our categorial commitments, but these problems are of a different order from the logical problems among empirical beliefs that force revisions to keep them faithful to reality.22

The modern worldview has been dominated for centuries by an understanding of the nature of the world as being mechanistic, in other words as being composed of inert matter in motion. The higher capabilities we see in living beings to sense, feel, and be conscious, are said to be attributable to emergent complexity. Change in nature is deterministic, the product of antecedent cause and effect relationships...except when chance mysteriously comes into play. As Adams in his writing often states, in this mechanistic conception value, meaning, creativity, and purposeful action are excluded from explanations of the universe.23 Further, in this conception, even humans are ultimately to be understood as fully determined machines.


23 Science...eliminated, normative, value, and meaning concepts, the fundamental categories of the humanities and humanistic thought in general, from its descriptive/explanatory conceptual system because they cannot be funded with meaning by sensory experience, and so statements containing them
Berry’s 12 principles are incompatible with this mechanistic view. Principle 3 holds up the psychic dimension of the universe. A definition in the *Merriam-Webster Dictionary* helps in understanding what Thomas meant when he used this term: Psychic: means “lying outside the sphere of physical science or knowledge: immaterial, moral, or spiritual in origin or force.” Another meaning of psychic in this dictionary is “is of or relating to the psyche,” which can mean all the elements constituting the human mind including emotion and morality. Thomas extends the psychic beyond humans when he says in Principle 1 that the universe is composed of subjects—in other words all beings in the universe have experience and some creativity.

You might consider Thomas’s 12 principles of the universe as being extraneous to an environmental ethic. With the exception of feature 1 in the “Determining Features of the Universe,” you might, also, say there is no necessary relationship between those features and the 12 twelve principles. For Thomas, however, they were not extraneous and the two lists were necessarily related. As I stated in my first lecture, Thomas was concerned with the human phenomenon: not just the human phenomenon as it related to human beings, but the human phenomenon as it related to how the universe developed from the beginning through both psychic and physical processes.

This aspect of the universe was recognized in indigenous traditions who experienced a living universe, but it was also identified by Teilhard de Chardin in his analysis of the evolutionary dynamics of the universe and by Whitehead in his metaphysics. Further even some naturalistic scientists, as they have come to understand the fine tuning of the universe in the earliest period of its emergence that made Earth and humans possible, speak of an “anthropic principle.”

The 12 principles were also needed because of Thomas’s understanding of humans as cultural beings. Thomas, a cultural historian, knew that humans seek ways of understanding the larger structures of the universe and based on this, in part, they shape their societies. He also knew that humans have a psychic connection with the universe—an example is the wonder you may feel when you gaze at the Milky Way on a dark night. Thomas saw the need for connection with

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[could] not be confirmed or falsified by scientific methods of inquiry. Thus, according to the presuppositions of modern science, there are no normative laws, values, inherent structures of meaning, ends, or teleological causality in nature—only existential and factual structures and elemental and antecedent causes that engage them.

Ibid., 353-54.


25 The anthropic principle means “either of two principles in cosmology: a : conditions that are observed in the universe must allow the observer to exist—called also weak anthropic principle; b : the universe must have properties that make inevitable the existence of intelligent life—called also strong anthropic principle.” [https://www.merriam-webster.com/dictionary/anthropic%20principle](https://www.merriam-webster.com/dictionary/anthropic%20principle) (accessed April 30, 2017).
the psychic dimension of the evolutionary process as a way of empowering humanity for the stupendous task of the transition to the Ecozoic era. These 12 principles foster this connection.

Based on my own extensive conversations with Thomas and my reading of his work, I believe Thomas would say the 12 principles are at the base of his work and they are essential to the transition to ecozoic societies. Before leaving the 12 principles I would add that, like the features of the universe, the 12 principles need to be studied, developed, and applied.

So I have presented some of Thomas’s key guidance for the transition to ecozoic societies. These I believe are the most important ones, but there are many more.

I will close by reflecting on the question I asked earlier, whether Thomas’s guidance applies to an urbanized, globalized, technology- and energy-dependent world. I will answer this by reference to guidance given by two other authors. The following were identified as areas where transformational leadership is needed in books by David Orr\textsuperscript{26} and D. Paul Schafer\textsuperscript{27}:

(i) creating a new theoretical, practical, historical and philosophical framework for the world of the future (with an emphasis on the importance of the cultural dimension of life and of strengthening this dimension);
(ii) dealing with the intimate relationship between people and the natural environment;
(iii) providing uncommon clarity about our best economic and energy options;
(iv) helping people understand and face what will be increasingly difficult circumstances; and
(v) fostering a vision of a humane and decent future.

If you believe that modernity provides an adequate framework for the future, then you will not see the need for Thomas’s 12 principles. If you don’t and you find deconstructive post-modernism helpful but as not providing an adequate philosophy, then perhaps you will, especially if Thomas’s writing is supported by philosophies new and old that give his writing support.

If you believe in the singularity and that abundance will become our problem and not scarcity, then you will not see the need for Thomas’s vision of a viable future that is Earth-centered and involves self-limitation and creative discipline. If you fear environmental and social collapse, then you may find Thomas’s realism challenging but nonetheless refreshing.

\textsuperscript{26}David Orr, \textit{Down to the Wire: Confronting Climate Collapse} (New York, Oxford University Press, 2009).

\textsuperscript{27}D. Paul Schafer, \textit{Revolution or Renaissance: Making the Transition from an Economic Age to a Cultural Age} (Ottawa, Quebec: Ottawa University Press, 2008).
If you believe we face increasingly difficult circumstances and will need a shared psychic energy to move into the ecozoic, then you may find Thomas’s work insightful.

Applying Thomas’s work to an urbanized, globalized, technology- and energy-dependent world is not easy. For example, the “precautionary principle” might be thought of as a way of implementing that part of feature 5, which states: “Our positive power of creativity in the natural life systems is minimal, while our power of negating is immense.” Yet applying this principle is difficult and its status in practice is limited at present. The Great Work depends on it, however, and when it is pursued with the understandings of Thomas as background, the work on the principle gains relevance and becomes more urgent.

Does Thomas provide guidance to an urbanized, globalized, technology- and energy-dependent world? I will conclude by saying yes, but we must first understand that Thomas’s work is fundamentally a judgment of that world. In his last years he said that the 21st century must reverse the course of the 20th century. I think it is a mistake, however, to interpret Thomas’s guidance as backward looking and as calling for a return to an agrarian past. While Thomas offered little regarding how his work provides guidance to this urbanized, globalized, technology- and energy-dependent world, I think taking Thomas seriously requires application to that world simply because it is the world in which we live. It is the world in which most of the

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29 The authors of the above article, hastily add,

We examine the implications of the precautionary principle for environmental scientists, whose work often involves studying highly complex, poorly understood systems, while at the same time facing conflicting pressures from those who seek to balance economic growth and environmental protection. In this complicated and contested terrain, it is useful to examine the methodologies of science and to consider ways that, without compromising integrity and objectivity, research can be more or less helpful to those who would act with precaution.

Ibid. The authors are right: This is difficult—it is the Great Work

30 One place where Thomas did provide such guidance was when he affirmed “The radical transformations suggested by the ecologists—organic farming, community-supported agriculture, solar-hydrogen energy systems, redesign of our cities, elimination of the automobile in its present form, restoration of local village economies, education for a post-petroleum way of life, and a jurisprudence that recognizes the rights of natural modes of being.” Thomas Berry, The Great Work, 110.
7 billion people on Earth live, and it is the world that brings us into the Anthropocene and affects all of life.

Thomas was a profound thinker, a seminal thinker. He passed the torch to us. Now his work must be ours.

**BEING DREAMT**

*By Katherine Savage*

Sometimes dissonance sneaks up on you like a shy child wanting a hug, but at other times, the child gleefully turns a spurting hose on your shocked and screaming face. After reading Martin Shaw’s notion of being actively dreamt by the Earth\(^1\), I knew I’d been soaked to the soul, but the shock arose from realizing I understood this experience, while still clinging to the traditional understandings of who and what does our dreaming. Welcome to dissonance—the discomfort of disconnection between truth and belief.

Martin is Director of the Westcountry School of Myth and Story—a writer, teacher and mythologist. Being dreamt was his experience, and that of many before him who have lived with their ear close to the earth. The idea is that if you keep your ear there long enough and tune in, you overhear the dreams of a planet. In what aboriginal teachers call Wild Land Dreaming, we are connected to a particular place as its spirit enters our earthly mother, who is gestating us while walking the land. Our bodies return this spirit when we enter the earth again. More than our ‘I’ dreams, these are our collective ruminations drawn into the immense imagination of the Earth itself.

I have studied this idea in the words of others, their experiences so compelling as to take the shape of a belief system. But until recently, being dreamt by an animate Earth had not been my experience, at least not one I could bring into my awareness. If asked, I would have declared myself the dreamer and testified my dream world was the not-real, non-place I visit with my body action suspended, to work out what is difficult during my day and see what is of value to bring back to my wakefulness. That it had a function, with me as director of its scape and scripts, had not made it real—only useful.

That was before, and explains the feeling I have now of being doused by his words. For I have recently fulfilled a 30-year longing to move to a particular planetary place where I feel ample resonance with my surroundings. Acting on this dream has satisfied a long-held question of whether the desire to make these mountains and this river my home was a frivolous wish for scenery or a deep soul need for reconnection with the Earth. With the prodding of dissonance from Martin’s words, the question leapt up to splash me in the face . . . *whose dream was it, to bring myself here?*

Whether by stealth or a soaking, behind many of our ‘nooo . . .’ responses is an invitation to move through our reasons for resistance, so that we can arrive in the more comfortable and life-giving space of ‘yessss . . .’ Tension begs for release, tears ask for mending, dissonance longs for resonance. In my case, ‘no’ was the rigid idea that my dreams belong to me, and ‘yes’ the realization I was already on the journey from being the dreamer, to being dreamt.

Intuition and rational thinking are frequently squaring off in me to find their foot-hold and build empires in their name. But increasingly as I age, the territories of real and not-real lose their purchase. I am more inclined to yield to mystery than dissect it. I expect this is developmental, as I’m in the life stage of turning to face the mystery of passing my body and spirit back to the planet. I actively wonder, for example, if that final letting go of breath is somehow like turning my body over to sleep each night, or like how I once eased a baby into the world by sheathing the sword I was using to fight the frightful pain of her birth. Letting go of the reins in other words, like we do in dreaming.

I see in these experiences that the body’s wisdom in what to do sometimes requires the thinking mind to get out of its way. If surrendering surety of what is real and what is not helps me open to that way of knowing and prepares me for dying, I am inclined to yield. I want to build a foot-bridge between the empires of thinking and feeling, so that commerce is commonplace and there are fewer impediments to travel. From the sub-conscious knowing I have been dreamt back to the territory where I believe I have not, the question to help me span this chasm is simple, but big: How is it possible that I have been dreamt by this place?

When I first stepped into it, I knew from experience to wait for that predictable anthropocentric answer to come out posturing for a satisfied pat on its head. Without artfully reshaping it into a keystone that includes benefits to the more-than-human world, there would be no resonance. As anticipated, species superiority spoke of my deserving this place of power and beauty in which I now reside. The manifestation of this planet’s best dreams is naturally the most evolved creature, and its lavishly appointed environs a just reward. But given our nightmarish effects, a sagacious planet would not have dreamed me here for a pretentious display of my supreme species capabilities.

So moving on . . . but not quite. I find, in my outright rejection of species preeminence, a ‘however.’ I do, as a human, have capacities which enable me to critically consider my beliefs. The one keeping me from understanding myself to be dreamt, is that there is no-thing other than me doing my dreaming. Yet I know from questing into my potentialities for being magical, that humans can develop the skills of dreaming with awareness (lucid dreaming), and by doing so, we enhance our capacity to think about our thinking (meta-cognition). This means dreaming is one manifestation of our distinguishing ability as a species to self-reflect, and to know that we know we are dreaming brings this dark-time gift into the light of ‘real.’ Dreaming, therefore, happens along a continuum of consciousness that merges the purposes of our waking and sleeping experiences.
And through my rational thinking, I begin to find my way in to the truth of my experience. Because the events that soften reality’s boundaries and open continuums of wakefulness seem to be purposed, they could be viewed as an invitation from a source of wisdom deeper than our own. Here is where faith that there is a ‘something’ wiser than us, is helpful. When we allow that intelligence to speak to and through us, we are nudged to a more generative point of view, an enlarged state of being. We can, through dreaming, become a decidedly more helpful species.

Therefore, I’ve already begun the journey to understanding I am dreamt, by viewing my dreams as intentionally meaningful. The trip is cut short however, if I continue to view that expedition of enrichment as a dream inspired by me, for only me. My short trip, when collected and bundled up with everyone else’s, is now manifesting as less time on the planet for our species. Too frequently we fail to display the good of our dreaming, and may be leaving because of it. What could transpire if we came to understand that the purpose of dreaming was not to solicit our ‘I’s’ to work out personal dramas, but for the collective ‘we’ to tap into the wisdom of that which created us for the benefit of all? Could we see how to stay on the planet, and do it?

If meaning to our creation was intended, then before our manifestation there was a dream of what we could and should be—the Creator’s dream. We know from our enlarged understanding of dreaming abilities, that the Creator has not stopped dreaming of and through us. In giving us the ability to self-reflect, the Creator devised a way by which to continue fomenting the original energy which gave birth not only to us, but to everything and all there is. Through us, the Creator is still evolving what can be made of matter that energetically and enthusiastically explodes.

As a human with my particular attributes, I have been an expression of the planet’s reverie for 58 years, the possibility of human form for 24 years prior, and the raw stuff of dreams from which forms are made since that primordial explosion of intense temperatures and density at time’s beginning. I have been imagined and re-imagined unimaginable times, and then given form.

And throughout these many forms, the Creator dreams. In some of these forms, the capacity to know one is dreaming is given, and in some not, but in all forms there is the expression of a beautiful dream. This planet is the most beautiful dream of dreams. All forms of it are part of the landscape in which the Creator works out the volatile tensions of what to be. All dream with the Creator under the dark of night sky, to experience the universe opening to the unending mystery of what we are and could be. All vision with the Creator in the dark of the underground, to witness the promise of decay and the seed that falls into it. All feel the molten core of the dark center fueling life from the inside. All give over their separateness to invite the dark of dream-time in and let it have its way, to be made again.

Of all these forms, who is to say which is more evolved? A rock knows how to be fully rock, while a human depends on having its waking life barriers removed by sleep to know how to be
fully human. Still, in whatever way we are endowed with its matter, the Earth makes its dream clear: all forms are to rise up to be their authentic manifestations of what was imagined, and then fall back into the reverie of the planet to be dreamed again.

My own attempts at embodiment look like this: when I encounter species kin who are difficult, I gain height with mountains ridging up my spine. Dissolution is in this: when I experience material threats to safety and security, I flow through their expectations of stress with the river in my veins. Undoubtedly, the revelations in how to be a planetary citizen will continue, but others of my kind have seen for some time the effects of a sensual planet claiming me in love. They are witnessing the dream of this place emanating from me in choices made and not made, as I orient through its landscape, following the song-lines Black Mountain Spirit and Toe River Spirit lay down. Because of the wildness here, its dream roars loudly enough through me for others to imagine they hear dreaming of their own earthscape. For even in the places where humans have striven to keep the natural world from becoming what it wants to be, the Earth continues to dream. Though we mute its voice with our activity, nature never stops itself from dreaming, then becoming, and dreaming again.

Looking back over 30 years of longing to live here, it is possible now to see how I was also longed for. Each time I drove away, I was given dissonance so that I would understand the dreams of a particular place are not to be dismissed. When I trusted the spirits of this place and moved to be close to them, I was given the resonance of orienting my life from their emanations in the earthscape features. They sing ceaselessly of the Earth’s dream – that I know the natural world to be my only true home.

Hear now the story of how my experiences with a place were transformed, artful stroke by stroke, into a keystone that bridges truth and belief. May it help you turn the notes of the dreams of your place into a song-line by which to orient your human life.

**Verse 1**
Take a thought that comes to you in a particular place in the natural world, where you find yourself saying for example, ‘It is beautiful here.” Remember this later and think it would be nice to return.

**Verse 2**
When a free weekend appears, visit it again. Sit in the place where you became aware of its beauty, and experience the affirmation of your view. Wander a bit in its landscape and regard its features. See that they make a room, where there is a chair for you. Pick up a rock that fixes itself to your eye and pocket it. Upon leaving, linger, and hear yourself tell the place goodbye.

On days when humans have narrowed your day with their shallow lives, feel the rock in your pocket and conjure the place. Feel your body loosen its grip on this world. Have the thought that you can perhaps suffer a return, because you are less of it now.
Verse 3
Stretch open the predictability of having your days’ activities dictated by others, by X’ing out the weekend of your return. After signifying your intent to be in charge of what you do, turn it over to the place when you arrive. On its agenda is your rest and play. Play looks like meeting the invitations of its features to interact with them—a dance of call and respond. Rest looks like sinking your body into a hollowed out place that was surely made just for you.

Back home, you wish that your bed was this place, and drag your pillow and blankets outside at night in search of its kin. You wish that your play felt less like achievement, and you had no need of alcohol to access it.

Verse 4
Bring into your awareness that how well you get through your days is contingent upon whether there is an X’d out weekend on your calendar. Upon arrival at the place, you feel greeted just by having planned to greet it. You note the rush of relief from not being betrayed—it is still there and still beautiful—followed by the flush of gratitude through your eyes.

When the place is at your back and you are walking away, note your resignation falter, as if you have been found at fault in your turning. The thought speaks itself—what if the day comes when I do not leave?

Verse 5
As your time and familiarity with the place increase, you feel the features begin to conspire. There is the art of objects arranged as has been communicated to your hands, the art of your body’s movements as has been choreographed by the earthscape features.

Back home, there is a change in your dreams—the return of childhood dreams in which you flew, and of adult dreams in which you succumbed. Now you fly higher, and the place is the landscape of your flight. You transcend the unresolvable threats to life and limb: you ask the snake to bite, you want the tornado to whirl and whip you.

Verse 6
Despair at the forecast of rain or snow for your X’d weekend becomes determination to acquire whatever accoutrements to the human body are needed to greet the weather that will come, despite your love of comfort.

You find yourself craving big weather, of being spun by the planet, of yielding to and celebrating your impermanence. Your X becomes a √.
Verse 7
Weekends at the place become week-long, and you hear yourself telling others you cannot come to their event, because it coincides with your trip to the place. You want them to know how important the place is to you. You realize you are no longer visiting, but pilgrimaging. As you kneel there with gratitude, you know this posture to be worship. You feel increased. You understand its holiness was not made so by your gratitude, but has always been.

On your home altar, you place the ever increasing number of gifts offered there—a feather of transcendence, a bone of grounding, a rock or twist of wood immortalizing flow.

Verse 8
Then the day arrives, of no arrival and departure. You understand you are in conversation with the place whether you are there or here. This conversation, the one you thought you started when you said the place was beautiful, was actually your response. The place itself had designs on you from the beginning, to move its pulsing energy through your body until you knew yourself to be claimed. The metaphors you thought you had made of how it is there, were its medial messages until you understood the literal life of the place in you. It is not, and never was, something you brought home in your pocket and put on your altar. It is the Earth itself becoming your blood and bone.

Then you know.

You, my friend, have been dreamt.

AN EMPIRE OF THINGS: AN ECOLOGICAL RESPONSE

By Roy Morrison

Editor’s Note: Roy Morrison’s latest book is “Sustainability Sutra: An Ecological Investigation.”

Morrison argues for a transition to ecological civilization using market mechanisms and pursuing a global growth strategy with a focus on sustainability. He proposes ecological consumption taxation, new market rules, fiscal and monetary policies, and investment strategies. Morrison’s website is EcoCivilization.info.

Is there a saving ecological response possible to the Empire of Things, the fevered consumerist trajectory traced by Frank Trentmann raging not only in shopping malls across America, but


now in China and India?

I believe there is a clear path to escape ecological catastrophe as a consequence of both our proclivities for consumption and the enormous infrastructure requirements that support them. Simply put, economic growth in the 21st century must mean ecological improvement.

This is not an easy task. But, once examined, what’s needed are two basic changes in business and pollution as usual. The good news is that these changes do not require an end to global desire for more, both in terms of individual consumption and the generation of profit.

We've made two logical mistakes that have made it hard to see other possible outcomes. First, the fact that the history of economic growth has meant increasing pollution, depletion, and ecological damage under existing market rules, law, and practices does not mean that an alternative set of market rules, laws, and practices cannot lead to sustainable ends.

Second, consumption to our heart’s delight is not limited to material objects. Consumption can follow a different path and continue almost limitless in information--in dematerialized software, data, entertainment, virtual reality, services, social networks, relationships that are already the high profit centers of the 21st century.

The largest corporations by market capitalization in the US stock market in 2016 are Apple, Google, Microsoft, Amazon and Facebook. The most money to be made comes from selling next to nothing. The marginal ecological consequences of the consumption of one more immaterial product via a renewably powered web is similarly next to nothing. We can find our wants satisfied by unearthly delights. Greed and gluttony and envy now serving sustainable ends.

Economic growth can result in both profit and ecological improvement, the health and regeneration of natural capital as well as the growth of finance capital. To take one clear example, the global transformation to an efficient, renewable energy system to replace all fossil fuels and nuclear energy will require many trillions of dollars in productive and profitable investment and lead to enormous, and desperately needed ecological improvement, which will save us from climate catastrophe.

Similar profitable and just in time ecological regimes to prevent catastrophe can be instituted for agriculture, forestry, fisheries, aquaculture, ecological industrial production based on zero waste and zero pollution where all outputs become inputs for other processes.

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Frank Trentmann unfolds the extraordinary story of our modern material world, from Renaissance Italy and late Ming China to today’s global economy. . . . With an eye to the present and future, Frank Trentmann provides a long view on the global challenges of our relentless pursuit of more—from waste and debt to stress and inequality. A masterpiece of research and storytelling many years in the making, Empire of Things recounts the epic history of the goods that have seduced, enriched and unsettled our lives over the past six hundred years.
The problems we face are not essentially technical, but political. Market rules, laws, commercial codes, consumer customs must mean that sustainable products become less expense, gain market share, and become more profitable, while unsustainable products become more expensive, lose market share, and become less profitable. A range of ecological taxes, for example, an ecological value added tax placed on all goods and services, can send clear sustainable price signals throughout the economy and be combined with a negative income tax to mitigate the regressive effects of consumption taxes. Yes this means that politically the power of polluters must be overcome and ecological norms must be embraced or our market system and our civilization will destroy itself.

Laws can mandate yearly reduction in the amount of pollutants, such as carbon dioxide, for example, to reach a global sustainable level of around 21 gigatons carbon dioxide a year. In personal terms, this is about 3 tons of carbon dioxide per person per year globally (for a 7 billion population). We'd also need to remove carbon from the atmosphere and sequester it in soil and biomass to return to the 300 parts per million carbon dioxide range, for example, by using CoolTerra biocarbon technology.

To make this happen we need to take advantage of zero pollution renewable technologies and second law of thermodynamics efficiency improvements. And we each need to understand our personal, neighborhood, city, state, and national levels of carbon dioxide emissions and how we can reduce them over time to sustainable levels. According to the World Bank, the global average is now under 5 metric tons per person of carbon dioxide per person per year; in China it is 7.6 tons; and in the US it is 16.4 tons.

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3 “Cool Terra® products are engineered to improve soil health, reduce water consumption and help optimize fertilizer use while sequestering substantial amounts of carbon. The highly porous physical structure of Cool Terra also makes it a promising delivery system for microbials and nutritionals designed to enhance plant growth and productivity.” See [http://www.coolplanet.com/cool-terra/what-is-cool-terra/](http://www.coolplanet.com/cool-terra/what-is-cool-terra/) (accessed May 19, 2017)

To accomplish the transformation from our world of ruinous consumption toward sustainability will require a comprehensive embrace of new market rules, laws, codes, and customs. This must include the transfer of capital and information and investment by the rich nations to poor nations. The Chinese new Silk Road efforts, One Belt and One Road, for trade, financing, and investment in Asia, including HVDC renewable grid energy transmission, supported by $40 billion from the Chinese Silk Road Fund and $100 billion from the Asia Infrastructure Development Bank are examples of steps in the right direction.\(^5\)

The ice is melting. Temperature and the seas are rising. Carbon dioxide is now over 400 parts per million in the atmosphere. Water is now bubbling up in the streets of Miami at high tide. Coral reefs are bleached white and perishing from warming oceans. Unfortunately, what is happening relatively slowly today is not a guide for tomorrow.

At a certain point, just enough carbon dioxide in the atmosphere, combined with methane from melting permafrost, and an ice free Arctic Ocean in the summer will mean that climate change will become accelerated and non-linear. If this happens, we will find ourselves struggling to survive in a new climate. The great processes of sustainability, of co-evolution between biosphere and planet in response to all influences that helps create and maintain conditions maximally favorable for all life will mean that life will survive yet another mass extinction and once again thrive. Whether humanity is one of those favored species is an open question. What is beyond doubt is that global civilization as we have known it will not survive if we do not take steps to mitigate the extent of climate catastrophe by changing our polluting ways before it is too late.

We can build a global order that is based on low pollution, high profit, and social justice where economic growth means ecological improvement and escape the worst consequences of an unmitigated Empire of Things. Whether we do so is really up to all of us.

**MY COUNTRY ‘TIS OF THEE**

*By Alice Loyd*

Events of past months have stirred me to a patriotism I never thought I’d feel for my nation. From childhood my allegiance has been universal—I fell in love with the one-world concept when, in Camp Fire Girls, during summer camp we sang these words to the tune “Finlandia”:

My country’s skies are bluer than the ocean,
And sunlight beams on clover leaf and pine.
But other lands have sunlight too, and clover

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And skies are sometimes blue as mine.
Oh hear my prayer, thou God of all the nations,
A prayer for peace for lands afar and mine.”

When I was a young mother I dreamed of raising a United Nations flag in front of our house. Other homes flew the Stars and Stripes, but I identified with a larger geography. In those years I didn’t have particular criticisms of my country; I was merely attached to something bigger—to the whole of which this nation is a part. My nation-level political positions were beginning to be formed as far back as high school, however, and even earlier if I track inner resistance to racial injustice. I didn’t live in a setting or with people who encouraged political thinking, though, and political activism seemed out of reach for me even during the Vietnam War in the 60’s when I lived next to a college campus.

I began advocating with government officials on behalf of environmental concerns in 1987, and after seeing how one-party rule has been utilized since 2011 in North Carolina, my advocacy has broadened. I’ve become strongly attached to traditional American democratic principles. With events at the federal level since early 2008—with Trump now in office and Republicans controlling the US Congress and Supreme Court and being determined to undermine our democracy—I’ve come to revere the sacred secret ballot and the one-voice/one-vote ideal which politicians in the United States once had to declare they supported. The extent to which Citizens United, gerrymandering, and voter suppression laws have come to override rights I had been taught were constitutionally guaranteed has driven me to read the Constitution for myself. I’m feeling proud of that lofty founding document, despite its race, gender, and class omissions and wrong assumptions. It was a fine beginning, and only needs to be brought into the present to support current widely-shared cultural assumptions that are being disregarded by elected representatives.

The 2016 presidential election made me painfully aware of how important it is to guarantee and exercise the right to vote, because I see now, if government proceeds in the direction of structures that ignore the will of a majority of voters, that government of the people could indeed perish. But what made the 2016 election particularly painful is that it showed a large number of people no longer asking their government to represent them at all, and another large number asking it to violate the principles on which it was founded.

The present upwelling of political activism arises from the large number of people who share my concerns. The most-publicized actions are labeled as Trump resistance, but many try to be bi-partisan in their objectives and participation. One pointedly bipartisan effort is the March on Harrisburg that began on May 13, 2017, in Philadelphia. It asks Pennsylvania lawmakers to enact three reforms: automatic voter registration, gerrymandering reform, and a gift ban for legislators. A core group is marching the 100-mile distance between the cities and holding awareness-raising events along the way to highlight “The State of Our Republic: The Fight for

1 Words by Lloyd Stone set to melody “Finlandia” by Jean Sibelius
Democracy in Pennsylvania and the United States.” Explained Rachel Murphy, chair of the march’s art committee, “Whether conservative or liberal, Americans prize their heritage of ‘one person one vote.’ Politics in Pennsylvania violates this core principle. And these common-sense reforms would go a long way toward restoring citizens’ voice in our democracy. They should not be controversial.”

The emphasis on the fundamentals of democratic government fits a concern that was expressed by several writers after the election: would a Trump administration backed by large Republican majorities in Congress become repressive, dictatorial, or even totalitarian in character? I read Hannah Arendt’s *Origins of Totalitarianism* in order to better understand how endangered our democracy might be. I was relieved to see that in some ways we are far from resembling the vulnerable societies Arendt described as she looked at the 1920’s and 1930’s in Germany and Russia. Italy, she pointed out, was a dictatorship, but not a totalitarian system.

In one important respect, however, the people of the United States—and indeed of most industrialized nations—are at risk of losing the features that are most protective of political freedom: a sense of belonging to a whole and of having the capacity to act within it. Arendt wrote:

> Totalitarian government, like all tyrannies, certainly could not exist without destroying the public realm of life, that is, without destroying, by isolating men, their political capacities. But totalitarian domination as a form of government is new in that it is not content with this isolation and destroys private life as well. It bases itself on loneliness, on the experience of not belonging to the world at all, which is among the most radical and desperate experiences of man.

> Loneliness, the common ground for terror, the essence of totalitarian government, and for ideology or logicality, the preparation of its executioners and victims, is closely connected with uprootedness and superfluousness which have been the curse of modern masses since the beginning of the industrial revolution and have become acute with the rise of imperialism at the end of the last (19th) century and the break-down of political institutions and social traditions in our own time.  

How many articles in late 2016 and early 2017 attributed the Trump victory to the distress of unemployed workers or the fear of being displaced by immigrants? Trump promised relief through overt and subliminal messages, but we know there are no easy solutions.

Arendt highlighted another tendency that has prompted many opinion pieces: the confusion between fact and fiction, news and fake news, that may have contributed to the election results and continues to be a concern.

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The effectiveness of this kind of propaganda demonstrates one of the chief characteristics of modern masses. They do not believe in anything visible, in the reality of their own experience; they do not trust their eyes and ears but only their imaginations, which may be caught by anything that is at once universal and consistent in itself. What convinces masses are not facts, and not even invented facts, but only the consistency of the system of which they are presumably part. Repetition, somewhat overrated in importance because of the common belief in the masses’ inferior capacity to grasp and remember, is important only because it convinces them of consistency in time.  

Hillary Clinton as the devil incarnate, a murderer, for example, is a belief inconsistent with real experience but not with imagination when tied to a stream of repetitions consistent with the flowing stream of assertions. Rupert Murdoch’s media empire, including Fox News, bears a large responsibility for making unfounded assertions so accessible. Jeffrey Sachs, Director of the Earth Institute from 2002 to 2016, wrote, “The Murdoch name, carried by James and the grandchildren, will live on in global infamy for having used corporate propaganda to disguise the truth from the public until too late.” Sachs was thinking of climate change in that reference, but the charge applies across all political issues.

As a result of the election and my efforts to understand the Trump phenomenon, in my political activism I’ve come to focus on the practicalities of democratic government as much as the enormous problem of climate change. Prior to November 2016 I was trying to persuade legislators and the public to take action on the climate, because failing to address greenhouse gas accumulation in the atmosphere poses the greatest threat to the greatest number of people as well as to the system of life on Earth. Post-election, however, I’m spending at least an equal amount of time to restore or strengthen democratic practices. It seems to me we have the climate issue because we have the governing issue: we have leaders unable to take in facts because we have an electorate that is not in fact engaged in a search for ‘truth.’ In this post-industrial transitional period filled with difficulties all but impossible to solve because of incomplete, contradictory, and changing requirements—“wicked problems,” we will more than ever need ways for people who do embrace reality to intervene on behalf of the entirety. More than ever we need to protect the democratic experiment so that we can build structures and attitudes to help humans to survive as well as possible the era James Howard Kunstler called “the long emergency.” As Joanna Macy said in an interview, “I'm doing this work so that when things fall apart, we will not turn on each other.”

“Make American Great Again” is a phrase that is not adequate to describe this vision. I want to make America more democratic, for only with the chance for people to be represented more fairly in the future than in the past will our country fulfil the promise of greatness that was visible at our beginnings. As the words were used during this past political season, it seems that

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3 Ibid., 351.
for too many Americans “great” has come to mean “powerful and prosperous.” To them it means to be forceful, intimidating, rolling in money, an America with wealth and clout . . . like Donald Trump. But a nine-year-old part of me believes, “It isn’t great if it isn’t good, and it isn’t good if it isn’t fair.”

The patriotic values that moved me as a child to a large degree came from songs, documents, and poetry (however gender-biased they may have been):

“We hold these truths to be self-evident, that all Men are created equal, that they are endowed by their Creator with certain unalienable Rights, that among these are Life, Liberty, and the Pursuit of Happiness.”

“...crown thy good with brotherhood”

“Keep, ancient lands, your storied pomp!” cries she With silent lips. “Give me your tired, your poor, Your huddled masses yearning to breathe free, The wretched refuse of your teeming shore. Send these, the homeless, tempest-tossed to me, I lift my lamp beside the golden door!”

To some degree I feel silly voicing what may sound like platitudes, but we have much to revere. At this point in the story of American democracy we still have structures through which we can work toward the needed changes. We do have political power. We help to make policy when we select what we see as the most benign of many policy choices and advocate for these at any level of government, with any degree of success. And when we are actively engaged in that effort as part of a broad and determined coalition, none of us will be isolated or should feel lonely, and I think we can believe our country is not headed for totalitarianism. We are America’s insurance against that outcome. We are protecting the democracy for everyone, including those who aren’t aware, those who don’t care, and those who are too isolated, lonely, trampled down, or bewildered to speak in their own interests.

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4 From The Declaration of Independence, attributed to Thomas Jefferson

5 From song “America the Beautiful” by Katharine Lee Bates

6 From poem “The New Colossus” by Emma Lazarus
WHAT TO DO ABOUT TRUMP
By Herman Greene

Sustainability involves both nature and human societies. In our view there are three criteria for sustainability:

(1) The human community must live within Earth’s carrying capacity. According to the Ecological Footprint Network we humans are now at 150% of the carrying capacity of Earth and rising;
(2) Within the human community there must be justice, equity, respect, and inclusion for all humans and human communities. This requires sufficiency for all humans, and one part of the human community (both inside and outside developed countries) cannot unduly burden Earth.
(3) Biodiversity must be protected and Earth’s life systems must be healthy.

Thomas Berry was always very clear that Earth comes first. He expressed this, among other ways, by saying “Earth is primary, humans are derivative.” A corollary of this was his statement that “without the Earth, the human is an abstraction.” And here’s another:

There is no way we can attend to the poor, the marginalized, the oppressed, unless we attend at the same time to the “poor” of the endangered species, strip-mined hills, eroded crop lands, polluted rivers, acidified lakes, and gutted mountains. It is all of a piece, justice for the poor people, justice for the Earth. If we divorce people from Earth and pretend we are working for the poor while ignoring what is happening to their life support systems, i.e., oceans, air, soil, plant and animal species, we are duping ourselves and them.

One way we of CES have said this is, “The ecological crisis is the primary limiting factor in human development.”

Donald Trump doesn’t believe any of this. On May 21, 2017, at an “Arab-Islamic-American Summit” in Riyadh, Trump, with family in tow, strode onto the world stage like an American Caesar. He was the guest of Saudi Arabia “arguably the world’s last absolute monarchy” ruled by the King and dominated by the House of Saud, the royal family.¹ During the visit, Ivanka Trump gave a message to a group of Saudi women of female empowerment through entrepreneurship without speaking to the almost insuperable difficulties posed for women entrepreneurs due to Saudi Arabia being “the world’s most repressive society for women, a

place where women are not allowed to drive, must cover themselves from head to toe in public and require permission from a ‘male guardian’ to travel outside their homes.”

For Trump being “transactional” is the norm. This means recognizing where “real” interests—money and security—are involved and making deals around them with disregard for all else. All else is national, sovereign, protected. As if Trump would have had standards to offer, Trump declared to the gathered leaders, “We are not here to lecture—we are not here to tell other people how to live, what to do, who to be, or how to worship.”

Trump proceeded to give a completely industrialized, militarized, and sectarian vision of the future. Defeat of terrorism was the goal. This contest was one of good vs. evil. The enemy strangely was not ISIS, but Iran. Victory would lead to prosperity. These leaders in Riyadh, so remote from their own people, and this leader from the United States, so remote from his unwitting base . . . would this lead to either peace or prosperity? Nowhere were the underlying

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ecological or social causes of terrorism or of the wider sufferings and unrest in the region addressed.⁴

Meanwhile back in the United States the Washington Post’s headline read, “Food stamps, Medicaid on chopping block in Trump’s budget,”⁵ and already we had heard of a proposed 31% cut in Environmental Protection Agency funding.⁶ Trump and his cohorts exemplify what Saskia Sassen wrote about in Expulsions: Brutality and Complexity in the Global Economy⁷ . . . for the dispossessed, displaced, disempowered, poor, and non-human: expulsion.

But what to do?

What sustains this man in power? The American political system through an election gave him presidential powers. It is a system with fairly strong checks and balances except at the presidential level. The president is exempt from so many rules and there is really only one real remedy for errant presidential conduct while in office, and that is impeachment. Still the American president does not have unfettered power and he must have some allies.

⁴ For additional commentary on the speech, see Juan Cole’s article cited above.


There are no natural allies for Donald Trump, other than those who came to admire him as a result of his reality TV show. Otherwise trampling standards, norms and conventions, uninvited he barged onto the scene. He first defeated 16 Republican candidates. And then he defeated a Democratic candidate who was unable to overcome the burdens of Bill Clinton’s history, Obama’s history, her own foibles and history, the Russian hacking, the face news, and the Comey initiatives, and who could not match the intensity generated by the entertainment and effrontery of the populist Donald J. Trump.

Trump promised to stick it to the liberal elite, and to do it with patriotism and price. He would make American great again. His base now revels in his unorthodoxy and celebrates his apparent economic achievements, delivery on the Supreme Court, and his displays of American military strength. They regard the “deep state” and Democrats as out to get him and obstruct his program of reform. Abandoning historic conservative values, standards, and policy positions, they have no need to reconcile Trump’s conduct with these historic norms.

Republican and business elites make an uneasy alliance with one who is not of them. The super wealthy jump on his ship of state, not to promote economic nationalism as Trump promised to do, but to see that policy is conducted as they would have it. Conservative politicians, hoping that the government and Trump will not implode before they are done, pursue their feverish dreams of tax cuts for the wealthy, the end of the welfare state, and the rise of the impossibly contradictory libertarian-traditionalist-security state.

The latest Gallup poll shows that 38% of Americans regard Trump’s job performance favorably and 56% unfavorably.\footnote{“President Trump Job Approval,” RealClear Politics,\newline\url{http://www.realclearpolitics.com/epolls/other/president_trump_job_approval-6179.html} (accessed May 22, 2017).} It does not take majority approval to govern, however. The uneasy alliances above are enough when bolstered with majorities in both houses of Congress, majorities in most state legislatures and a majority of governorships, a potentially sympathetic supreme court, gerrymandering, money in politics, and voter suppression. Further, the electorate faced with a bewilderingly complex political process tends to be apathetic, unanalytical, and poorly informed.

The opposition on the left sees the government as the answer to everything also with little analysis. Too often for them, concern over global warming does not mean taking serious steps to stop it but rather insistence that everyone must believe in global warming, making that an end in itself. Too often this is also true of liberal concerns about poverty, racism, and other injustices: “The government should take care of these things! Are you, like me, against these things?!”

Trump is frighteningly situated to bring about social and ecological catastrophe. If this occurs it will be for this that he is known, not for making America great again. He is also frighteningly situated to stymy the real reforms that are needed. The clock is ticking on the ecological and
social challenges of our time, challenges that exceed in their complexity and breadth those ever presented. There is no time for delay and yet with Trump we get delay and worse.

The best thing to do about Trump is for his political allies to wake up and realize that this man is a danger to society and should be removed from office as quickly as possible. This would be good for the country and probably would be best for the Republican Party in the long run. Daily the news gets worse for Trump and those in his circle and those who assisted his campaign. Some on the left think elevating Pence to president would only make matters worse because Pence would be a more effective leader and spokesman for conservative causes. Also, they believe keeping Trump around would increase the likelihood of Democratic victories in 2018. I disagree, because I think Trump is a unique danger and should be removed. With regard to having a more effective spokesman for conservative ideas in Pence, I say fine—let there be a contest of ideas on the merits not on the basis of personalities.

Whether or not Trump is removed, here is what we must do:

1. **We must keep getting truth out to the best of our ability and this includes accessing and supporting reliable sources of news and analysis.**

2. **While both political parties are imperfect and 40% of Americans regard themselves as independents, we must accept political compromise and, for the most part, advance our political causes through the Democratic Party and work to advance the representatives of that party. The Green party and the disaffected left need to see themselves as Green Democrats and left or radical Democrats. The current direction in American politics will likely not change until the positions of the two primary parties are reversed.**

3. **We need people to engage in politics as candidates, supporters, advocates and as members of citizen boards. There are a wide array of offices from US president to local school board member. Each level is important.**

4. **For those who work through the Republican Party, recover sound conservative principles and norms and be a strong center-right party. Be an advocate for social justice and prove that Republicans can responsibly deal with the critical issues of our time.**

5. **Study the processes of governance, hold conferences and colloquies on reform of these process, and promote long-term structural reforms, including in our lifetimes a Second US Constitutional Convention.**

6. **Move the focus of politics from individual rights to communal rights, from private property to the global commons, from private profit to common wealth, and from economics and security to ecology, culture, and human development.**

7. **Resist—engage in protest, write letters, advocate, listen to and help the disempowered and disenfranchised.**

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Be a pioneer, make changes wherever you can. All changes are cumulative.

Take on the big issues of how we are going to live within planetary boundaries, provide sufficiency for all, and protect nature. Do not settle.

Have faith in the future and in your fellows. Build community.

Remember the importance of government. David Orr wisely wrote:

Only governments have the power to set the rules for the economy, enforce the law, levy taxes, ensure the fair distribution of income, protect the poor and future generations, cooperate with other nations, negotiate treaties, defend the public interest, and protect the rights of posterity. Errant governments can wage unnecessary wars, squander the national treasure and reputation, make disastrous environmental choices, and deregulate banks and financial institutions, with catastrophic results. In other words, we will rise or fall by what governments do or fail to do. The long emergency ahead will be the ultimate challenge to our political creativity, acumen, skill, wisdom and foresight.10

These things and more, we must do.

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