

Inner Transition: Where the Given Meets the Gospel

David R. Weiss – September 7, 2019

The Gospel in Transition #40 – **Subscribe at www.davidrweiss.com**

I have to be honest. There are days when the latest climate news hits hard. Actually, there are weeks and months like that for me. The science is not encouraging. The math is simply unforgiving. And the physics has no empathy.

Consider: the lag time between releasing CO₂ (and other greenhouse gasses) into the atmosphere and when we actually experience the impact of those raised CO₂ levels is 30-40 years. That means we are just *TODAY* experiencing a climate shaped by the 350ppm (parts per million) of CO₂ in the atmosphere 30-40 years ago. And (maybe you've noticed) it's NOT pretty.

And because *current* CO₂ levels are now *well above 400ppm*, the next 30-40 years are pretty much locked in as a “pre-paid” immersive learning experience on the impact that raising CO₂ from 350-400ppm will have on our world. We like to think we can (somehow) swerve back from the edge of disaster just in the nick of time. But the choices we make (or fail to make) today are not so much about the next 30-40 years but what comes after that.

In other words, my own (grown) children's climate future is NOT at the center of discussion. *Their* climate future was settled over the past three decades. We don't know exactly what it's going to look like (because if/when the positive feedback loops kick in things will get *precipitously* worse), but wildfires, hurricanes, flooding, droughts, sea level rise, global food insecurity and political insecurity all seem certain to increase—accompanied by an unimaginable number of climate refugees.

That's *the given*. Our choices today will not alter that. But they do matter in other ways. They will determine whether we manage to lessen the worst impacts of global heating, which are still 40+ years ahead of us. And whether we endure the coming crisis—*the next 30-40 years a reeling climate that's already bought and paid for*—with integrity and compassion. But there's a catch—and it inextricably links these two sets of choices. Even if we make all the right choices for that four-decades-off future we can barely imagine (but which will become our grandchildren's and great-grandchildren's daily life), even if we act with supreme wisdom and restraint now, *things will continue to get worse*. For many of us, for the rest of our lives. *Even if we do the right things. All the time.*

Which means, both for our own well-being and for the sake of persons not yet conceived, we must resolve to cultivate compassion and nurture integrity *without expecting it to save us*. On the one hand, the emergence of such deep character is the only thing that *will* save us—preserve our humanity. But it will not have any significant effect on the increasingly hostile climate conditions most of us fifty-and-older will face for the rest of our lives. And the sooner we acknowledge that, the more focused we can be on the character we need to survive.

In a sense, this is what the Transition Movement has always been about: recognizing the extent to which our present lives are hitched to unsustainable—indeed deadly—practices, and choosing to transition away from them and toward truly sustainable practices before we are caught off guard, and as a matter of communal choice. And—with a measure of good spirit; because these deadly practices have not only been eroding the planet's ecosystems, they've also been steadily eroding our humanity, so making different (albeit unfamiliar) choices has the capacity to re-humanize us.

At the macro level the window for orderly transition away from a fossil-fueled societal collapse is fast closing. (Indeed, a growing number of well-informed folks say the window has not only closed, it's been padlocked shut. ☹) And while Trump is a convenient scapegoat for this—his administration has gone out its way to damn future generations to a living hell—nonetheless our dilemma reflects decades of inaction by politicians of all stripes. Generations of fixation on profit/wealth/money/stuff as the measure of meaning in our life. And the collected energy of corporations, the wealthy, and those bought off or tricked into doing their bidding. There is plenty of blame to go around; our current

president is only the latest, loudest, most brutish and clownish manifestation of a cultural infatuation with an ecocidal way of life.

In the face of this, the Transition Movement—without dismissing the value of street protest or political action—opts to place its energy in building fresh patterns of community. Because only by *remaking our notion of humanity itself* will we find patterns for living that can sustain us through the coming decades and (perhaps) sow the seeds of a fundamentally more ecological form of human life in the future. For all its practical focus on transportation, food, energy use, and the like, this is ultimately “religious” work—though by no means necessarily tied to a religious tradition. But beneath all of this it is about fashioning ... inhabiting ... a different *cosmology*, one that sets us more accurately and more compassionately within the web of creation. The immediate payoff—against the backdrop of the climate emergency—is that in the process we will recover the humanity that we barely remember was once ours.

This cosmology-crafting is at the heart of Inner Transition: tending to the neural paths and emotions that comprise the infrastructure of personal choice, shared community, and culture. It sometimes happens implicitly, the spontaneous result of pursuing outward habits that happen to produce corresponding inward life-giving rewards as well. And sometimes it transpires as the result of careful intent. Inner Transition is the place where—most directly—faith communities contribute to the character-shift, the cosmological revolution necessary in this moment.

The practices evident in how we hold and share power in faith communities (even in how we conduct our committee meetings) can easily echo the top-down power dynamics that are killing our planet. But they can also experiment powerfully with ways to embrace shared power, ways that echo, adapt, and amplify the model of Jesus. The shape of our worship, from the language, songs, and visual imagery we choose to the way we embody our rituals, these things, too, are cosmology-craft at work. Our willingness to endure (welcome) truth-telling in our midst and our commitment to fellowship that pushes past polite company into authentic relationship frame the crucible in which a new cosmology might be born.

We have largely *and tragically* imagined the Gospel—that declaration of God’s unconditional and unnerving love for every bit of creation—as a message-with-the-means to carry us from this world to the next. I am here to tell you that the only Gospel that is truly good news—that bears the message-as-means of God’s awe-full love—is the one that can carry us to the heart of *this world*. And inspire us to make it once again our home.¹¹⁸

And it *is* our home. No less so on account of the wounds we’ve inflicted on it. No less so on account of the decades of *wounding* that we’ve already loaded in the atmosphere. This IS our home. We die, endure, or heal right here. But our tradition is clear, God loves *this* world. Embracing that truth with all of our audacious creativity, courageous compassion, and practical wisdom—in every corner of our personal and communal lives is what Inner Transition looks like. It is Gospel wrapped in all manner of flesh. As it is always is.

PS: I’ve set up a Patreon site to help fund my work in this area. I hope you’ll invest in my thinking and writing. You can learn more about how to support me here: www.patreon.com/fullfrontalfait

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¹¹⁸ I believe many—most!—faith traditions *can* support a cosmology in which we are fully wed to this world. My work is within the Christian tradition because this is the tradition I’m writing out of—and into.

Global Youth Climate Strike: Not Nearly Enough—and Yet

David R. Weiss – September 23, 2019

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I attended the Minnesota Strikes Back rally on Friday, our little part in the Global Youth Climate Strike that encircled the planet that day. I was encouraged to see so many youth at the gathering—and so many parents and grandparents, too. There is untold strength in becoming a multigenerational movement. It's important for youth to realize they aren't alone in their quest for a livable future. And equally important for adults of all ages to realize the swell of energy—anguish, anger, and grit—rising in youth today.

We were 5000-plus at the State Capitol and among *millions* across the globe—literally: in over 150 countries and on all continents, including Antarctica, where folks at a research station bundled up and went outside to join in the strikes. Frankly, our numbers in the Twin Cities were paltry. This is, after all, *our lives* we're talking about. We will need so many more people to show up—and in ways much more committed than an afternoon strike if we intend to preserve some recognizable semblance of a future for our children and grandchildren and beyond. Strikes—even with millions in the streets—will not be nearly enough. And yet when I see people dismiss the strikes as so much silliness I'm angry. Silliness my ass.

The Guardian reported yesterday, per a *United in Science* report released in conjunction with the UN Climate Summit going on today, that climate change is outpacing past predictions and we'll need to at least triple our current efforts on cutting emissions to even have a chance at holding global heating to 2°C; and quintuple them to actually hit the (much!) safer target of 1.5°C.¹¹⁹ If we merely continue slowing emissions at the pace we've managed to achieve since the 2015 Paris Agreement, we'll reach a temperature rise of 2.9-3.4°C by the end of this century. That's the path we're on today. I have grandchildren who will live to see 2100. So how do I say this politely? THERE IS NO WAY TO SAY THIS POLITELY: *If we hit 3°C in global heating, we'll have a planet that will make Mad Max look like a Disney amusement ride.*¹²⁰

Meanwhile President Trump planned to skip the UN Climate Summit, instead scheduling himself at a meeting on religious freedom—which, despite real concerns over religious persecution in some places, in its most common and current toxic expression, is freedom to assert bigotry and deny basic human rights to women, migrants, and others as an expression of religious conviction. I note this not as an editorial snipe at Trump but because the rise in religiously-based xenophobia, other-ing, and simple hatred is intrinsically bound up with indifference to the coming climate catastrophe. They're flip sides of the same damn coin.

Minimally, school strikes can raise awareness. They can light a fire in the imagination of youth—and the rest of us. Clearly not everyone. But maybe enough of us. Perhaps they already have. It was only in May 2018 that 15 year-old Greta Thunberg—entirely unknown at the time—won an essay contest on climate change sponsored by a Swedish newspaper. Three months later, in August 2018, propelled by her own alarm and conviction, she began her solitary Friday school strikes outside the Parliament Building in Sweden. And thirteen months later the entire world (well, close to four million of us) joined her. As for Greta herself, if you heard any of her remarks to the UN Summit today (9/23/2019),¹²¹ you heard the voice of a child prophet. (And she is neither the first,¹²² nor the only

¹¹⁹ www.theguardian.com/environment/2019/sep/23/countries-must-triple-climate-emissions-targets-to-limit-global-heating-to-2c

¹²⁰ www.grist.org/climate-change/2011-12-05-the-brutal-logic-of-climate-change

¹²¹ www.theguardian.com/environment/video/2019/sep/23/greta-thunberg-to-world-leaders-how-dare-you-you-have-stolen-my-dreams-and-my-childhood-video

one. Every speaker except one at the Twin Cities Climate Rally was twenty years old or younger—most were in their teens. All were eloquent, passionate, and inspiring.)

Is one Global Youth Climate Strike—or even a dozen—enough? Not nearly. But it reminds us that ordinary citizens—both youth and adults—*are* the sleeping giant in this picture. Like a test of the emergency broadcast system, running a global climate strike and turning out four million shows that *this much* is possible. And *this much* is already pretty extraordinary.

We'll need to move to general strikes—entire cities being shutdown by work stoppages carried out by rank and file citizens across all fields. And to nonviolent civil disobedience on a scale never before seen—because we are facing a threat on a scale never before seen. Hard to imagine? Yeah, but so is a planet so over-heated as to become a threat to human life. And as *that threat* becomes more imaginable—if science education doesn't see to that, then physics, chemistry, and biology operating in the real world will—the anticipatory anguish-anger that drove millions into the streets on Friday will drive them (and yet more!) to press further. General strikes and nonviolent resistance will become civic virtues of the highest degree.

Will even that be enough to turn the tide? Who can say? But I am willing to lend my feet, my body, and my words to this cause, believing it is yet possible to cut through to the hearts of enough politicians and other leaders to rouse them to deeds that are more than just window-dressing for an apocalypse.

Still, Greta's concluding words in addressing the UN Climate Summit today are prescient: "You are failing us. But the young people are starting to understand your betrayal. The eyes of all future generations are upon you. And if you choose to fail us I say we will never forgive you. We will not let you get away with this. Right here, right now is where we draw the line. The world is waking up. And change is coming, whether you like it or not."¹²³

So, to those who prefer to deride the striking youth from the sidelines, I have a suggestion. Join them—*or buy plywood for your windows*. If strikes and other nonviolent resistance do not succeed, I guarantee you, rocks and worse will be next. And they will be justified. Many of our youth now recognize—as too many of us do not yet—that they are literally fighting for their lives against forces that are willing to use them as tragic extras in a neoliberal economic snuff film.

No doubt this is complicated stuff. Not so much the climate science, which is alarmingly clear. But the politics and culture, the superficial motives and deeper addictions, the technology and the ethics, and the need to imagine both unimaginable horror ... and, just as much so, unimaginable hope. We will need more than just strikes and nonviolent resistance—but we will surely not prevail with less than them.

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¹²² www.irishtimes.com/opinion/twenty-five-years-before-greta-there-was-severn-and-we-ignored-her-1.4022656

¹²³ www.theguardian.com/commentisfree/2019/sep/23/world-leaders-generation-climate-breakdown-greta-thunberg

Chasing the Wind: A Moment for Immodest Hope

David R. Weiss – September 28, 2019

The Gospel in Transition #42 – **Subscribe at www.davidrweiss.com**

Our hopes were so modest. They shouldn't have been. We don't have time for modest hope any more. But it wasn't until I saw the brightly colored streamers chasing the wind in the afternoon breeze that I realized something special was in the air.

Last winter Tracy (co-conspirator with me in climate work at our church) and I began asking how we might bring more folks at our church into active conversation around climate issues. We set our sights on two modest ideas. Host a round of informal conversations around Transition Movement ideas and then aim to do a book study on a climate-related theme over the summer.

In May seven of us met for three hour-long sessions reading, reflecting, and discussing ideas central to the Transition Town Movement. We used a “reflection circle” group process to shape conversation to include everyone and guide us to the depths of our reactions. This process intentionally paces and restrains initial sharing. We went around the circle twice. The first time each person simply shared a single idea or sentence—in their own words or directly from the reading. Nothing more. The second time each person could add 2-3 sentences to their own initial sharing or to someone else's opening comment. Again, only these few sentences, around the whole circle, with no “cross-talk” out of turn.

The wisdom in this process is that it creates space for quieter voices, softens the enthusiasm of louder voices, prioritizes listening over speaking, and invites the most compelling ideas forward at the start. After these rounds of slow, paced sharing we opened up for broader conversation, now in random order, but still attending to all voices in the room. The conversations were always rich, at times piercingly so. When these three sessions ended we turned attention to the summer book group.

Several from our initial group joined the book study as well; others stepped back due to schedule conflicts; and a few fresh faces stepped forward. There were again seven of us as we set out into *Active Hope* by Joanna Macy and Chris Johnstone.¹²⁴ Although originally slotted for four 55-minute sessions, Tracy and I felt we needed more and longer sessions. On our first evening we proposed six 75-minute sessions as a way to honor the depth of the book, the weight of the topic, and provide time for fuller conversation. Our group unanimously agreed; they were *hungry* for hope. A good first sign.

Active Hope is grounded in Joanna Macy's teaching, “The Work That Reconnects,” developed over her decades of spirit-rooted activism. (Macy grew up Christian and later became Buddhist. Her work hearkens to a Moreness to Reality, a Generous Energy upholding life itself.) Focused on reconnecting ourselves to the web of life, Macy and Johnstone explore how *reconnecting* to ourselves, one another, our sibling creatures, and a near mystical sense of life itself (and doing so across time and space) joins us to an energy that can steady us in tumult and even empower us to live with active hope. They name four “movements” to The Work That Reconnects. We begin by *coming from gratitude*, then move on to *honoring our pain for the world's pain*, *seeing with new eyes*, and finally to *going forth*. Each movement has a peculiar wisdom and gift. Altogether they form a dynamo that generates active hope.

That brief description falls far short of the power of the book—especially when read and processed in community. Which is what we did. Over the course of July and August we made our way through the book—using a modified reflection circle process to guide our conversation. We also utilized many of the exercises offered within the book, which Tracy and I often adapted to our specific context.

Thinking back to our first evening, I doubt any of us fully anticipated the journey ahead. Hungry for hope, yes. But our expectations were so modest, if only because we didn't know each other or the material well enough to set them any higher. Already our second session brought palpable anguish

¹²⁴ Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We're in without Going Crazy* (Novato, CA: New World Library, 2012). While the book offers many insights simply by reading it, its full power is best felt by using it within a group.

into the room—voices broke and eyes teared—as we honored the pain in our souls over the present and future suffering wrought by climate chaos. We hadn't expected to dive *so deep* into vulnerability ... authenticity ... communal anguish. But we did. And the promise of Active Hope held true: the power to move forward comes not by avoiding such anguish, but by embracing it honestly and with others.

By mid-August, as we neared the end of our study, we began to ask, What's next? This question is one aspect of attentive listening in the *going forth* movement: you listen to the world to ask where your rising energy might be called. It was also an expression of our sincere wish to see the active hope growing within our group find an ongoing purpose that might *keep us* moving forward together. Still using our reflective circle process, we considered many ideas about how our group's energy might move outward into our congregation and beyond. We dreamed some big dreams—some of which might indeed come to pass months or even years into the future. But we also entertained one smaller whimsy that seemed ready—*ripe*—for our investment.

When I suggested that we might use our spiritual heritage to offer some form of worship service in solidarity with and as a complement to the Global Youth Climate Strike coming up the following month it sparked interest throughout our group. More than this, *it called forth the multitude of our gifts*. Thus, upon ending our book study on August 21, *in just one month* we pooled imaginations, ideas, energy, and skills to craft an entire service: A Sacred Circle for Our Climate.¹²⁵

There are *a lot* of moving parts to a liturgy—especially when you're creating it from scratch. From imagining the chairs arranged in a circle on the lawn, to symbols for the four elements, to publicity, liturgical actions, music, songs, hospitality, and more. We were a whirlwind of ideas, bouncing off each other and racing off in different directions. Watching the flurry of email activity and the energy in our few meetings, I knew our Sacred Circle had real potential. But our timeframe was so short we never put all the pieces together until the Friday evening of the Sacred Circle itself.

So it wasn't until then that I sensed what might be. The bulletins were printed. Locally grown apples (freshly washed) and locally baked bread (festively laid out in baskets) were set up for hospitality afterwards. Musicians would be warming up soon, and the sound system was on the way. Outside, the chairs were set in a circle, the altar built of nature pieces at the center, and the colorful streamers representing the four elements—blues (water), green-brown (earth), silver-purple (air), and orange-yellow (fire)—chasing the wind in the afternoon's sunlit breeze. We'd read about emergent energy in *Active Hope*—disparate swirls of intention crisscrossing and building up to more than merely the sum of their parts. Here on the lawn, *this was emergent energy in action*. And about to burst.

The service went exceptionally well. Most everything happened when and how it was supposed to. But much more than that, every aspect of the evening came together to create a circle that was sacred not simply in name but in *presence*, such that *active hope moved through our liturgy and through those present*: gratitude, grief, new vision, and fierce resolve.

We began last May, and again in June, and again in August with such modest hope. But we are in a moment in which immodest hope is needed. And now, having found it chasing the wind on a Friday afternoon, I daresay our hopes will reach further from now on. They have to.

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¹²⁵ A shareable version of our service is here: www.davidrweiss.com/2019/09/18/sacred-circle-resource/

The Nobel Conference: An Exercise in Public Science

David R. Weiss – October 9, 2019

The Gospel in Transition #43 – **Subscribe at www.davidrweiss.com**

Last month I attended the Nobel Conference at Gustavus Adolphus College.¹²⁶ Under the theme “Climate Changed: Facing Our Future,” the conference brought together noted speakers representing disciplines at the center of climate science and its impact on our world. It offered “public science” the way I offer “public theology.” On a much grander level, yes; which gives me something to aim for. ☺

Today *every person* is a scientist-of-sorts. No, we don’t all have degrees in science, but our words and choices demonstrate whether we regard scientific inquiry as useful and overall trustworthy in describing the world. Given the stakes of global heating, it’s imperative that we navigate the challenges of the climate crisis with a healthy regard for science and an ability to converse with public science as citizens, neighbors, parents, and members of the planetary community.

The Nobel Conference was a model in how to do that. Over a thousand non-scientists (the public!) gathered to hear the speakers share their perspectives and engage in dialogue with us and with each other. Of the seven presenters, five have been directly involved in UN Intergovernmental Panel on Climate Change (IPCC) reports. Each speaker offered insight into our changed/changing climate and what that means for us and for our future. Together they put physical science, social science, human rights, and (to a lesser extent) the humanities into vibrant and essential conversation. It’s impossible to capture 8+ hours of lecture and panel responses in 1000 words. Still ... hold my beer ...

Amitav Ghosh (Indian novelist/essayist) lamented that public discourse on climate change is shaped almost entirely by “specialists,” while those who most directly experience its effects (refugees and the poor) remain unheard. He also noted the costly environmental impact of the military—even in peacetime—stridently stating we must choose *either* to fund peace and sustainability *or* preparation for war. We cannot do both. (Quite frankly, Earth can only afford the former.) And he called for “thicker” models of a climate-changed future because these changes will play out across already stressed geopolitical fault lines that can be modeled with far less precision. Note to self: it’s also worth asking how our changing climate will shape churches and theologies—and faith—in the future.

Richard Alley (ice core scientist and IPCC author) said the physical science on climate change is now so thorough and so clear that the scientific community is effectively “done.” But other interests still perpetuate a (non)argument over the science, which only delays the crucial turn to policy responses. He’s convinced the IPCC reports offer (potentially) *good news* alongside the cause for alarm. The IPCC reports *can* chart the way to a stronger economy, healthier lives, a more peaceful planet, a cleaner environment, and a more compassionate human community. On the other hand, asked which climate “tipping point” concerns him most, Alley was blunt: *human enmity*. As a scientist, he’s less worried about a tipping point in Earth chemistry than in human character. Note to self: faith communities have a critical role in addressing the character crisis that a changing climate threatens to reveal.

Diana Liverman (social geographer and IPCC author) explored how UN development goals (raising people out of poverty and much more) relate to climate change. Human development can put more stress on ecosystems as standards of living rise, but other aspects *can be green* (notably women’s empowerment and energy technology). Thus, we need to identify *synergies*, where development efforts and climate responses reinforce one another; especially those rare “triple-wins” where the same project supports human development, mitigation of global heating, *and* adaptation to a changed climate. By attending to the details in the margins we *can* reduce human suffering while also responding to climate challenges. *We must*. Note to self: faith communities have a role here, too, in fashioning sustainable appetites, both for those of us already “developed” and those still developing.

¹²⁶ You’ll find background on the conference and each speaker, as well as archived videos of most keynotes, at www.gustavus.edu/events/nobelconference/2019/

Sheila Watt-Cloutier (Inuit and human rights advocate) brought Arctic cold to the global heating podium. Her people's culture is *built on cold*: it's central to health, security, safety, and livelihood. Countering those who say indigenous people must "learn to adapt," she observed that indigenous people around the globe have survived *because of* how adaptable they are. Now, having *adapted* to live sustainably in their environment for generations, globalization's *unsustainability* threatens their cultures and their accumulated deep wisdom of patience and persistence. She added that, like the planet, her people have a history of trauma vis-a-vis Western/white society—traumas that are *interwoven*. Yet the Inuit are eager to offer their voices in shaping a path toward a shared healing that she believes will be grounded in our felt connection to Earth and to one another.

Gabriele Hegerl (climate modeler and IPCC author) echoed some of Watt-Cloutier's themes, noting that many people needing development assistance today, need it because they were *pushed into poverty* in earlier generations. She also said we need to reclaim human feeling as a *complement* to thinking—rather than a distraction to it. She reported (from a front row seat) that many climate negotiations occur "in rooms where there is no heartbeat"; the conversation is all numbers. And this lament came from a woman whose doctorate is in applied mathematics! Recognizing how multi-layered these negotiations will be, her counsel was that we take the greatest care of our political institutions; their structural well-being will be critical to navigating the disagreements that await us.

David Keith (climate technology and IPCC author) focused on solar geo-engineering as a necessary strategy (among many others) in slowing temperature rise. This basically involves spraying fine particles high in the atmosphere to reflect back enough of the sun rays to lessen the rising heat without making an appreciable difference in our sense of daylight. He was clear: the technology is *not* ready today, and even the idea of it as a promising technology may lead some to take the need to cut emissions less seriously—which Keith considers foolhardy. But he believes that in three decades—even with carbon cuts—such technology may well be needed for our safe survival and he'd rather we start working on it now so we're ready. How's that for a sort of gloomy optimism?

David Hulme (human geographer and IPCC staffer) spoke last. After several decades doing climate modeling, he became convinced (about fifteen years ago) that the real "frontline" of climate work was attending to our cultural, moral, and spiritual senses. The rush of numbers obscures the more pressing questions, which are about our very humanity and how we relate to the material world and to one another. He argued the humanities have unique value in this project as they allow us to explore notions of meaning and purpose, humanity and politics in ways that can help us map out a moral ecology. Without discounting the sciences, he felt it was critical that science be driven by humanity.

At four points during the conference all the presenters formed a panel to respond to the talks just given. It was insightful to hear these "brightest minds" bounce appreciatively off one another, even as the concluding panel grew ... fractious. Following Keith's spray-the-skies geo-engineering and Hulme's center-the-humanities approach, it became awkwardly evident how mistrustful science and the humanities *can still be*. How easily we speak past each other when we listen to make *our* point rather than to hear *others'* points. Several IPCC authors added their dismay at the news media's focus on relatively random deadlines in reports (as though Earth operates on calendar time the way we do). By amplifying the IPCC's dire *projections* into apocalyptic *predictions*, we miss that the data only tell one piece of the story. Human values will tell the rest. Note to self: *public theology starts here*.

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Rooftop Solar: The Nuts and Bolts of Choosing Sunshine

David R. Weiss – October 18, 2019

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Sometime soon Margaret and I will—at least metaphorically—flip one of the most significant switches of our lives when our rooftop solar array goes live. Whether we actually get to flip a switch remains to be seen (maybe the Xcel Energy technician or Apadana Solar Tech’s master electrician has to do that). In any case, we’re excited! Let me tell you *how* we got here. (Next post I’ll tell you *why*.)

We’ve been intrigued by solar for years, although, like most people I suppose, we figured it was beyond our reach. Then, over the past 2-3 years, while out on our evening strolls, we’ve seen a small but growing number of rooftop solar installations on homes right in our neighborhood. But we were still intimidated by how little we knew about getting into solar and how modest our income is. (We’re practically a single-income household; I earn only about \$10,000/year, leaving our household income well below six figures. I say this not to embarrass myself or garner pity, but to emphasize, if solar was doable for us, it’s doable for *many* households—presuming your home/roof is a good match for solar.)

Last June we received an email invitation to a residential solar “bulk buy” information session hosted by Minnesota Interfaith Power & Light (MNIPL). That was our doorway into the process. It was a no-pressure event where we learned about the potential benefits to rooftop solar, including the financial incentives, directly from the president of Apadana Solar, the firm chosen by MNIPL.¹²⁷

The fact that an MNIPL task force (comprised of persons with far more solar savvy than us) vetted several firms and chose Apadana was crucial in helping us explore solar with confidence. Among MNIPL’s reasons: Apadana is minority-owned, employs a diverse workforce, has a strong reputation from past projects—and was eager to collaborate in creating a residential solar program accessible to people with a range of incomes. MNIPL hosts info sessions to recruit buyers as a group. Apadana can then buy materials for a bundled set of homeowners at one time, passing along that bulk savings to us. We were in the first group of bulk buyers—in fact, ours was the very first solar installation completed as part of this program. We haven’t turned it on yet, but so far the process has been a breeze.

The average home solar system costs about \$20,000. Our total cost was \$28,650, but that’s because our roof is larger than average with reasonably good sun exposure on most of it,¹²⁸ allowing for a 26-panel array—enough (just shy of 10kW/year) to theoretically offset our *entire* electricity usage. We could NOT afford \$28,600. *But we didn’t have to.* A federal tax rebate will pay back 30% (the rebate decreases to 26% next year), so next spring we’ll get \$8600 back at tax time. Also, because we’re tied into Xcel’s grid, they pay us a “Solar Rewards” premium—about \$625/year (based on our energy production at 7¢/watt) for ten years; this allows them to claim our array as part of their “distributed grid” in meeting their renewable energy goals. That offsets another \$6250 over the next ten years.

The remaining \$13,800 is our actual cost—but because the solar array will effectively cancel our electricity bill, which is projected to run about \$13,700 over the next ten years, the system will be paid for in ten years’ time with *virtually no outlay of money from us*. Yes, we’ll incur interest on the loan, but even that is held down by a special solar home loan program available through a couple Minnesota credit unions (www.cu-green.org/#solar-financing). After that, the solar array will provide “pure” energy savings to us or the future homeowners: over \$40,000 of *net gain* during the last 20 years of its 30-year life. And, while it obviously adds value to our house, that added value is *excluded* from property tax calculations. All in all a very good deal—even though this wasn’t our primary motivation.

Back to the process. We were encouraged to bring several months of utility bills to the info session. Between those bills and a special sun-exposure map view of our home, Apadana was able to compare

¹²⁷ MNIPL: www.mnipl.org/bulkbuy; Apadana: www.apadanasolartech.com. There are other local solar installers; they might be great, too. I can just say that Apadana was communicative, professional, and friendly at every step.

¹²⁸ This map (www.solar.maps.umn.edu/app) shows your rooftop sun, though the results can vary quite a bit depending on exactly where you place the cursor. Apadana uses something like this but with more precision.

our annual electricity use to our roof size/layout to determine if there was enough flat rectangular space (solar panels come in non-bendable 3'x6' rectangles) with good sun exposure so the panels could generate sufficient electricity to make it a worthwhile investment. It looked good, so they provided us with an initial proposal in early July—to be followed by a site visit if we were interested. We were!

Two weeks later two Apadana workers came to check our home's current wiring, take some exact measurements, and get a firsthand view of the roof. The wiring checked out, but a couple quirks in our roof lines required a few adjustments to the proposal. By the end of July we received our final proposal and sent in our first \$500 to secure a spot in the bulk buy. Now we were ready to seek financing. In early August we applied for a Home Solar Loan through Hiway Federal Credit Union. The loan process moved slower than anything else—its pace dictated by a required title search and appraisal. We were finally able to close on our loan in early September. With the loan money in hand, we sent in our 30% down payment and were promptly scheduled (much sooner than we expected!): September 23-26.

The installation went very smoothly.¹²⁹ Scaffolding went up on Monday afternoon. On Tuesday all the supplies were delivered and they fastened the rails—the frames that hold the panels—to the roof. On Wednesday and Thursday they affixed the panels to the rails and cleaned everything up. Just like that. They updated our main electric meter housing and added a couple extra boxes alongside it for the solar connections. Before the crew left on Thursday I got to watch the several-second test. They flipped on the system; the sun was shining brightly; and I watched as the slowly rotating disk inside our electric meter snapped to a stop and then started positively *whirring* in reverse—sending excess energy back to the transformer on the pole in the alley where it would ricochet right back out to a neighbor's home. Then they switched it off. Next step: city inspection.

Saint Paul has several inspectors who reflect a degree of personal discretion in their inspection expectations ... which keeps life “interesting” for Apadana's master electrician. A recent meeting among the inspectors promised to get them all on the same page; still a slightly different page than Minneapolis inspectors, but at least one standard for all of Saint Paul. Except, not quite. At our inspection, last Wednesday (October 16), the inspector balked over a “missing” pair of decals on two of the utility boxes. Not required on the other side of the river. Not discussed in the recent inspectors' meeting, but deemed essential by this particular inspector before he'd sign off on the project. Oh well.

As soon as we get those decals put on, Xcel Energy will schedule a time to come out and install the photovoltaic meter next to our usage meter—hopefully yet this month! This meter tracks our solar production (used to calculate our Solar Rewards payment). When we use more electricity than we're generating (winter, and nighttime year round) we'll draw it from the alley transformer (and be billed by Xcel). But when we generate *more* than we use, the excess goes *back* to the alley transformer—and out to a neighbor's home. Xcel buys that extra from us at the same rate as they charge us when we need it from them. Over the course of the year, it should balance out to something close to zero.

The day the photovoltaic meter is installed, someone (maybe one of us!) will throw a switch ... and we'll be making energy from the sun! Hardly a fix for the climate crisis, but one small step in bringing the practical side of our life into closer alignment with the values of our hearts—and the needs of our planet. Which is where I'll begin next time.

PS: I've set up a Patreon site to help fund my work in this area. I hope you'll invest in my thinking and writing. You can learn more about how to support me here: www.patreon.com/fullfrontalfait

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¹²⁹ Find some photos of our installation here: <https://tinyurl.com/solarpixs>

Choosing Sunshine: The Heart of the Matter

David R. Weiss – October 21, 2019

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For Margaret and me, putting in rooftop solar was never about financial incentives.¹³⁰ It was simply one more step in bringing the day-to-day details of our life into closer alignment with the convictions of our faith, the values of our hearts, and the needs of our planet.

Although the intricacies of our personal faith may differ in details, we share the deep conviction that we are *at home on Earth*. That the world—indeed the entire cosmos—is profoundly interwoven in ways that hold us, and all that is, in community. This awareness has percolated upward in each of our lives by varied paths at varied paces; these days it is seamlessly part of the faith we each hold about the Mystery that dwells at the heart of all that is.

That Mystery, however named or understood, is the energy behind creation, animating it as it unfolds in wonderful diversity, terrifying upheaval, and awe-inspiring beauty. We honor that Mystery when we acknowledge that nature—from mountain ranges to microbes, from whole species to specific creatures—bears the imprint of the Holy no less than we do. When the Genesis creation tale tells us that “God saw all that God had made, and behold it was very good,” (Gen. 1:31) we say, Yes! And we affirm creation as a very good place to call home.

We see in Jesus—and in many other holy teachers, as well—an embodied announcement that God’s goodness runs far deeper than we can imagine ... embracing *all* of us. *And*—that such unconditional goodness invites our company as it runs rampant across creation. Thus, however imperfectly, we seek to echo the goodness of God in how we live our lives, from the tenderness of our love for one another, to the love we hold for our families, to the hospitality we offer to those we encounter in the world, to the respect and reverence we cultivate for the Earth community. That new solar array on our roof? It’s simply, truly, one more echo of the goodness of God, that we offer to the world.

Indeed, although the words “solar panel” did not appear in our marriage ceremony, they were resting right between the lines. We shaped our service around “seven sacred stones”—the core values that had ripened in each of our lives independently before we pledged our love to one another at forty-one. We set these “sacred stones” at the center of our wedding ... at the center of our marriage ... at the center of our shared life. Among the seven¹³¹ were these three (emphasis added here):

2. Connections to creation: honoring the earth from our bodies to the dirt. This stone honors the joy we experience at being immersed in creation. It honors our celebration of being embodied persons *and our celebration of the goodness of the earth, both in its wild grandeur and in its more mundane presence in our own backyard.*

3. Cooperative living with one another. This stone honors the simple joy we take in living and working side by side. It marks our commitment to share happily in all that it takes to build and maintain a home together—*and to do so in ways that care for one another and the earth.*

6. Spirituality: turning outward in compassion and justice. This stone honors the outward movement of our spirituality as our care for those around us. It honors the passion with which we seek to practice compassion and justice toward our neighbors, *our companion creatures, and the earth itself.* And it honors the various ways we each do this, together and individually, in our work and in our play.

We basically got married to put up solar panels. ☺

¹³⁰ I discuss those incentives, as well as the other practical steps in our process to install solar, in my last post: www.davidrweiss.com/2019/10/18/rooftop-solar-nuts-and-bolts.

¹³¹ Curious? You’ll find a list of all seven sacred stones here: <https://tohetune.files.wordpress.com/2019/10/seven-golden-stones.pdf>.

If those 26 solar panels manifest the momentum of our earlier lives coming together, they also reflect the loves that have grown since we married in 2001. In particular, the intertwined love for the six children we now share in our blended family and the nine grandchildren who have graced our lives over the past thirteen years. We put up solar for them. None of them live with us any longer, and I rather doubt any of them will want to buy our 100-year-old home (and its many quirks) when we decide to sell. But those panels on our roof are nonetheless a testament to our hope for *their* future.

As our rooftop array comes to life, we hope it piques the curiosity of our grandchildren (and our children) about the near-limitless power of the sun. The sun’s energy reaching Earth is 10,000 times our current usage! That’s not to say we can capture all of it—or that the other far more finite resources on the planet could sustain a humanity using all that energy (learning to live with “enough” is one of the primary vocations for our species). But it does suggest that the pathway toward a better future is soaked in sunshine not fossil fuel.¹³² We’d be overjoyed for them to grow up in a world where residential solar (and other forms of solar) becomes the norm—and is rooted in the reverent awareness that investing in solar is one way we embrace Earth as home.

On a much more sobering (but no less honest or enthusiastic) note, as we reckon with the climate crisis, which *will* get worse—and for a long time—before it gets better (the getting worse is near-certain, the getting better remains a long shot), we want to lessen our reliance on fossil fuels as much as possible. We’re still stuck in a society where practical denial or malignant indifference to climate concerns at the level of public policy/planning still makes solar a “novel” choice. But, as climatologist Michael Mann has said, “It’s not a matter of are we ‘effed’ or not (as though it were a simple binary either/or), it’s a matter of *how* ‘effed,’ and *that* is left for us to determine—and that requires us to become active participants in reducing whatever carbon burn we can.”¹³³

Over its 30-year life our small solar array will provide sunshine-driven electricity to our home, leaving 88 tons of coal where it belongs: underground. That’s hardly enough to save the planet (a phrase so foolishly anthropocentric it reinforces the very problem it tries to address, but you get the point). Not even enough to save our souls. Another hugely problematic phrase—I simply mean that one solar array does *not* secure our personal integrity. From our embrace of creation, to our following in the company of Jesus, to our love for another and for our family, rooftop solar is just one piece in the work of integrity. That’s the project of a lifetime, and Margaret and I are in it the way we’re in our marriage: till death do us part.

With that fierce familial love that says “to hell with the odds” and reaches defiantly from this generation to the next, those panels harnessing today’s sunshine are also our investment in a tumultuous tomorrow, buying our children and grandchildren a future that is a little less ‘effed’: one that perhaps has a little more time for them and the rest of their generation to find their own way home to a planet that’s always been waiting for us. Right here.

PS: I’ve set up a Patreon site to help fund my work in this area. I hope you’ll invest in my thinking and writing. You can learn more about how to support me here: www.patreon.com/fullfrontalfait

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¹³² *Drawdown*, edited by Paul Hawken (New York: Penguin, 2017, pp. 10-11), lists rooftop solar among the most promising alternative technologies to “draw down” our use of carbon-emitting practices and reach a future where we live in relative harmony with nature rather than in opposition to the very planet that is our home.

¹³³ www.tv.org/video/burnout-and-despair-studying-the-climate.