Flushing Peace Down the Toilet: Strategies for the End of the World as We Know It

By Sarah Thompson Nahar Kroc Institute for International Peace Studies 20th Annual Dialogues on Nonviolence, Religion, and Peace

It's the end of the world as we know it, it's the end of the world as we know it, it's the end of the world as we know it, and I feel fine! The popular song created in 1987 by REM has quite a catchy chorus, followed by quick wordy verses of profound nonsense that mirrored the disjuncture of the time...eventually tumbling back to the coherent declaration of the chorus. It's the end of the world as we know it, and I feel fine.

And it does feel like the end of the world. But we feel anything but fine! We here in this room and via the Livestream are drawn to notice and respond to the suffering we sense in the planet, in people, in beings great and small during these times. (gun violence, robotic/automotive displacement of humans, oceanic health indicators noting climatic danger). At times it can feel like "the end of the world as we know it" means annihilation; the destruction of everything we love. In the US' current pre-fascist, pre-war moment, so much harm and oppression divides our communities and our social movements. The compounding systems of extraction are traumatic to people, destroying the planet, and weighing on the spiritual fabric of all communities.

In the face of this we either, like the song says, feel "fine" via coping mechanisms that numb, distract, strike-out or insulate, or, we do not feel fine. Resisting the urge to consume ourselves to sleep we grieve, strategize, organize, and write...participating however we can in movements to slow down the damage. I want to acknowledge the hard work everyone here in this room and watching on the Livestream is doing. I hope that what I say today can encourage you in your thinking and actions on any level to deepen your commitments to nonviolence, religious practice, and peacemaking so that you can act with integrity and power at this time in our collective story.

Wherever Christianity has spread, some have used the book of Revelation to predict that the days they were living were the "last days" and the "end of the world." We *cannot* know for *sure* what the future holds, and I am not here to predict. In fact, I want to reclaim Revelation from how it has been used to make claims about what the end times will be like because the process of making those claims has been harmful. It's influenced dispensationalist believers to not get involved in what is happening in society around them, suggesting they need not care much about the planet because their primary concern is with believing certain things in order to be saved and go to a place "away" from "here."

In its original language is the word Revelation is *Apocalypsis*. This Greek word means to unveil, to expose, and to reveal. Understanding revelation is much less about prediction, and much more about analysis, vision, and inspiration. We here at this time can use some of that type of revelation—Ancient stories and modern data can help us analyze what's going on around us, envision alternatives, and inspire ourselves and others to commit strongly to make the necessary adjustments now to contribute to the possible continuation of complex life forms here, on this planet.

The genre of apocalyptic writing was widespread when John, a wise elder in the religious phenomenon later called Christianity was incarcerated in Patmos prison back around 80 CE. So what was the particular content he wrote in the visionary letter of *Apocalypsis*? And who did he wrote it to? What they were going through?

He wrote to a cluster of small faith-based affinity groups. These groups met regularly to bring radical, inclusive social change to their cultures and societies. They were part of a the second wave of a grassroots movement based on the renewal that Jesus of Nazareth called for, the radical oneness he embodied, the relationships he encouraged, and the revolution of values he demanded. They were meeting in the context of a Roman military and economic occupation of the Mediterranean Sea area; a government focused on crushing resistance and dissent. When John wrote about the end of the world as he knew it, the Romans had just destroyed the central Jewish temple in Jerusalem, scattering the area's inhabitants and changing the dynamics for the fledgling movement. The emergent church leaders from the original crew of Jewish Palestinian-based leadership who had not be assassinated or silenced were still active, but now not as central. The decentralized movement advocating redistribution of wealth, and peace, was flourishing on the underground in many places: in great diversity, and facing great adversity.

It was because of apocalyptic letters *like this one* that these communities under duress could hold to a vision where sparkling rivers flowed clear, horsemen of destruction were overcome, and spirited music reverberated throughout the atmosphere. It inspired them not to only envision what lay beyond their current difficult moment but to understand the historical context and design and practice collective ethics that aligned with this vision. While the legacy of these early church groups—community cultivation, rejection of violence and dominant power, and dream of a world renewed did not become the mainstream expression of Christianity, this movement culture has survived on the margins of the church and society, through till today.

People like MLK picked up on this. Naming the triple evils of the time—racism, militarism, and materialism, he drew on prophetic texts like Revelation and called for an end to practices of domination and oppression. He knew the changes to build a beloved community would end the world **as people with privilege** knew it, but he believed it would be for the better, **much better**. Of course the people with privilege fought hard against him...terrorizing many communities and assassinating him and many others in leadership who said they were willing to give their lives to save the soul of America. 2018 is 50 years since 1968. Those too were apocalyptic times.

I think these are apocalyptic times. Whether Christian or not, we all have access through our shared humanity to the legacy of Jesus and King and many others to help us during **these revelatory times**. Movements here and worldwide are unmasking the nefarious inner-workings of dominant, crushing power. Those who have experienced societal comfort but want to make change are being exposed as opportunists or they are risking their status, sacrificing their privilege to truly act in solidarity with the marginalized. It is abundantly clear that all of us must bring forth what is deepest in our shared humanity to face the threats to life together. If we don't...sigh...

We here know in our bones that we cannot keep up business as usual, the Earth is **breaking down** and **busting out** under the weight of our militarized systems that enshrine endless growth

and protect corporate profit over the lives of masses and other-than-human species with whom we share this fragile planet. Peace Studies students are looking at how the current systems for things are outdated. You all are examining colonial funding structures for NGOs that have created dependency rather than autonomy, you're changing retributive justice systems to the restorative, transitional ones we need, you're challenging exploitative labor practices and exclusive family definitions that don't allow for the spaciousness and support to raise children, you're protesting the impunity with which environmental justice activists are killed. **This is all crucial.** But an area we haven't studied much in is sanitation. Just like in the other areas of study, the current systems are unequipped for the current challenges. If we don't take a look at this in the area of defecatory justice, we can flush peace—now and in the future—down the toilet.

The area of sanitation is where I believe the violence of the interlocking systems of oppression is unseen and routine. You have the lack of adequate facilities for 2.5 billion people on one hand, and on the other, an excess, the practice of urination and defecation in fresh water in the global north. The sanitation crisis is today's apocalypse. Unless you are using a waterless toilet, closed-loop system, or composting-toilet of us participate daily in perpetuating this crisis. Outdated sewage systems are being exposed, and ecological solutions are being revealed, but why isn't there as much conversation about it as other needs on Maslow's lowest rung—food, water, air, etc.?

The reason we don't talk about sanitation is because it's taboo to talk about poop. From little on up we are told not to use "bathroom words" in the formal western public, as it creates discomfort because it's not considered polite. English doesn't even have a neutral word to use to describe the nutrients and leftovers that come out of the body. The word "poo" is childish, "shit" offends people (though the word has noble roots), and "feces" and "excrement" are too scientific for a normal conversation. Our politeness conventions have gotten us stuck in not talking about it, thereby blocking new ideas from being shared in discourse at every level of society where innovation **could** be happening. I believe that our social movements, institutions, organizations, etc. are just like in our bowels, when something is stuck, it is not good. We need to get the flow going to be healthy. So today we're going to **plunge in and just talk about it**. Please bear with me and the range of language I use. (Referring to Dr. Omer's introduction and my work on boycotts and divestments as part of nonviolent direct action movements...well, I am still doing divestment and reinvestment work, but now I'm just referring to what the body is divesting itself of, and how we can reinvest well).

In any case, because just as HIV/AIDS can't be addressed without a frank conversation about sex, so sanitation cannot be addressed with a frank conversation about shit. We have to deal with our crap.

If we deal with it, instead of the end of the world as we know it being mutual annihilation, it is the end of the world as we know the status quo...the end of the patriarchal, cisheteronormative, white supremacist, settler-colonial, Christian hegemonic, monoamorist, US-centric, corporate capitalistic, petrochemical industrial-growth society of death **status quo** and the dawning of a world where all have their basic needs met and we are designing for a holistic existence in the ecosystems around us.

To embrace the personal and collective changes required for this welcomed end, first let's examine what's going on in this status quo.

On the left hand, many worldwide lack sanitation basics. According to reporters on the Millennium Development Goals, one in three people—2. 5 billion—still have no stable sanitation facilities. This means people with no toilet, no bucket, no pit latrine, no port-a-potty, no box. That's 40% of the world without an adequate crapper. The problem here is that poop carries passengers. If left untreated, such as happens with open defecation, diseases will be passed. One of the main implications of this is diarrhea-what in the overdeveloped world is usually considered a nuisance that can happen from bad carry-out food—is actually deadly. Over 2000 children under 5 years old die of diarrhea each day. During the time it takes for us to have this dialogue, 70 young ones will have died. It's the second biggest killer of children worldwide... HIV, malaria, measles, these are super serious but diarrhea kills more than all of them combined. The euphemisms sometimes classify the causes of diarrhea as water-borne illnesses. And many countries that have sanitation issues spend a lot of their money on fresh water supply. Many NGOs focus on water rather than sanitation because the public image of fresh water springing up out of a pipe is more exciting that showing a stoic, dignified toilet. No one will say no to fresh water; it's important, but without adequate sanitation, the fresh water supply will quickly become contaminated by dirty fingers and feet. When human waste is properly channeled and treated, the risk of infecting drinking water sources is significantly reduced. But because people don't want to talk about excrement and urine—its taboo, people feel shame if they don't have a western style toilet, and there is less funding for innovation in this area, sanitation is the most off-track Millenium Development Goal. We're at least 50 years behind on it!

So traveling to the other hand, this is why the flush toilet was a brilliant invention. The readers of the British medical journal voted the toilet as the best medical advance of the last 200 years because of the impact that sanitation systems had on reducing disease and reducing child mortality (choosing it over surgery, the pill, anesthesia). The World Toilet Organization (that's the other WTO) was happy to hear this.

So, on the right hand: Here in the **flushed and plumbed** world you poop and it "goes away." I watched a newly potty-trained child once who had learned to say "bye bye!" to their poo as it whooshed away. But where is away? There is no place called that. Look at any map. Nowhere I've seen is called away. **Somewhere** receives our refuse. But you'd be fooled living here; Global North city & state architecture is designed to facilitate separation from the extreme consequences of our mundane actions by the push of a button, the jiggle of a handle, or the click of a mouse.

But as there is no "away," and as people committed to nonviolence and the diligent study of our interconnectedness, we must care about the place that is away and the people and beings who live there. Though we don't have to go far to find the consequences, **actually**. People here get sick from contaminated drinking water as a result of fecal particles here too, 7 million a year, with 900 dying annually.

A lot of that disease comes from the fact that when it rains hard, our sewage treatment plants are overwhelmed and the poop, industrial waste water, and roadway & field run-off

all go directly untreated into the river. Here in South Bend—and in many cities across the country—there is a combined sewer system.

Normally those lines meet at a wastewater treatment plant, where the sewage is treated and then discharged into a water body. But when sewers meet capacity—like during a major rain event—many systems bypass the treatment plant and dump directly into the environment (called "combined sewer overflow") to avoid sewage backup in residential homes. So, very frankly, rather than make us deal with what we've dumped, systems are designed to push it all downstream. This has led to fish being contaminated, e-coli blooms, and has seriously compromised the health of the St. Joseph River. Again, South Bend is not alone. Elkhart where I'm from has the same system, and the Elkhart River flows into the St. Joe. Most famously this CSO cocktail led to the Cuyahoga River catching fire a while ago and in the 1990s, along the coasts there was so much dumping into the ocean that the sewage was suffocating the sea.

Groups like EmNet, which was born out of research begun by electrical engineers here in Notre Dame, has done creative work. They work by installing a system of sensors and actuators that speak to each other. They monitor capacity of a sewer system to see if potential overflow can be averted. For example, if a rainwater line is reaching capacity, the system can identify other pipes to which runoff can be diverted; the end result is a system that doesn't produce an overflow until it has reached capacity across the board.

EmNet's work since 2010, has helped the city reduce our overflow of excrement, chemicals, and whatever else people put down the drain from nearly 2 billion gallons a year to about 500 million gallons has led to Mayor Pete Buttigieg exclaiming that "we have the smartest sewers in the whole world!" Smart sewers and upgrades are definitely important, and EmNet, now with Xylem is working to reduce the overflow even more and coordinate with new infrastructure for the future. They've expanded to several major cities too. It's an instructive story of repurposing military technology. But these are technological solutions to what I consider a social problem at the root.

The social problem is that we've chosen to create two problems out of one solution (as radical agrarian writer Wendell Berry would say). The solution is returning to natural ecological loops, and the problems are depleting soil each time we eat from it but remove our leftover nutrients from it *and* we are using our most scarce and precious resource to do the dirty work. So currently, **as the temperatures are rising and the whole world is looking for fresh water to drink, we sit here and poop in our fresh water, then use more resources to separate the poop and fresh water.**

The increasing scarcity of clean fresh water has been a driver for conflict and violence. Finding water to make our combined sewer systems work is going to be more difficult. It is already becoming more expensive. In places where the water table is high, continuing systems that work against nature to push it back is counter-productive. Most if not all cities with Combined Sewer Systems across the country are being required by the EPA to enter into "Long Term Control Plans" in which they agree to spend a sizeable chunk of money to take care of the combined sewer overflow issue in their communities. For many cities this is the single largest item on the budget and citizens will be paying for this directly on their water bills well into the future. The current system of going against nature is costing a lot of money! Living in places recently where

schools and community centers are being closed due to **lack of public money**, to know how much we are pouring into a sanitation system that doesn't work and is costing tax payers a lot, when we could put it into above ground community resources, is frustrating.

When water and sanitation basic needs cannot be met, or met adequately this creates grievances that can be mobilized in any population. Politics from local to national is quite contentious now, yet we must talk directly about water and sanitation access, before it's a larger crisis here. Moreover, when water becomes unavailable or polluted, human life comes to an end in that place. Many refugees have left home because there is no water, or access is controlled by coercion. So as people concerned about preventing war and forced human migration, the solution to sanitation issues cannot be to only provide everyone a flush toilet and/or expand a model based on the Global North's underground system that requires a steady volume of water. This would exacerbate already intense situations worldwide.

The United Nations Office for Disaster Risk Reduction (UNISDR) acknowledges that climate change most adversely impacts vulnerable populations, calling out the "protection gap" that leaves those who contribute the least carbon emissions most vulnerable to their negative impacts. The study that Professor Regan worked on also speaks to the protection gap... "populations on the frontline of climate change do not have resources to adequately adapt." Sanitation is another area where those of us in a protected class are having disproportionate adverse impact.

Still the solution is not a matter of making terrible port-o-potties for the masses to handle the fact that there is not sanitation everywhere. A lot of people could suffer as profit-driven knock-offs expand the same system. It's inaccessible and doesn't work for most. It's time for a total reframe everywhere.

(Let's pause for a moment just to digest what I've shared so far let it metabolize with your organism and your thinking).

Molly Winter calls this re-frame "advanced potty training" speaking to the need for daily diligence if we want to adjust habits and our thinking, etc.

One part of the reframe is to look to solutions to the world's most pressing issues—sanitation among them—that come from the margins, as those solutions that are accessible for folks on the margins tend to work for everyone, while solutions that work for the center tend to be inaccessible or unworkable for those on the margins. Ecologically speaking, the most threatened and marginalized human beings will generally be found living in similarly threatened ecosystems. To close the protection gap, we must look to the unprotected, and learn from their leadership on how they restore their <u>environments</u> by transforming dangerous pollutants into valuable resources, to see what we can learn for our environments here. This is also a liberation theology framework. Put in an environmental context, it is liberation ecology.

Haiti is one of the most seriously marginalized countries. As many venerable and oppressed communities Haitians have been living in apocalyptic times for a while. Systematically punished for its successful 1804 Afrocentric rebuttal to enslavement, it is a country of scrappy genius hamstrung by international community, racism, and dramatic internal political struggle and instability. So let's look there.

Since 2006, SOIL (Sustainable Organic Integrated Livelihoods) has operated in urban Haiti. They serve household customers in Cap-Haitien and Port-au-Prince. SOIL uses a locally manufactured container-based sanitation which are collected weekly, and then washed and recirculated after use. SOIL operates its own treatment facility, transforming waste into <u>compost</u> and selling it locally.

SOIL toilets provide people with access to safe, dignified sanitation through container-based sanitation. SOIL provides locally sourced <u>organic cover material</u> (waste from sugar cane and peanut processing) used in place of water for flushing. On their website, they illustrate the poop loop with green doodles: Waste is collected and transported to one of SOIL's waste treatment sites. Waste is transformed into compost through a carefully monitored process that includes thorough lab testing. Finished compost is a valuable resource that nourishes the soil. Plants grown in SOIL's compost help reforest and stabilize Haiti's environment. Plants bear nutritious, organic food for people to eat (and then excrete). The buckets are washed and recirculated after use. Their social business model creates jobs along the way that ensure their impact is truly lasting. From the construction of EkoLakay and EkoMobil toilets, to selling compost, to harvesting more crops, SOIL creates new value chains that are far-reaching and supportive of life's most crucial daily necessities. Their team is 85% Haitian and 15% internationals. And compared to the usual waste treatment systems, SOIL's composting sites emit less greenhouse gases.

I'm excited to visit and learn from them next week, as they've done it! I've also heard of scalable and scaled efforts in Ghana, Uganda, and Peru. We can do it too! If we think of our daily duty as a "health smoothie for tree roots" then we'll find ways to design for re-use and sanitation in ways that do not compromise the health of our neighbors and future generations. And in turn, this can release the pressure on our systems from population growth in water-rich places like the Midwest will increase due to people internally displaced by climate catastrophe on the coasts seek shelter and services here. We have no time to lose to keep innovating.

But innovation on this issue turns out to be illegal in many places in the US. Most "zoning codes were written under the assumption that best practices of grid piping would remain best practices with incremental updates forever and ever. But innovation isn't always incremental," as Molly Winter of ReCode states, and so groups like them who work on ecological building design run advocacy campaigns to challenge archaic zoning so that closely monitored experiments in closedloop sewage treatment can happen. ReCode has had great success so far, receiving some of the first permits of its kind in Oregon. They are working on a set of "three highrise residential buildings in downtown Portland that do not flush into the sewer system. Their wash water is getting reused to flush toilets, cool mechanical systems, water the landscape, and then once the building has thoroughly used everything (aka shat in it) it is treated to the highest standards right on site by the plants and bacteria and then that clean water is infiltrated through the layers of gravel and soil into the groundwater right below. Innovating on this front was cheaper than updating the surrounding sewer infrastructure." Molly encourages us to join the brave people who looked at the plans for full onsite re-use and said, "said, yeah, that shit makes sense. Let's do it! We need to have more conversations like that as we have aging infrastructure all over the place. And it is old. As we look at updating and upgrading it for increased demand, three-fourths (3/4^{ths}) of that cost is just the pipes snaking through our cities. As we renovate it might make more sense to treat and reuse everything on site."

Not forgetting those without adequate sanitation, "every dollar invested in sanitation brings an average of \$7 return in health costs averted and productivity gained." So, globally, if universal sanitation were achieved by 2020, it would cost just over \$95 billion but save more than \$660 billion. (*The Big Necessity* stats from 2008, 72).

Since I'm speaking to a crowd of peacemakers and peacebuilders, the Human Development Report authors noted in their report that "when it comes to water and sanitation, the world suffers from a surplus of conference activity (especially about water) and a deficit of action...The 1.8 million child deaths each year related to clean water and sanitation dwarf the casualties associated with violent conflict. No act of terrorism generates economic devastation on the scale of the crisis in water and sanitation" (*The Big Necessity*, 68).

In addition to making economic sense, and peacemaking sense, healthy elimination is good for you too, throughout the lifespan, but especially as you begin to have aging infrastructure. Your poo matters. Sages of long ago understood that a good bowel movement was the key to good health. A lot of stress sits in our guts, and the food we eat interacts with it, bringing us closer or further from wholeness with each choice we make. If we know that the health of our soil increases when we eat healthier, it is yet another motivator to eat fiber and be regular. Speaking from experience, it brings greater relief to my body to know that what I'm putting out will not do damage, but assist in the circle of life. This is where I consider defecatory justice to be connected to food justice, just the back end of it. At Wildseed land community, a black and brown led experiment in food sovereignty and solidarity culture, we built a composting toilet and called it "the Movement Center for Release and Renewal."

If religious connection to the topic inspires you, know that religious texts speak to etiquette and rhythm. In Judaism, the *Asher Yatzar*, is a prayer recited upon leaving the bathroom. This prayer comes in a series of blessings generally done upon waking up in the morning, following on blessings for the miracles of opening your eyes for the first time, your feet touching the floor for the first time, ...

"Blessed are you, Adonai our God, ruler of the universe who formed humans with wisdom and created us with openings and hollows and tubes. It is clear in the presence of your glorious throne that if one of them were ruptured or if one of them were blocked it would be impossible to stand before you and praise you for any length of time. Blessed are you Adonai, who heals all flesh and acts wonderously..."

The humble bowel movement can remind us of our limited humanness and the Creator's greatness. It can remind us of our connection to all things. When participating in Indigenous decolonization work alongside First-Nations folks in Canada, they challenged some of the settler-religion that got forced upon them, saying, "you Christians say do unto others as you'd have them do unto you." We say yes to that, but we also have always recognized that humans aren't the only ones in the flow, and it's deeper than that. We say, "do unto those downstream as you'd have those upstream do unto you." Who is downstream of us? What are they experiencing metaphorically and literally from our disposable-heavy society? What does it mean for us to flush our crap onto them? This is the golden rule literally translated into our water systems. Cornel West speaks to the etymological connection between the words bowels and compassion in the Biblical Greek. They come from the same root. We have constipation in our compassion

these days: is crucial that our "bowels of compassion are moved by what we are observing around us.

Rose George, in *The Big Necessity: The Unmentionable World of Human Waste and Why It Matters* notes that "the material itself is as rich as oil and probably more useful. It contains nitrogen and phosphates that can make plants grow and also suck the life from water because its nutrients absorb available oxygen. It can be both food and poison. It can contaminate and cultivate. So we need to be careful, and we can be if people get more comfortable talking about poop and sanitation and can have a calm discussion about what to do. With proper planning, and great attention paid to industrial and pharmaceutical cross contaminants, in the future we could fertilize half or all our food, depending on our diet. Humanure is brown because of a lot of carbon in it; if we get that into the soil it will bind to the minerals in there, as well as absorbing carbon dioxide from the air. And wow, healthier food, and therefore, healthier people. Chemical fertilizers by definition don't have carbon in them. Imagine if we could move our animal and humanure to our soil we might not need to rely on fossil fuel based fertilizers, or mined minerals from far away. Imagine how much energy we could save!" How it could help slow down global warming, and take the pressure off people who live in the path of current extractive industries.

We're not there yet—or anymore—as there are remote places and cultures already practicing defecatory justice—but thinking about where our poop and pee goes is the first step in activating our ability to turn "waste" into resources," and think about how we want to reuse it and what things we don't want to reuse from it. The change seems hard to do, but it is necessary for it to pass. Transforming our systems is safer than staying with the status quo. Over the long term it's more efficient and less costly…allowing more dollars to flow to address treatable diseases and the lack of ecological sanitation worldwide. It's also more in-line with a possible world to come, the world people committed to nonviolence dream of. Like commitment to nonviolence in other areas, this one requires us to do something different than the mainstream and examine our most intimate and routine of actions for how they are contributing to a violent status quo. And if you're a person of faith, and interested in eschatology, which is the big word for the study of the end times that I began with, know that it's not such a jump between eschatology and scatology. Our texts and best traditions invite us to "begin with the end in mind."

So the next time you go to the bathroom, at home and when you're traveling, ask yourself, like Molly does, "where does my poop and pee go? Will they be gainfully employed? Or will they be wreaking havoc in some water way somewhere?" And if you don't know, find out. And if you don't like the answer, go to the people who have decision-making power about this in your area, and let them know you're ready for re-use, a holistic poop loop.

So here I am at the end of the speech anyway. I feel fine. A little tired maybe. ^(C) Some of you may think I'm full of ...well, you know by now. I'm excited for our dialogue now and through lunch, if you can stomach it. As I wrote this I skimmed reviews of the United Nations recent report that advocates for immediate and urgent action to curtail carbon emissions.

The report admits that "there is no documented historic precedent" for the scale of changes that will be necessary. However the world has briefly achieved such rapid change at regional levels during eras of great upheaval...and the decade of the 2020s is about to be one of the most

important years in all of humanity. Commentary Eric Holhaus says, and I agree that, we're about to enter one of the most creative, meaningful, transcendent eras of human history — *simply because we must.* That makes it an exciting time to be a scientist and writer, a student, parent, or really, for my purposes of research and mobilization anyone who poops. This is a time where there is no longer us vs. them, but it's all of us or none of us. "Everyone, and every idea, is now a necessary part of the solution. We are all in this together."

Thank you.