The blue-and-green-marbled planet is trying her best to restore stability.



(Ilustration by Gracia Lam)

On this dock overlooking a lake in the Adirondack Mountains, there are two wooden chairs. This morning I sit in one of the chairs, as I have on so many other mornings, and look across the lake to the steep ridge on the other side, now beginning to shimmer with the rays of the sun rising behind it. The ridgeline, so familiar to me that I could draw it for you blindfolded, is a series of soft peaks bending northward, bowing in the direction of the retreat of the Laurentian glacier that formed them. Although I cannot see beneath the green shawl of trees worn across their shoulders, the peaks are made of a very old, rarely visible part of the igneous crust of Earth thrust upward and released: still reaching, undulating, bending, spreading.

The mountains skipped like rams, the hills like lambs (Ps. 114:4). But the tempo of the dance is very slow: mountain time. The dance is accompanied by the up-tempo

journey of drops of water tumbling down the sides of the ridge, carving the igneous rock into soft scoops in the streambeds, and spilling into this lake, where they rest for a while until the summer heat evaporates them upward to form clouds, from whence they will once again return as rain, here or somewhere else. In the morning mists or in an afternoon rain, I see a glimpse of this process.

Both the ridgeline and the drops, stone and water, exhibit Earth's agency: actions designed to produce a particular effect, demonstrating the rhythm of the planet's intrinsic formation of herself, her continual becoming.

Earth's agency has been expressed scientifically in the Gaia theory, posited by chemist James Lovelock and microbiologist Lynn Margulis in the 1970s. The theory describes the life-affirming relationships between living and nonliving Earth elements. The temperature and composition of Earth's atmosphere is actively regulated by the life upon it—a community of elements and organisms that interact with one other and their surroundings. The maintenance of relatively constant cycles and conditions is described by the term *homeostasis*: the ability to adjust so as to remain essentially stable.

Climate change unequivocally exemplifies the mechanics of the Gaia theory. When I first learned about the theory decades ago, I was in seminary, struggling to understand the theological implications of a worsening climate crisis. The level of carbon in the atmosphere was about 360 parts per million. Now the level is about 421 ppm. The changes we are experiencing on the planet are an increasingly intense adjustment on the part of Earth's systems to respond to the excesses of us, of our participation in these cycles. The hurricanes, droughts, heat waves, polar vortexes are all responses to the effects that we've created. I think about the iconic picture of the cloud-blessed blue-and-green-marbled Earth from space, looking so placid and vulnerable. Maybe, although Lovelock named one of his later books *The Revenge of Gaia*.

Revenge is far too anthropocentric for my understanding of Earth's agency. But the cloud-blessed blue-and-green-marbled Earth in all her glory is trying her best to bring the planet back to homeostasis. As a biologist friend quipped to me: "If the Earth doesn't have agency, we are in deep trouble." And we are perilously slow learners.

Anyone who has a dog learns to know the signs perfectly well. At our house, the pleading eyes start at least a half hour before dinnertime. Even the suggestion that we might go out for a w-a-l-k can cause dancing, accompanied by quiet whines of impatience: our dog exerting her agency.

But because some humans felt the need to set ourselves apart, there was a time, not so far back, when we did not accept that dogs had agency, let alone elephants and narwhals, mosquitoes and bacteria. Now, brick by brick, the wall of our collective hubris crumbles. We now know that agency is not exclusive to the animal kingdom. Plants care for saplings of their own species and particularly for those saplings genetically related to them. They, too, communicate. Trees warn each other of danger—an insect attack, the hungry mouth and tongue of a giraffe on its way.

We are now coming to accept agency even in nonliving beings. Some nonliving beings express that agency in actions and songs that most humans are not attuned to feel or to hear. And we live such short lives that by the time the action or the song reaches us—the skipping of the hills like lambs—millennia have passed and we've missed it.

In the meantime, melting glaciers and burning forests, symptoms of an excess of carbon already in the atmosphere, are causing significant harm to most species—including, of course, *Homo sapiens*. To say this involves no value judgment and no favoritism. If the responsive actions on the part of the planet through her adjustments are successful, some sort of life could be maintained.

But that life may not include humans. And this is where things get a little dicey. For those of us steeped in non-Indigenous religious traditions, human exceptionalism seems to be essential. The sense that Earth might ignore us and produce life without us seems unfair. This is ironic, of course, because by any scientific measure we are a part of the created world, the world we call nature. Earth can't ignore us any more than we can ignore Earth.

As far as I know, most Indigenous languages lack a word for nature. After all, plants, water, earth, animals (human and otherwise), and sky are all made up of the same elements interacting with each other. The relationships have been recognized for tens of thousands of years by Indigenous peoples. Living in a state of acknowledged dependence, they learn to accept the agency of each part and the human responsibility to help maintain the delicate balance. As scientist and Potawatomi

elder Robin Kimmerer remarks, this is explicitly demonstrated through language based on being and agency. For example, the Potawatomi language retains personal pronouns for both living and nonliving members of the Earth's family.

To me, this perspective seems simple and right—and frankly, crucial to the future of humans within Earth's community. But I often ask myself: Is it even worth the effort to reorient how a community of self-absorbed, overconsuming, arrogant human beings looks at itself within Earth's community? Might this attempt dissolve into an academic exercise while the planet burns?

Maybe. But alongside the other mitigation measures—technical, social, political—a component of spiritual exertion might strengthen us and even give us new hope. The church needs to face this. "Stewardship" for creation surely makes no sense. Because, as we have seen, Earth has plenty of agency to care for herself.

We might begin, in the Christian tradition, with a deeper understanding of what it means to be made in the image of God. Are we really the *only* ones made in this image? A static image—if we imagine it like a photograph—has absolutely no corollary in the created order, where relationship and constant change are basic characteristics. Becoming is more basic than being, and all is in God.

Understood as relationship and change, God's image, an embodiment of God's love, is as surely in a beach rose, a frog, or a dolphin as it is in us. Each one's agency displays how the created world activates a joyful relationship: the pink hue and scent of a beach rose pull in the industrious bee as well as my nose; the sticky tongue of a frog scoops up a mosquito that just might have been on her way to stick her proboscis into my neck for blood; the joyful cavorting leaps of a pod of dolphins make me laugh.

For some, the idea that we might be only one of many manifestations of God's image is uncomfortable. But do we really think that this makes us any less beloved by God? Get over it, I want to say to those who insist on favoritism by God for humans: there are other siblings—microbes and mountains, leopards and leeches, all beloved. These intricately evolved beings and systems in miraculous relationship are all images of the love of God.

Isn't it enough to be one of them? To belong to the whole? Shouldn't a truly theocentric perspective accept humans as simply one part of the magnificent natural order created by God?

Of course, humans, like everyone else, from mountain to mole, have a unique role to play within and for the whole.

Earth, for instance, does not act ethically. Her agency, her actions, are not good or bad—they just are. There are no moral duties or obligations. As Bill McKibben reminds us again and again: climate change is just physics. But human beings can, and sometimes do, act ethically and with moral purpose. Indeed this is a survival mechanism for human-to-human relationships. We should always seek equity and justice for any and all of our own species. Sometimes we regulate our interactions through laws. But can our human moral agency be borne out in laws prescribing the interactions of human-to-other-than-human relationships?

I confess that part of me is thrilled when I read about rights being extended by some government edict to something other-than-human: Ecuador extending rights to Mother Earth to "maintain and regenerate its cycles, structure, functions and evolutionary processes." Or New Zealand granting personhood to the Whanganui River. It's about time! Let the rivers clap their hands. This new area of jurisprudence is vital because humans need to restrain other humans to control our manic inability to live with humility within the whole, to help Earth maintain her balance.

At the same time, I find myself hesitant about this rights-centered environmental protection. God knows, rivers, forests, Earth herself are far more deserving than corporations to be given the rights of personhood. But rights are based on human laws, human needs, human constructs. Do we really know enough to judge the rights of rivers, of ants, of trees? Not only does litigating an obligation to an other-than-human part of creation necessitate confrontation with other members of our own species, it implies once again that we are separate. The river, the ant, and the tree somehow need the construct of our human laws to exist.

Extending our moral infrastructure by law to other living and nonliving beings on Earth offers a very human way to contribute to Earth's maintenance of the whole. For the time being it may be the best we can do, a step in the right direction, but I don't think that facts (Gaia theory) and laws (rights for rivers) alone can provide sufficient incentive for the human species to help save itself.

As we pursue the rights of nonhuman beings, we manifest yet another version of human exceptionalism. This may prevent us from following the wisdom of Indigenous teachers who suggest relationships based on love, respect, gratitude, and reciprocity.

Reciprocity is a far more powerful expression of kinship than rights. Love is more powerful than laws.

As many wise people have said, we will not save what we do not love, and we cannot love what we do not know. And knowing in this case is not something we do with our minds, but with our hearts. That begins by responding to Earth's offer of intimacy.

The most miraculous part of Earth's agency is not how she makes mountains rise and streams carve or how she responds to our carbon overload through heat waves and vortexes. It's how she offers humans an invitation to intimacy, to experience her with awe, humility, gratitude, and joy, inviting a response from all of our senses, our hearts and souls, not just our minds. Earth becoming, in beauty, offers us an opportunity to respond.

Maybe God created this luscious Earth, planet of stunning beauty, of intricate communities and operating systems, simply to bless the inhabitants—all inhabitants, each exhibiting a particular response true to their being: the hummingbird to the red of a flower, the bear to the taste of running salmon, the person to the beauty of a mountain range.

Writer David Abram suggests that migrations—of salmon, of cranes, of so many living beings—are expressions of Earth, "slow gestures of a living geology" that help to perpetuate the ongoing metabolism of the planet. He sees migrations as the surest sign that Earth is alive, breathing. But there are signs everywhere: the misty, purple-green hues of a mountain range; the smell of a balsam fir laid down as a bed in a lean-to; the tart taste of the first apple plucked prematurely from the tree; the heat of the sun hitting my face as I emerge from the forest out into a field, sleeping under snow in the winter; the plaintive song of a sole cricket chirping in our house.

This is the living Earth exerting agency by calling me to see, smell, taste, feel, hear. Our response to these expressions of Earth's agency can lead us into a conversation that restores us to the intimacy of being just a human part of the "kin-dom."

By any means necessary, we need to nurture that intimacy—in ourselves, and perhaps more importantly, in our children. Families and churches and schools and government policies and everyone else need to make sure our children—all our

children, no matter where they live—are introduced to their brothers and sisters in the other-than-human world and that they never lose the feeling of connection.

I am blessed by a view of the Adirondack Mountains through the west windows of our farmhouse in the Lake Champlain valley. Each morning, I lift up my eyes to these hills, the same ones that graced the minds and spirits of my mother and grandmother.

Maybe the mountains skipping like lambs are actions designed to produce the simple effect of joy, of love. Maybe the skipping mountains are only perceived by those humans who love the mountains as intensely as they may love God. Maybe it is all the same love. The pervasive joy comes from deep depths of a planet imagined and created by God, with agency working through systems of air, water, soil, microbes, sequoias, and humans with cultures that all celebrate the becoming of Earth. The "I will be" of Earth, Earth seen by God as very good, creation flowing ever onward with reciprocal actions: her mountains rejoicing.