

On Gaia Democracies

James Tully

THE SUSTAINABILITY CRISES AND TWO GAIA DEMOCRATIC RESPONSES

The Crises

We humans are aware that we are caught up in serious problems or crises of democratic, social and ecological sustainability and well-being. Over the last 500 years the West has developed a complex global social system that is socially and ecologically unsustainable in the long run, and ultimately self-destructive. It exploits, undermines and destroys the informal, biodiverse social and ecological conditions that sustain life on earth for *Homo sapiens* and many other species and ecosystems. This exceptionally complex social system – or, rather, assemblage of interlocking systems of production, consumption, regulation and warfare – has been spread around the world in the language of civilization, modernization, globalization, peace and representative democratization. It has always been met with various forms of resistance and counter-responses, and thus should be characterized, as Edward Said argued, as a ‘contrapuntal ensemble’.¹ It is a modernizing assemblage of ‘vicious’ social systems in the technical sense that the regular feedback loops within these social systems reproduce and intensify the destructive effects of the systems on the informal, everyday social spheres, ecosphere, biosphere and abiotic sphere on which they depend and which they exploit.²

¹ Edward Said, *Culture and Imperialism* (New York: Vintage, 1994). See Jeanne Morefield, Chapter 7, this volume.

² This chapter draws on James Tully, ‘Reconciliation Here on Earth,’ in *Resurgence and Reconciliation: Indigenous-Settler Relations and Earth Teachings*, ed. Michael Asch, John Borrows and James Tully (Toronto: University of Toronto Press, 2018), 83–132; James Tully, ‘Life Sustains Life 1: Value, Social and Ecological,’ in *Nature and Value*, ed. Akeel Bilgrami (New York: Columbia University Press, 2020), 163–80; and James Tully, ‘Life

The well-known effects are global warming, climate change, escalating pollution and the diseases it causes; the melting of polar icecaps and glaciers, and the release of even more lethal greenhouse gases this produces; the acidification of oceans and the vicious cycles this generates; the depletion of non-renewable resources; and the use of renewable resources more quickly than they can renew themselves. The economic scramble over what is left is increasingly damaging to the environment. It has cascading effects on weather and global human and species suffering. These lead to more destructive wars and war preparation to protect these unsustainable social systems; rapid increases in climate refugees and war refugees; and starvation, poverty, racism, and inequalities in life chances.

We have known that this global ensemble is unsustainable socially and ecologically since the first meetings on the sustainability crisis in the 1950s and 1960s at the United Nations. These warnings were followed by Rachel Carson, Barry Commoner, the first Earth Day in 1970, The Club of Rome, *The Limits to Growth*, the Brundtland Report in the 1980s and the emergence of the concept of sustainability and well-being as a meta-norm in national and international relations. Thousands of scientists have reaffirmed and extended these findings and summarized them in the reports of the Intergovernmental Panel on Climate Change (IPCC). Yet the crisis continues despite efforts to address, govern and regulate it by state-based representative democracies and their global institutions. As David Held summarizes in Chapter 16, these institutions are in a 'gridlock' that sustains the trajectory of the vicious systems. We are already into the sixth mass extinction of biological diversity, and biological diversity is a necessary condition of sustainable life on earth. If these trends continue, much of the earth will be less habitable or uninhabitable by the turn of the century. This is referred to as the Medea hypothesis.³

Thus, the great question today is: What have we learned over the last seventy years and how can we address the crises most effectively today? The regeneration of Gaia *philia* and Gaia democracies is my response to this question.

Four Phases of Life Systems

The first thing we have learned from the study of complex social and ecological systems is that it is not unusual for them to become vicious and unsustainable in the way ours have. They develop in such a way that they use up the conditions that sustain them, degrading or destroying the interdependent life forms on

Sustains Life 2: The Ways of Regeneration with the Living Earth,' in *Nature and Value*, ed. Bilgrami, 181–204. These chapters contain more detailed arguments and references.

³ Mark Lynas, *One Final Warning: Six Degrees of Climate Emergency* (London: 4th Estate, 2020); David Wallace-Wells, *The Uninhabitable Earth: Life After Warming* (New York: Tim Duggan Books, 2019); Peter Ward, *The Medea Hypothesis* (Princeton: Princeton University Press, 2009).

which they depend, and, thus, ultimately, destroying themselves. There are many examples of this in the history of life systems, both human and non-human, as the academic literature on civilizational collapse and super-predation shows. Moreover, and more importantly, there are also many examples of members of both social and ecological vicious systems changing their unsustainable behaviour and transforming their systems into virtuous and sustainable systems before collapse, and other examples of recovering from collapse and regenerating 'virtuous' or self-sustaining systems.

Accordingly, the complex life-systems sciences hypothesize that there are four phases of life systems. The first, virtuous or sustainable phase consists of cooperation, contestation and conciliation cycles. That is, the individual and collective members of these systems sustain themselves in lifeways that co-sustain the well-being of all the interdependent members, relationships and systems on whom they inter- and co-depend that comprise the complex webs of life and their strong coupling with abiotic earth systems. When some members engage in unsustainable ways of life, the systems evolve ways of conciliating these members back into sustainable life patterns. That is, life sustains life. This phase is thus 'homeotelic'. The orientation of and to cooperation is predominant.⁴

The second, transitional or degenerative phase occurs when a system is unable to conciliate unsustainable behaviour. The unsustainable behaviour continues to develop by means of positive feedback loops that reinforce and increase the behaviour further and further from dynamic equilibrium. Common examples of this transitory phase are the transitions from a homeotelic predator-prey system towards a super-predatory system and the escalating violence and counter-violence dialectic or 'security dilemma' of the global arms race. The third phase occurs when the unsustainable behaviour increases to a tipping point that transforms the system as a whole into a predominantly vicious, unsustainable and, eventually, self-destructive system. Our current global assemblage of vicious social systems and the sixth mass extinction they are causing during the 'great acceleration' since World War II are in this third phase. It is 'heterotelic': oriented to ruthless competition or struggles for existence rather than cooperation.⁵

Fortunately for life on earth, there is a fourth phase. This 'regeneration' phase occurs when the members of unsustainable systems find ways to practice and regenerate sustainable ways of living. Regeneration of co-sustainable forms of life grows by means of negative feedback loops and reconnecting with the power of neighbouring life systems. They gradually displace or transform the unsustainable systems, either before they collapse or

⁴ Edward Goldsmith, *The Way: An Ecological World-View* (Athens: University of Georgia Press, 1998), 239–45. The four cycles that Nelems mentions in Chapter 9 constitute an example of a system in the homeotelic phase.

⁵ Goldsmith, *The Way*, 261–67.

afterwards. These processes are referred to as ecological succession or reconnecting with *anima mundi*: the power or animacy that runs through and sustains all life on earth.⁶ For example, twenty-one human civilizations have come and gone. Life has recovered from five previous mass extinctions. Overall, life has sustained and complexified life through multiple examples of these four types of phases for 3.8 billion years or we would not be here. However, over the last seventy years the extinction of species and ecosystems (biodiversity) has occurred at a rate that far exceeds the historical norm. Although Life will survive the sixth mass extinction, whether or how many *Homo sapiens* will survive is unknown.⁷

Thus, the fourth phase of complex systems – of regeneration and transformation of vicious systems – is of immense importance for us. We can learn from these examples and think of how to apply them to our own situation. The vicious social systems that cause the sustainability crises are not automatons, as the doomsayers claim. They are very complex local and global social systems to which we are subject and on which most of us depend for our livelihood. Our daily, habitual ways of thinking and acting within them reproduces them. However, we are not so enslaved to them that we cannot think or act otherwise. We are free to reflect on them and to ask the questions we are asking: namely, how can we act and live differently in order to regenerate sustainable systems and transform our unsustainable ones. Moreover, we are free to act on how we answer these questions.

I will discuss two complementary traditions in which people are responding to the sustainability crises in this way. They are examples of Gaia democracies. There are also several examples in the chapters of this volume.

The Problem to Which Gaia Democracies Are Responses

At the core of Gaia democracies responses is the hunch that the reason we have difficulty responding effectively to the sustainability and well-being crisis as a whole is that we misperceive its nature. The reason we misperceive the nature of crisis is that we view it from within the ways of thinking and acting that sustain the vicious social systems that are causing it. It is our socialization and self-formation as conscripts within the vicious social systems that discloses the world around us and our relationships with the environment in a way that overlooks or distorts how they degrade the conditions that sustain life. Thus, even when we can no longer ignore or discount the damage we are doing, we

⁶ This is the central themes of Stephen Harding, *Animate Earth: Science, Intuition and Gaia*, 2nd ed. (Cambridge: Green Books, 2013); see also Fritjof Capra and Pier Luigi Luisi, *The Systems View of Life: A Unifying Vision* (Cambridge: Cambridge University Press, 2015). For ecological succession, see subsection 'The Animacy of Symbiosis'.

⁷ Harding, *Animate Earth*, 208–49.

respond in the standard problem-solving ways of the vicious systems, thereby reproducing rather than changing them.

Accordingly, the problem is not simply one of misperception, but also of being caught up in an unsustainable way of life that generates this way of perceiving the world. One of the first earth scientists to point this out was Barry Commoner in 1970:⁸

To survive on earth, human beings require the stable, continuing existence of a suitable environment. Yet the evidence is overwhelming that the way in which we now live on earth is driving its thin, life-supporting skin, and ourselves with it, to destruction. To understand this calamity, we need to begin with a close look at the nature of the environment itself. Most of us find this a difficult thing to do, for there is a kind of ambiguity in our relation to the environment. Biologically, human beings *participate* in the environmental system as subsidiary parts of the whole. Yet, human society is designed to *exploit* the environment as a whole, to produce wealth. The paradoxical role we play in the natural environment – at once participant and exploiter – distorts our perception of it.

[That is,] all of modern technology leads us to believe that we have made our own environment and no longer depend on the one provided by nature. We have become enticed into a nearly *fatal illusion*: that through our machines we have at last escaped from dependence on the natural environment. [Yet,] every human activity depends on the integrity and proper functioning of the ecosphere. [my italics]

I will discuss how our exploitive social systems generate this ambiguity and illusion of externality and independence later in the chapter. I would like to begin with the following question: How do we free ourselves from the unsustainable way of life that generates this illusion and misperception and move around to seeing ourselves as interdependent participants within and with the living earth to which we belong? This is the way of becoming democratic citizens of Gaia democracies. Because our perception of the world is partly shaped by our mode of being in the world, we cannot see clearly the way forward unless we begin to change our way of being in the world to a more sustainable way. As in ecological succession, we have to begin to be the change we wish to bring about in order to see more clearly the nature of that change.⁹

One of the first, non-Indigenous people to see this clearly was Aldo Leopold in *Sand County Almanac* (1949). He argued that if we are to live in ways that sustain the conditions of life on earth for us and future generations, then we have to move from seeing ourselves as the all-knowing conquerors and controllers of nature to seeing ourselves as plain members and citizens of the biotic communities in which we live and on which we depend for every breathe and step we take. We need to take this engaged turn in order to observe and learn by trial and error how to participate in these life cycles in mutually

⁸ Barry Commoner, *The Closing Circle: Nature, Man and Technology* (New York: Alfred A. Knopf Inc., 1971), 14–15.

⁹ Harding, *Animate Earth*, 250–56.

sustaining ways. In Gaia democracies humans treat all lifeforms as fellow citizens, and the interdependent relationships and responsibilities among them as co-learning and co-governance relationships. Leopold called this evolutionary transformation the ‘land ethic’. I refer to it as Gaia ethics:

All ethics so far evolved rest upon a single premise: that the individual is a member of a community of interdependent parts . . . The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively: the land.

In short, a land ethic changes the role of *Homo sapiens* from conqueror of the land-community to plain member and citizen of it. It implies respect for his fellow-members, and also respect for the community as such.

The reason this transformation is necessary is that the conqueror and controller of nature role is ‘self-defeating’. It is based on the presumption that the conqueror-controller ‘knows, *ex cathedra*, just what makes the community clock tick, and just what and who is valuable, and what and who is worthless, in community life. It always turns out that he knows neither, and this is why his conquests eventually defeat themselves’.¹⁰

Two Traditions of Gaia Democracies in Response to a Shared Problem

The first of two traditions of Gaia democracies is the family of ecosocial democracies that many Indigenous peoples have been practicing for thousands of years. It is embodied in the traditional ecological knowledge and wisdom (TEKW) and practices they have acquired over centuries of learning by trial and error how to participate as evolving apprentices in mutually sustainable ways with ‘mother earth’. These are referred to as earth teachings learned from studying earthways.¹¹ The second tradition is much more recent. It comprises the communities of practice of ecosocial democracies that have developed in practice and in dialogue with the ecological and life sciences, and sometimes in dialogue with Indigenous peoples.

The remarkable feature of these two very different traditions is that they share a commitment to participatory democracy. For both, in different languages and ways, the power of self-government consists in people becoming a ‘people’ (*demos*) and ‘citizens’ in the course of exercising powers of self-government (*kratos*) by, with and for each other in observing, learning, discussing, interacting, contesting and resolving disputes together – of governing and being governed together – without anyone ruling over them (*arche*). That is, democratic self-government (*demos+kratos*) is engaged *power and knowledge with and for each other*. This

¹⁰ Aldo Leopold, ‘The Land Ethic’, in *A Sand County Almanac: With Essays on Conservation from Round River* (New York: Ballantine Books, 1966), 239–40.

¹¹ John Borrows, ‘Earth-Bound: Indigenous Resurgence and Environmental Reconciliation’, in *Resurgence and Reconciliation*, ed. Asch, Borrows and Tully, 49–82; Aaron Mills, ‘Rooted Constitutionalism: Growing Political Community’, *Resurgence and Reconciliation*, ed. Asch, Borrows and Tully, 133–74.

is the classic Athenian conception of democracy.¹² In contrast, all non-democratic forms of government employ different forms of *power and knowledge over the governed* in ruler–ruled or master–subject hierarchical relationships (*arche*).¹³ These two Gaia democracy traditions extend the classic Athenian conception of democracy from the polis to Gaia.

THE LIVING EARTH TRADITION OF GAIA DEMOCRACIES

Gaia Hypothesis

In the 1960s Sir James Lovelock, an earth systems scientist, discovered the Gaia Hypothesis. Despite the vast changes in the solar energy coming to earth over the last 3.8 billion years, and despite the vast changes in the forms of life on earth over the same long period, and despite all the changes in earth, ocean and atmospheric conditions over the same period, the atmospheric conditions and temperature of earth have somehow remained in the range that sustains life on earth. The hypothesis is that the biosphere, and all the systems of life that compose it, somehow regulate the atmosphere and temperature to sustain life. That is, the biotic and abiotic sphere as a whole is self-governing: self-organizing (sympoiesis) and self-sustaining (symbiosis and symbiogenesis).

The Gaia hypothesis has survived a number of tests and it is now considered a theory. A majority of the scientists on the IPCC have endorsed it, in slightly different ways.

This has led to attempts to explain how the systems that compose the ecosphere actually regulate the content and temperature of the atmosphere within a broad range of cycles that sustain most forms of life over vast stretches of time. This research has grown hand-in-hand with life and earth systems theory and complexity theory.¹⁴

The Animacy of Symbiosis: Life Sustains Life

For the purposes of those of us who wish to know how we should live within this complex system in mutually sustaining ways, the important insight came

¹² Josiah Ober, 'The Original Meaning of 'Democracy': Capacity to Do Things, Not Majority Rule,' (Princeton/Stanford Working Papers in Classics, Stanford University, Stanford, CA, 2007), <http://dx.doi.org/10.2139/ssm.1024775>. Protagoras, the great defender of Athenian democracy, understood democracy as the way in which humans participate in the co-evolution of all forms of life: Plato, *Protagoras*, ed. Gregory Vlastos (Indianapolis: The Bobbs-Merrill Company, 1956).

¹³ For an introduction to power-with (*kratos*) and power-over (*arche*), see James Tully, 'Integral Nonviolence: On the Significance of Gandhi Today,' *Politika*, 2019, www.politika.io/en/notice/the-power-of-integral-nonviolence-on-the-significance-of-gandhi-today.

¹⁴ James Lovelock, *The Vanishing Face of Gaia: A Final Warning* (London: Penguin Books, 2009); Harding, *Animate Earth*; John Gribbin and Mary Gribbin, *He Knew He Was Right: The Irrepressible Life of James Lovelock* (London: Penguin Books, 2009).

from Lovelock's colleague, the life scientist Lyn Margulis. She argued that the Gaia hypothesis is not based on the assumption that the system of systems that compose the ecosphere is itself a purposeful living being that regulates the climate and temperature to sustain life. Rather, given the holistic, regulative role that feedback loops of the system play, the self-sustaining quality of Gaia is an emergent property of the ways that the life systems that compose Gaia coordinate their interactions. In her famous words, 'the Gaia hypothesis is just symbiosis and symbiogenesis on a planetary scale'.¹⁵ Life systems and their members sustain themselves in ways that also co-sustain the interdependent life systems and members on which they interdepend.

Stephen Harding describes the Gaia hypothesis or theory in the following way:¹⁶

The key insight of the theory is wonderfully holistic and non-hierarchical: it suggests that it is the *Gaian system as a whole* that does the regulating, that the sum of all the complex feedbacks between, life, atmosphere, rocks and water give rise to Gaia, the evolving, self-regulating planetary entity that has maintained habitable conditions on the surface of our planet over vast stretches of geological time.

The emergence of new properties in the course of the complex interaction of life systems is the way that life itself has developed in increasingly complex ways: that is, through life systems living-with each other in complex interdependent ways (symbiosis) and giving rise to new life systems (symbiogenesis). Spatially, symbiosis refers to the immensely complex webs or networks that link all forms of life in relationships of reciprocal interdependence. Temporally, these networks are cyclical. They form cycles in which another member uses the waste of one interdependent member in some sustaining way, so nothing is wasted, and at a temporality that enables species and ecosystem renewal. Photosynthesis is the paradigm of this spatio-temporal quality of reciprocal interdependency and cyclical renewability. Indeed, it is the basis of life sustaining life.¹⁷

Homo sapiens, as one minor species among millions, are members and citizens just like all others, with ecosocial democratic responsibilities to participate in ways that reciprocally co-sustain the networks that sustain us: that is, in virtuous ways.

Life systems are not automatically harmonious. They are often far from equilibrium, patchy, full of cheaters or free riders, and subject to perturbations that can cause virtuous systems, and their co-dependent systems, to tip into vicious states, as we have seen. Yet, despite that indeterminacy, their remarkable qualities of resilience enable them to sustain themselves over vast stretches of time. If vicious systems were the major factor

¹⁵ Lyn Margulis, *Symbiotic Planet: A New Look at Evolution* (New York: Basic Books, 1998), 120.

¹⁶ Harding, *Animate Earth*, 70.

¹⁷ For the emergence of photosynthesis, see Commoner, *The Closing Circle*.

in evolution, then life on earth would have ceased long ago. The opposite is the case. Life has become more complex: symbiosis and symbiogenesis have prevailed most of the time, even recovering from mass extinctions.

Vicious systems are also not automatons. They too are far from equilibrium and subject to tipping points. The resilient powers of generation of life (sympoiesis) have the capacity to regenerate symbiotic networks within and around vicious systems, or on and around the ruins of them. This is the fourth, regeneration and transformation phase of life systems. They do this not by viciously counter-attacking a vicious system, but by means of cultivating symbiotic and symbiogenetic counter-communities of practice all around it and gradually transforming or replacing it. This is ecological succession.

Ecological succession works as the means of systemic transformation because life systems are *autotelic*: the means employed to generate and cultivate them determine the end. This internal relationship between means and ends is one of the great discoveries or rediscoveries of the ecological and human sciences in the twentieth century.¹⁸ In Mahatma Gandhi's phrase, just as the type of seed prefigures the plant, so, too, humans have to be the change they wish to bring about – for example, peace by peaceful means, democracy by democratic means, and sustainable life systems by sustainable means. Here is an illustrative example provided by geographer Michael Simpson of an old-growth forest recovering from decades of clear cutting:¹⁹

Living systems do not only reproduce themselves. Their very life processes nourish their habitat and strengthen the conditions of life around them. They thereby create an organism that is larger than themselves or their individual species. When a forest is growing back from a disturbance, herbaceous (non-woody) plants are the first to move in. These plants exude sugars that attract bacteria around their roots. The bacteria in turn exude an alkaline 'bioslime' that creates a favorable habitat for themselves as well as for the pioneer plant species. The alkaline condition of the bioslime also allows the bacteria to break down ammonia in the soil into nitrates that are taken up by plants, allowing them to grow vegetatively. This cycle of life creating the conditions for more life continues as the forest gradually grows into a rich, biodiverse ecosystem (ecological succession). Living systems are not only self-regulating but they are relational in so far as they build the conditions of life around them.

Symbiosis and Symbiogenesis in Ecosocial Systems: A New Synthesis

The human sciences have entered into a dialogue with these life and earth sciences in the following ways. First, the concepts 'symbiosis' and 'symbiogenesis' have a long history in the human sciences. They refer to how diverse individual human beings and communities have lived together in

¹⁸ See, for example, Aldous Huxley, *Ends and Means* (Oxford: Oxford University Press, 1946).

¹⁹ Professor Michael Simpson, Department of Geography, Glasgow University, personal correspondence, April 11, 2013.

interdependent relationships of peace and mutual support. Moreover, communities of practice researchers argue that informal symbiotic social relationships of mutual aid exist within and across every social system – even within the most vicious and damaging social systems. Accordingly, the vicious social systems that are embedded within and damaging the ecosystems that sustain life are also embedded within and damaging *informal* symbiotic social systems that sustain the communities in which we live. As early as 1902, Peter Kropotkin, in *Mutual Aid*, argued that ecological and social relationships of mutual aid have been the major factor in human evolution, outweighing vicious struggles for existence.²⁰

Second, there is widespread awareness that there are not two parallel paths of symbiotic evolution, one for non-human life and the other for human life. Rather, non-human symbiotic ecosystems and human symbiotic social systems are now perceived as evolving interdependently and reciprocally. They are studied as interdependent, coupled or co-evolving. *Homo sapiens* are studied as co-evolving and co-sustaining apprentices within their ecosocial systems.²¹ This is a revolution relative to the dominant view that humans and their social systems are separate from and independent controllers of the natural world. The consequence is the realization that ‘we can no longer understand the dynamics of either the natural system or the human subsystem in isolation without understanding the dynamics of the other component’.²² Accordingly, all social systems are ecosocial systems.

Third, the human sciences are now focusing on designing all kinds of social systems so they interact symbiotically, rather than destructively, with the ecosystems in which they are embedded. The way to do this is to design them so they interact with their surrounding ecosystems in relationships of reciprocal interdependency and cycles in which the resources we use and the ecosystems we effect always have time to renew themselves. As Fritjof Capra explains:²³

The key to an operational definition of ecological sustainability is the realization that we do not need to invent sustainable human communities from scratch but can model them after nature’s ecosystems, which are sustainable communities of plants, animals and micro-organisms. Since the outstanding characteristic of the Earth household is its inherent ability to sustain life, a sustainable human community is one designed in such a manner that its ways of life, businesses, economies, federations, physical structures, and technologies do not interfere with nature’s inherent ability to sustain life. Sustainable

²⁰ Peter Kropotkin, *Mutual Aid: A Factor of Evolution* (Mineola, NY: Dover Publications, 2006).

²¹ Kim Sterelny, *The Evolving Apprentice: How Evolution Made Humans Unique* (Cambridge, MA: MIT Press, 2012).

²² William E. Rees, ‘Thinking Resilience,’ in *The Post-Carbon Reader: Managing the 21st Century’s Sustainability Crises*, ed. Richard Heinberg and Daniel Lerch (Healsburg, CA: Watershed Media, 2010), 32.

²³ Fritjof Capra, *The Hidden Connections: A Science for Sustainable Living* (New York: Anchor, 2002), 230–31.

communities and networks evolve their patterns of living over time in continual interaction with other living systems, both human and non-human.

Moreover, a key feature is that sustainable human communities are designed so the unused by-products of any enterprise are usable by other enterprises. There is thus zero waste. These circular, sustainable systems of production, use and consumption are ‘cradle to cradle’ systems, in contrast to the current ‘waste’ or ‘cradle to grave’ systems that dominate contemporary economies. They are designed on the ‘biomimicry’ of circular ecosystems such as old-growth forests.²⁴

INDIGENOUS GAIA DEMOCRACY TRADITIONS

The Gift–Gratitude–Reciprocity Worldview

I will now try to describe some of the main features of Indigenous traditions of earth democracy that I have learned from Nuu Chah Nulth scholar Richard Atleo Senior (Umeek) and Anishinaabe scholars John Borrows and Aaron Mills. According to Umeek, the central idea is expressed in the Nuu Chah Nulth concept ‘Tsawalk’.²⁵ It expresses the insight that every living being is connected and sustained through relationships of reciprocal interdependence. These are fundamentally cyclical kinship relationships of gift–gratitude–reciprocity. They are the ground of our being. Although humans often take selfish advantage of these sustaining relationships and take without either taking care of a gift or reciprocating by giving to others (ingratitude), and so initiate vicious cycles, Tsawalk usually outweighs and outlasts these violations. Humans learn how to live together in reciprocally sustaining ways by learning from mother earth and their more-than-human relatives, who also make mistakes.

Humans begin to learn ecoliteracy through participatory self-formation and self-understanding as participants engaging reciprocally with ecosocial webs of life. By apprenticeship in the practices passed on by their ancestors, they come to acquire ways of perceiving and orienting oneself in the world that discloses it as a living system and humans as one species among an extended family of more-than-human relatives. This is a participatory, kincentric and cyclical way of life. The flora and fauna, sun and moon, creeks and oceans, are our kin – interdependent relatives or relations. They grow up to realize they have responsibilities to co-sustain the ecosocial relationships on which we depend. They are participatory democratic agents in the life systems as a whole, just like

²⁴ William McDonough and Michael Braungart, *Cradle to Cradle: Remaking the Way We Make Things* (New York: Farrar, Strauss and Giroux, 2002).

²⁵ Umeek E. Richard Atleo, *Tsawalk: A Nuu-chah-nulth Worldview* (Vancouver: UBC Press, 2004); and Umeek E. Richard Atleo, *Principles of Tsawalk: An Indigenous Approach to Global Crisis* (Vancouver: UBC Press, 2011).

other earthlings. Mother Earth takes care of us and we take care of her in gratitude and reciprocity. Moreover, humans learn from these basic life cycles to be grateful for the gifts and to reciprocate in turn, thereby bringing into being cyclical human relationships of mutual aid.²⁶

Potawatomi Environment and Forest biologist Robin Lee Kimmerer explains the richness of the gift-reciprocity view by showing its similarity to Western systems view of life:²⁷

Reciprocity – returning the gift – is not just good manners; it is how the biophysical world works. Balance in ecological systems arises from negative feedback loops, from cycles of giving and taking. Reciprocity among parts of the living earth produces [dynamic] equilibrium, in which life as we know it can flourish.

The Cedar Trees Institute that hosted the Workshop for this volume is founded on this gift–gratitude–reciprocity worldview, as far as we understand it, and in respect and reciprocity for being accepted as guests on the traditional territories of the WSÁNEĆ (Saanich), Songhees (Lkwungen), and Wyomilth (Esquimalt) First Nations.

The role of clans, masks, dancing, storytelling and giving thanks to mother earth is to help us learn these earth ways and lifeways. We learn by putting ourselves in the shoes of other relatives and learning how they sustain themselves, and thus how we can reciprocally relate to them in co-sustaining ways. We also train to enter into perceptual dialogical relationships with the animate earth through all our senses (synaesthesia). Through participation, apprentices begin to experience the animacy of the living earth: the power of gift-reciprocity relationships. It animates all life and is by far the greatest power on earth. By participating in its relationships and cycles in good ways we experience being animated by and belonging to mother earth.

Having learned these lessons from Mother Earth and her earth ways, Indigenous people apply them in their lifeways. They design their social systems on the life-sustaining, gift-reciprocity earth systems. The Indigenous word for governance among the northwest coast nations is ‘potlatche’. It is translated as the English word ‘gift’. However, unlike the English word ‘gift’, potlatche refers to the mutual exchange of gifts that always derive from and give rise to relations of reciprocity. They exist in and sustain life cycles. They reunite life-sustaining circles that either have been breached or simply need to be recollected and re-animated. This is Indigenous democratic, reconciliatory governance.

²⁶ John Borrows, ‘Earth-Bound,’ 49–82. For a comprehensive account of Anishinaabe Gaia democracy, see Aaron Mills, ‘Miinigowiziwin: All That Has Been Given for Living Well Together: One Vision of Anishinaabe Constitutionalism’ (PhD thesis, University of Victoria, 2019).

²⁷ Robin Wall Kimmerer, ‘Reciprocity – Returning the Gift,’ *Minding Nature* 7, no. 2 (2014): 18–24, www.humansandnature.org/returning-the-gift.

Four Phases of Gift–Gratitude–Reciprocity Systems

Indigenous gift-reciprocity relationships also go through virtuous, degenerative, vicious and regenerative phases. Indigenous ecosocial knowledge is pragmatic knowledge learned by trial and error. Once we see ourselves as plain members and citizens within Mother Earth this is the only way we can learn. The Raven Cycle Stories shared among the Indigenous peoples of the Northwest coast are full of learning stories of this kind. The most common Raven story is of some people failing to reciprocate for the gifts given to them by mother earth, their fellow flora and fauna or from fellow human beings. They become selfish, independent aggressive, greedy, avaricious and ungrateful. They take without reciprocating. When this happens, Raven comes along and tells stories that illustrate the mistakes they make and point in the general direction of how to correct them by reconnecting and regenerating good gift-reciprocity relationships. He always does this in puzzling, paradoxical, self-contradictory and hilarious ways that show he too is far from omniscient. This technique is in itself an important lesson in epistemic humility.

Robert Davidson, a great contemporary Haida artist, gives an example. When people become vicious, Raven points out this misperception and self-centredness by taking away one eye of the persons involved. In so doing, Raven enables them, paradoxically, to see the damage they are doing to mother earth and to future generations by not reciprocating. They lack the depth of vision to see the gift-reciprocity relations they are damaging. The next step, then, is to return to the earth teachings, reconnect with the broader gift-reciprocity systems, and regenerate healthy relationships with mother earth and each other. According to Davidson, this kind of reconnective and regenerative Gaia citizenship is what the Haida are doing on Haida Gwaii today in response to four generations of vicious settler resource extraction and the participation of some Haida in it.²⁸

Many Indigenous peoples have similar stories. The Anishinaabe call vicious actors ‘Windigo’ and the Cree call them ‘Wetiko’. On the Northwest coast, the Kwakwaka’wakw people have a famous Atla’gimma (‘Spirits of the Forests’) dance in which the virtuous citizens overpower the vicious members by surrounding them with gift–gratitude–reciprocity activities and offers of joining hands until the vicious members see the benefits of cooperation.²⁹ It

²⁸ Robert Davidson, ‘Untitled Document,’ in Robert Davidson et al., *Robert Davidson Exhibition: A Voice from Inside* (Vancouver: Derek Simpson Gallery, 1992), 3. For the movement of transformative reconnection on Haida Gwaii to which Davidson refers, see Louise Takeda, *Islands’ Spirits Rising: Reclaiming the Forests of Haida Gwaii* (Vancouver: UBC Press, 2015).

²⁹ See Douglas Deur (Moxmowisa), Kim Recalama-Clutsei (Oqwilawagwa), and William White (Kasalid/Xelimulh), ‘The Teachings of Chief Kwaxistalla Adam Dick and the Atla’gimma (‘Spirit of the Forest’) Dance,’ in *Plants, Peoples, and Places: The Roles of Ethnobotany and Ethnoecology in Indigenous Peoples’ Land Rights in Canada and Beyond*, ed. Nancy J. Turner (Montreal: McGill-Queens University Press, 2020), xvii–xxiv; and James Tully, ‘On Resurgence and Transformative Reconciliation,’ in *Plants, Peoples, and Places*, ed. Turner, 402–18. For

enacts the spirit of ecological succession that Mike Simpson describes in the botanical terminology noted earlier.

Transition to the Vicious Systems

In summary, I am suggesting there is a convergence or kinship between the Gaia democracies of Indigenous peoples and of the contemporary non-Indigenous ecosocial communities of practice influenced by recent western life and earth sciences. They appear to converge on the characterization of virtuous, degenerative and vicious ecosocial systems, and on the symbiotic way to transition from a vicious to a virtuous system. If this conjecture is at least partially correct, then it provides some common ground on which to discuss joining hands and working together in mutually respectful, democratic ways in response to the shared crises. However, before I turn to examples, I will describe briefly the main features of the global social systems that are causing the crises. These are the vicious systems that Gaia citizens need to understand and change.

MAIN FEATURES OF VICIOUS SOCIAL SYSTEMS THAT CAUSE THE CRISES

The Great Transformation and Acceleration

Rather than building social systems that participate in and co-sustain the social and ecological relationships of reciprocal interdependence on which they depend, the West built social systems that commodify, exploit and degrade them, and spread them around the world by imperial processes of colonization, modernization, globalization and representative democratization. These violent processes are presented as the universal and necessary linear stages of development and progress to modernization, democracy and world peace. Most of the major modern Western political traditions from the Enlightenment to the present share this generic worldview, while differing over specifics on the left, centre and right. In the 1940s, Karl Polanyi argued that these modernizing processes disembed humans from life-sustaining ecosocial systems and re-embed them in abstract, global vicious social systems that overlook, exploit and destroy the underlying virtuous ecosocial systems on which they depend. He called these processes the ‘great transformation’. The more recent social science on the ‘great acceleration’ since World War II builds on this base. Polanyi also predicted that if humans did not transform these systems they would destroy sustainable social systems and the environment. His analysis continues to be updated and applied to the ‘great acceleration’ after

Cree and Anishinaabe stories of vicious and virtuous cycles, see Hadley Friedland, *The Wetiko (Windigo) Legal Principles: Cree and Anishinabek Responses to Violence and Victimization* (Toronto: University of Toronto Press, 2018).

World War II. Nevertheless, the dire warnings are met with both inaction and gridlock or, at best, mitigation within the shared worldview and its constitutive institutions.³⁰

One of the main reasons that moderns have difficulty in seeing clearly the ways these modernizing systems cause the sustainability crises is that, as subjects of them, they are deeply socialized into its legitimating worldview and the competing interpretations within it. Consequently, they misperceive through this modernist lens the destructive relationships between the processes and the background, informal social and ecological systems they exploit yet also depend upon, as Barry Commoner argued. I will now describe these processes briefly so we can see how they operate and then how the dominant form of modern government – representative democracy – is subject to them.³¹

The first process was the enclosure of common lands in Europe, and the second enclosure through the dispossession of the embedded lifeways of indigenous peoples throughout the world by means of colonization. These processes involved genocide, slavery, displacement, reservations, residential schools and the discrediting of their embedded ways of knowing and being as ‘primitive’ and at the lowest possible level of cognitive and historical development.

The second set of processes consisted in the conversion of most of the earth into the private property of corporations by the global spread of Western corporate and property law and its violent enforcement by colonial authorities and, after decolonization, neocolonial military-political complexes. These processes reconceive the living earth as a limitless storehouse of commodifiable ‘natural resources’ disembedded from their interdependent participation in the fragile symbiotic networks and renewability cycles that sustain life for billions of years. These resources are re-embedded in the abstract, competitive relations of the global market system. The competition among corporations, driven by profit-seeking and exploitive technological development, is exhausting non-renewable resources and using up renewables more rapidly than they renew themselves naturally.³² The destruction that this system causes to the earth systems throughout the chains of dispossession, extraction, finance, commodification,

³⁰ Karl Polanyi, *Great Transformation: The Political and Economic Origins of Our Time*, 2nd ed. (Boston: Beacon Press, 2001); For an introduction to the vast, recent literature on Polanyi’s hypothesis, see Charles Dilworth, *Too Smart for Our Own Good: The Ecological Predicament of Humankind* (Cambridge: Cambridge University Press, 2012); ‘The Great Acceleration,’ International Geosphere-Biosphere Programme, www.igbp.net/globalchange/greatacceleration_4.1b8ae20512db692f2a680001630.html.

³¹ See James Tully, *Public Philosophy in a New Key*, vol. 2, *Imperialism and Civic Freedom* (Cambridge: Cambridge University Press, 2008); James Tully, ‘Rediscovering the World of Franz Boas: Anthropology, Equality/Diversity, and World Peace,’ in *Indigenous Visions: Rediscovering the World of Franz Boas*, ed. Ned Blackhawk and Isaiah Lorado Wilner (New Haven: Yale University Press, 2018), 111–46.

³² Michael T. Klare, *The Race for What’s Left: The Global Scramble for the World’s Last Resources* (New York: Picador, 2012).

production, consumption and waste disposal is treated as an externality for which the corporations are not responsible. They tend to resist regulation unless the costs are subsidized.

The third set of modernizing processes effect a similar transformation of human productive capacities. They disembed humans and their capacities to produce and consume from the informal, intersubjective, symbiotic, informal social relationships that sustain them, their families and their communities (social capital). They re-embed individual productive capacities into the abstract, competitive, and unequal relationships of the global labour market as commodities for sale to private or public corporations for a wage or salary. The corporations govern their employees non-democratically. Individuals and unions are constrained to compete for jobs with other workers near and far, as well as with automation, the unemployed and the precarious informal global economies of the poor. The degradation and destruction that these processes cause to the cultivation of cooperative, democratic working and socializing ethics and relationships of mutual aid that sustain human communities and their well-being are treated as another externality of modernization. Corporations are seldom held responsible for these effects, yet they function perversely to drive wages further down.³³

The fourth and more recent process is the emergence of the global age of surveillance capitalism with the Internet. Every aspect of the behaviour of individual users of the Internet is mined by large internet corporations, sold to other corporations, processed through algorithms and then employed to subtly influence and govern the future behaviour of users in almost every area of their lives in a post-truth age. As a result, users are disembedded from their ecosocial lifeworld and freely subject themselves to the world of cyberspace. Simultaneously, the political and military institutions of modern states also engage in the surveillance of their own citizens and the citizens and governments of other states. The damage that these algorithmic modes of governance, meme interpolation and alienation from the ecosocial lifeworld do to ecosocial, democratic self-formation through tough, critical, truth-seeking and accountable dialogues with differently situated fellow citizens here and now is unacknowledged or treated as another externality.³⁴

In short, the modern assemblage of systemic processes are extractive and exploitive rather than regenerative, linear rather than cyclical, externalizing rather than internalizing, and thus vicious and life-destroying rather than

³³ Joel Bakan, *The New Corporation: How 'Good' Corporations Are Bad for Democracy* (Toronto: Penguin Canada, 2020); Mike Davis, *Old Gods New Enigmas: Marx's Lost Theory* (London: Verso, 2020).

³⁴ Shoshana Zuboff, *The Age of Surveillance Capitalism: The Fight for a Human Future at the New Frontier of Power* (London: Profile Books, 2019); Edward Snowden, *Permanent Record* (New York: Metropolitan Books, 2019).

virtuous and sustainable. As Kimmerer, Joanna Macy, and others argue, it is a monstrous vicious system; a Windigo that super-preys on life's gift–gratitude–reciprocity relationships.³⁵ In these respects, it is the antithesis of cyclical, ecosocial economics and politics.³⁶

Modern Representative Government: The Great Democratic Disconnection and Deficit

As I would not be a slave, so I would not be a master. This expresses my idea of democracy. Whatever differs from this, to the extent of the difference, is no democracy.

Abraham Lincoln, 'Fragment on Democracy', August, 1858

The fifth systemic process of modernization is the spread of representative government around the world of modern states and international institutions as the mode of governance of this assemblage of systems. This process of 'democratization', as it is called, began in eighteenth-century Western Europe, spread to the non-Western world through colonization and decolonization, the Mandate System of the League of Nations, and is continued today under the auspices of the United Nations Constitutional Assistance Programs. Like the other processes, it is imposed on non-Western societies by violent means on the widely shared premise of modern political thought that authoritarian means are necessary and they lead 'less-developed' peoples up through stages of development to representative democracy, the rule of law, free markets, international institutions and perpetual peace.³⁷

The best 'democratic' argument for elected representative government to replace monarchy in the eighteenth century was presented by William Paine in *The Rights of Man* (1792):³⁸

Simple democracy was society governing itself without the aid of secondary means. By *ingrafting representation upon democracy* [italics added] we arrive at a system of government capable of embracing and confederating all the various interests and every extent of territory and population . . . It is on this system that the American government is

³⁵ Robin Wall Kimmerer, *Braiding Sweetgrass: Indigenous Wisdom, Scientific Knowledge, and the Teaching of Plants* (Minneapolis: Milkweed Editions, 2013), 303–80.

³⁶ Herman B. Daly and John B. Cobb Jr., *For the Common Good: Redirecting the Economy Toward Community, the Environment and a Sustainable Future* (Boston: Beacon Press, 1994); Lester R. Brown, *World on the Edge: How to Prevent Environmental and Economic Collapse* (New York: Norton, 2011). Brown argues that if the costs of repairing the social and ecological damage were internalized, the economic system as a whole would be unprofitable and collapse.

³⁷ Tully, *Public Philosophy*, vol. 2. For critical discussions of this interpretation, see Robert Nichols and Jakeet Singh, eds., *Freedom and Democracy in an Imperial Context* (London: Routledge, 2014).

³⁸ William Paine, *The Rights of Man*, ed. Gregory Claeys (Indianapolis: Hackett Publishing Company, 1992), 142–43.

founded. It is *representation ingrafted upon democracy* [italics added] . . . What Athens was in miniature, America will be in magnitude. The one was the wonder of the ancient world; the other is becoming the admiration and model of the present.

On this hopeful democratic view, representative governments would grow out of and extend thriving local democracies, just as a grafted branch extends an already living tree and its permaculture. It would thus solve the scale problem of size and population of governments in modern states without abandoning democracy. Unfortunately, as John Stuart Mill, Karl Marx and Peter Kropotkin pointed out fifty years later, this is not what happened. Instead of the people governing themselves, competing political parties campaigned and governed over the people, yet always in the name of the people. The proper name for ruler/ruled form of government should be demoarchy (rule over (arche) and in the name of the people by the elected party), not democracy (the self-government of the people themselves). Mill and Marx argued that it tends to be rule by the class that controls public opinion. Since the claim that the party which gains a majority or plurality of votes is governing for the people can be used to justify just about any legislation, Mill presented the classic liberal response that has become the global norm of legitimacy. The government has to be constrained by a constitution that places certain fundamental rights beyond democratic negotiation: that is, 'constitutional democracy' (or, more accurately, constitutional representative demoarchy).³⁹

This has had two consequences. The first is that the modern legal systems constitutionalized, or constitutionally protected, the constitutive features of the four vicious and unsustainable systemic processes of the previous section, thereby placing them beyond democratic negotiation. Second, the democratic participation of citizens is legalized as the 'civil' rights to participate within the institutions of the representative system: voting, campaigning, expressing opinions and deliberating within the official public spheres in hopes of influencing public policy and elected officials, and the right to civil disobedience if it is exercised with the objective of promoting constitutional democracy. In these two main ways, constitutional representative demoarchy is disconnected from, rather than 'ingrafted upon', participatory democracy.

In this respect, the establishment and eventual globalization of representative constitutional demoarchy as the primary meaning of 'democracy' and 'democratization' serves to legitimate the triumph of the elite republican model that the propertied authors of *The Federalist Papers* advanced *against* democracy, yet cleverly disguised under the name of democracy. They wrote:⁴⁰

'[A] pure democracy', by which I mean a society consisting of a small number of citizens, who assemble and administer the government in person, can admit of no cure for the

³⁹ John Stuart Mill, 'On Liberty', in *On Liberty and Other Essays*, ed. John Gray (Oxford: Oxford University Press, 1991), 6–10; Karl Marx and Friedrich Engels, *The Communist Manifesto* (Oxford: Oxford University Press, 1998), 4–5.

⁴⁰ Alexander Hamilton, James Madison, and John Jay, *The Federalist Papers* (New York: Penguin Books, 1961), 81, 82, 84.

mischiefs of faction . . . Hence it is that such democracies have ever been spectacles of turbulence and contention; have ever been found incompatible with personal security or the rights of property; and have in general been as short in their lives as they have been violent in their deaths . . . A republic, by which I mean a government in which the scheme of representation takes place, opens a different prospect and promises the cure for which we are seeking . . . Let us examine the points in which it varies from pure democracy, and we shall comprehend both the nature of the cure and the efficacy which it must derive from the Union . . . [In conclusion, a] rage for paper money, for an abolition of debts, for an equal division of property, or for any other improper or wicked project, will be less apt to pervade the whole body of the Union than a particular member of it [by means of representation and federation].

As the young Marx pointed out, and as we will see in the following section, participatory democracy did not disappear. Humans exercising powers of self-government with and for each other informally in everyday relationships and systems is the basis of all sustainable social life, as our increasingly divisive and anti-social age reminds us. These informal relations continue under any form of government. Constitutional representative democracy, like other forms of ruler/ruled constitutions, depends on and colonizes this unacknowledged democratic lifeworld, and, as noted, concentrates official political power in representative institutions, thereby weakening and disempowering local self-government.⁴¹ The reconceptualization of this form of government as ‘democracy’ and ‘democratization’ is one of the great conceptual transformations that accompanied and continues to legitimate modernization.⁴² Participatory democracy was renamed ‘radical democracy’, cooperativism, community-based organization and, by Kropotkin, ‘anarchy’ (that is, self-government without the division of the people into rulers and ruled).⁴³

The justification of representative democracy as ‘democratic’ is not participation, but, rather, the consent of the governed for the party that wins the majority or plurality of votes in elections, whether or not the individual votes for the winning party; or simply by the tacit consent of going along with the outcome without voting. The people are said to ‘delegate’ or ‘alienate’ their powers of self-government to the ruling party in elections. Yet, this too is a conceptual innovation. Voters do not delegate or alienate their powers of self-government to elected representatives. Rather, as Rousseau noted, they abnegate their exercise of them. They delegate or alienate to elected representatives the right to exercise political power-over them by means of legislation and enforcement through the rule of law.

⁴¹ Karl Marx, ‘Critique of Hegel’s Doctrine of the State,’ in *Karl Marx: Early Writings*, trans. Rodney Livingstone and Gregor Benton (London: Penguin Books, 1975), 86–90.

⁴² For the detailed history of this conceptual transformation, see Francis Dupuis-Déri, *Démocratie. Histoire politique d’un mot: Aux États-Unis et en France* (Québec: Lux Éditeur, 2013).

⁴³ See David Held, ‘Direct Democracy and the End of Politics,’ in *Models of Democracy*, 3rd ed. (Cambridge: Polity Press, 2006), 96–123.

Representatives rarely exercise the democratic powers with each other as free and equal co-governors by working ‘across the aisle’ with members of other parties. Rather, they legislate by means of majority votes over minority party members. Even within governing parties, power-over is concentrated further in presidencies, prime ministers, cabinets, whipping party members and various hierarchical offices. These are classic forms of power-over, not democratic power-with, which facilitate rather than foreclose the iron law of oligarchy.⁴⁴ Moreover, non-democratic, bureaucratic ministries, hierarchical public and private institutions and military-industrial-research-expertise complexes surround representative institutions. Furthermore, representatives are dependent on private corporations for campaign funding, jobs in their ridings and taxes, and subject to continual lobbying. They are thus constrained to act in accord with the linear economic development model or face defeat in the next election. Despite these manifestly non-democratic systems, these modern states are routinely called ‘democratic societies’. Finally, since World War II, representative governments and corporations have constructed a system of institutions of global governance and international law that can override domestic governments that attempt to change the unsustainable status quo.⁴⁵ As David Held concludes, ‘Representative democracy, accordingly, is democracy ‘made safe’ for the modern world and, particularly, for the modern capitalist economy’.⁴⁶

For these reasons, as David Held and his co-authors have shown, it is not surprising that state-centred representative governments and international institutions generate vicious, systemic gridlock or minor changes when actors attempt to address the sustainability crises through these channels.⁴⁷ It is the gridlock of systemic processes of democratic disconnection and deficit.⁴⁸

The fatal flaw of these demoarchic, power-over forms of government is that the governing parties do not have to listen to and work with the opposition parties or citizens who voted against them. They can simply impose their will, often with a patina of ‘consultation’ to give it the appearance of democratic legitimacy. This power-over position invariably comes with the presumption that they also have knowledge-over what is best for the demos. Modern political theory reinforces this presumption. Yet, the only way governors can learn what

⁴⁴ That is, the elite theorists of representative democracies and the radical critics of them over the last century are both correct.

⁴⁵ James Tully et al., ‘Introducing Global Integral Constitutionalism,’ *Global Constitutionalism: Human Rights, Democracy, Law* 5, no. 1 (2016): 1–15.

⁴⁶ David Held, *Democracy and the Global Order* (San Francisco: Stanford University Press, 1995), 70.

⁴⁷ Thomas Hale, David Held, and Kevin Young, *Gridlock: Why Global Cooperation Is Failing When We Need It Most* (Cambridge: Polity Press, 2013); Thomas Hale and David Held, *Beyond Gridlock* (Cambridge: Polity Press, 2017). Compare Jeanne Morefield, Chapter 7, this volume.

⁴⁸ For an exemplary analysis of disconnection and deficit, see Oliver Schmidtke, Chapter 4, this volume.

counts as ill-being, repair and sustainable well-being of the diverse, interdependent members and situations of the people is to enter into dialogues of mutual education and enlightenment with them as equals. They can then work up sustainable ways of cooperating, putting them into practice, reviewing and contesting them, and beginning the learning cycle again. This is the pragmatic public reasoning-with and exercising power-with of equal citizens and governors that participatory democracy enables and enacts in conjunction with responsive representative democracy.⁴⁹

Aristotle was among the first to articulate the unique, epistemic superiority of democracy in comparison with ruler/ruled forms of government:⁵⁰

For the many, of whom each individual is not a good man, when they meet together may be better than the few good, if regarded not individually but collectively, just as a feast to which many contribute is better than a dinner provided out of a single purse. For each individual among the many has a share of excellence and practical wisdom, and when they meet together, just as they become in a manner one man, who has many feet, and hands, and senses, so too with their character and thought. Hence, the many are better judges than a single man.

Leopold also pointed out the power-over flow of presumptive knowledge, not only over the demos but also over the natural world. It is ‘eventually self-defeating’. In addition, Davidson argued that power-over leads the holders to be ‘one-eyed’, voracious and self-destructive, rather than listening to, learning from and cooperating with their fellow citizens, human and more-than-human. Accordingly, the task today is to extend linguistic dialogues of mutual learning among ‘all affected’ humans to perceptual dialogues among humans and more-than-human lifeforms so we can learn their sustainability conditions. These dialogues are taking place among Indigenous knowledge holders, ecological and social scientists, stakeholders, government officials and many other participants.⁵¹ These are examples of democratic Gaian ‘joining hands’ – of public reasoning and acting together. It is to these practices of regeneration that we now turn.

RECONNECTING AND ANIMATING GAIA DEMOCRACIES BY BEING THE CHANGE

The major obstacle to change is that, as subjects of this assemblage of vicious systems, we are socialized into thinking and acting in accord with its

⁴⁹ James Tully, *Public Philosophy in a New Key*, vol. 1, *Democracy and Civic Freedom* (Cambridge: Cambridge University Press, 2008), 291–316.

⁵⁰ Aristotle, *The Politics and the Constitution of Athens*, ed. Stephen Everson (Cambridge: Cambridge University Press, 1996), 76, 1281a40–b7.

⁵¹ For the practice of a human-nature perceptual dialogue, see David Abram, *The Spell of the Sensuous* (New York: Vintage, 1996); Harding, *Animate Earth*; Turner, ed., *Plants, Peoples, and Places*; Borrows, ‘Earth-Bound’, 49–82; Eduardo Kohn, *How Trees Think: Towards an Anthropology Beyond the Human* (Berkeley: University of California Press, 2013).

modernizing worldview and corresponding technical languages of veridiction. Yet, these languages misdescribe, and so cause us to misperceive, its undemocratic and unsustainable relationships. There have been three types of attempts to transform the systems from within. The first was violent revolution during decolonization.⁵² The second comprises attempts to gain institutional political power by various progressive parties and impose reforms from above. This approach is moderately successful in some cases, yet also subject to roll-back when it threatens the status quo.⁵³ The third consists of attempts to democratize representative democracies by exercising the institutional civil rights of participation within them and advancing ecosocial agendas. This way has been the most successful, yet it too runs up against limits of various kinds. But as long as we remain within these vicious systems, we will tend to either deny or discount the crises, or, if we recognize them and try to respond from within, our reforms are limited to the problem-solving techniques within the systems.

Gaia democracy offers another way. It is the way of being the change, as in ecological succession. We have seen examples in the two Gaia democracies in the previous sections. It rests on the premise that the means themselves must be ecosocial and democratic with all citizens-governors of the unjust relationships humans inhabit if they are to bring about a sustainable ecosocial, democratic future. As Laden, Owen and Thomasson illustrate in their chapters (1, 2, and 3, respectively), the democratic ‘way’ is crafted to listen to and co-sustain all affected. The autotelic character of means also explains why non-democratic means reproduce, rather than transform, the vicious status quo.

As Gaia citizens begin to be the change here and now by practicing ecosocial democracy in their daily lives, they, *eo ipso*, begin to free themselves and their perceptions from the vicious systems. They begin to perceive the larger, interdependent living ecosocial ecological world in which we live, breath and have our being. Harding describes examples of this kind of self-transformation by famous ecologists.⁵⁴ Macy and Stephanie Kaza show us how we can begin to do this in our own lives.⁵⁵ One of the best guidebooks is *Our Ecological Footprint* by Mathias Wackernagel and William Rees, first published in 1995.⁵⁶ It shows readers how to calculate the effect of every footprint they

⁵² Adom Getachew, *Worldmaking After Empire: The Rise and Fall of Self-Determination* (Princeton: Princeton University Press, 2019).

⁵³ Tarik Kochi, ‘The End of Global Constitutionalism and Rise of Anti-Democratic Politics,’ *Global Society* 34, no. 4 (2020): 487–507, <http://doi.org/10.1080/13600826.2020.1749037>.

⁵⁴ Harding, *Animate Earth*, 46–67.

⁵⁵ Joanna Macy and Chris Johnstone, *Active Hope: How to Face the Mess We’re in Without Going Crazy* (Novato, CA: New World Library, 2012); Stephanie Kaza, *Mindfully Green: A Personal and Spiritual Guide to Whole Earth Thinking* (Boston: Shambhala, 2008).

⁵⁶ Mathis Wackernagel, *Our Ecological Footprint: Reducing Human Impact on the Earth* (Gabriola Island, BC: New Society Press, 1996).

take in and on the environment and how to change it to reduce their impact on the living earth to a sustainable level. To be transformative, these ecological practices have to be updated to include and integrate our ecosocial and democratic footsteps with and for all interdependent partners.⁵⁷ In this careful way, citizens can repair the damage that the vicious systems cause as they go along – the regeneration of a local and global Gaia democracies permaculture by Gaia democratic means.

Millions of people are engaged apprentices in these kinds of practices and learning by trial and error. A central feature of this way of regeneration is that there is no privileged position or actor. It is a way of being in communities of practice whenever and wherever we find ourselves, in every step, here and now. Whether one is involved in producing, consuming, trading, lawmaking, government, teaching, healthcare, protesting, boycotting, volunteering, Indigenous-settler partnerships, ‘democratize work’, and so on, there is the possibility of everyday Gaian democratization.⁵⁸ To be genuinely democratizing, these practices treat all differently situated and affected members of the interdependent ecosocial relationships at issue as free and equal co-citizens and co-governors, as a matter of democratic justice. That is, democratizing practices are, *eo ipso*, decolonizing practices. They bring to light, contest and decolonize the power-over relationships of race, Indigeneity, class, gender, sexual orientation, ableism and global north and south inequality as they decolonize power-over relationships to the living earth.⁵⁹ This volume provides many examples.

The first step is to cultivate ecosocial democratic ethics in communities of practice of various kinds. Gandhians call these ‘constructive programs’, Indigenous peoples ‘land-based resurgence’, African-Americans ‘beloved communities’, engaged Buddhists ‘sanghas’, farmers ‘food sovereignty’, and other community-based Gaia democracies. They involve ecosocial democratic economics, technologies, citizen-governance and participatory modes of representation and networking. As citizens engage in these activities around the world, they withdraw from and non-cooperate with the unsustainable systems that these replace or transform. They cultivate a cyclical and sustainable countermodernity.⁶⁰

These ways of ecosocial transition build on the informal, democratic social relationships of mutual aid among humans that continue to exist even in the

⁵⁷ See, for example, Timothy Morton, *Being Ecological* (New York: MIT Press, 2018); Kelly Anne Patricia Aguirre Turner, ‘Re-Storying Political Theory: Indigenous Resurgence, Idle No More, and Colonial Apprehension’ (unpublished PhD thesis, University of Victoria, 2019).

⁵⁸ See, for example, ‘Work, Democratize, Decommodify, Remediate,’ *Democratizing Work*, <https://democratizingwork.org>.

⁵⁹ See Monika Kirloskar-Steinbach, ed., *Dialogue and Decolonization* (Bloomington, IN: Indiana University Press, forthcoming).

⁶⁰ See, for example, David Hardiman, *Gandhi in His Times and Ours: The Global Legacy of His Ideas* (New York: Columbia University Press, 2003); Forman, Chapter 8 and Nelems, Chapter 9, this volume. For other examples, see note 2, this chapter.

most ruthlessly competitive institutions and vicious situations of natural disasters, famine, migration and war.⁶¹ They are the basis of sociality. As Nelems explains in her chapter, we do not always perceive these informal social relationships from within the competitive and divisive social systems we inhabit. Yet, when a crisis arises, such as the COVID 19 pandemic, they appear and enable humans to survive.

Another necessary step is for participatory democrats to join hands and work democratically with citizens who are trying to democratize the institutions of representative government along Gaian lines from within, yet without subordination of the former to the latter. This is crucial because, in homage to Paine, Kimmerer and Abraham Lincoln in the previous section, their unique kinds of joining hands can ‘graft’ and ‘braid’ together participatory and representative democracies, making both more democratic in Lincoln’s sense. Sustainable modes of participatory democracy are the permaculture of healthy representative democracy. They ensure that representative governments ‘represent’ democratic peoples (*demos*). Their interdependent braids mutually empower and enhance both partners.⁶² In his concluding and integrative chapter, Ouziel provides a survey of the ways of joining hands illustrated in all the chapters of this volume. These ecosocial democratic connections and networks among all five families of democracy are also conduits of mutual education in democratic diversity, as Webber illustrates in Chapter 15.

As these communities of practice grow, they become the democratic basis of and for practices of nonviolent civic contestation, negotiation, conflict resolution and reconciliation (*Satyagraha*). The chapters by Swain (13) and Henderson (14) on Indigenous-settler joining hands, Forman on ‘unwalling citizenship’ (8), Celikates on ‘democratizing revolution’ (10), and Wiener on ‘norm contestation’ (17) are examples of this distinctive mode of speaking truth to power on the one hand and offering to join hands and negotiate on the other, as Barbara Deming famously described it.⁶³ These democratic contestations, negotiations and reconciliations can lead, step by step, to multiple tipping points and the gradual replacement or transformation of vicious social systems by or into virtuous and sustainable systems.⁶⁴

⁶¹ Rebeca Solnit, *A Paradise Built in Hell: The Extraordinary Communities that Arise in Disaster* (New York: Penguin, 2009).

⁶² Forman, Chapter 8, this volume; Pablo Ouziel, *Democracy Here and Now: The Exemplary Case of Spain* (Toronto: University of Toronto Press, 2022); James Tully, *On Global Citizenship: James Tully in Dialogue* (London: Bloomsbury, 2014), 84–100.

⁶³ Barbara Deming, ‘On Revolution and Equilibrium’, in *Revolution and Equilibrium* (New York: Grossman Publishers, 1971), 194–221.

⁶⁴ For nonviolent civil resistance in response to the sustainability crises, see Daniel Hunter, *Climate Resistance Handbook* (Boston: Daniel Hunter and 350.org, 2019), <https://trainings.350.org/climate-resistance-handbook>. For contestation at the international level, see Wiener, Chapter 17 in this volume.

The local/global integration of all these Gaian democratic practices not only reconnects them democratically with each other and overcomes the democratic deficit. It also reconnects them with the animacy of the Gaian lifeworld, *anima mundi*, the greatest power on earth. Gaia animates them in reciprocity and they co-regenerate together.⁶⁵

⁶⁵ Richard Bartlett Gregg, *The Power of Nonviolence*, ed. James Tully (Cambridge: Cambridge University Press, 2018), was one of the first researcher-practitioners to present this whole argument in a comprehensive form. Gregg published the first edition in 1934, after living and working with Gandhi, and then published revised versions in 1944 and 1959. The pragmatic philosophy of ecosocial succession as the replacement for top-down reform, violent revolution, and war was introduced in new chapters in the 1944 edition, in the course of six years of correspondence with Gandhi.