SETTING COURSE FOR AN ECOLOGICAL CIVILIZATION

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The three horizons

You’re on a long journey, walking through rocky terrain. You’d better keep your gaze down, focusing on the next couple of footsteps to make sure you don’t trip. Right? But there are no signposts on this journey, so every now and then you look up and check where you’re heading. So far, so good. But your destination is still a long distance away—so far, in fact, that it’s beyond the reach of the furthest horizon you can see. Are you going in the right direction? What happens if you come across an impassable natural barrier? Wouldn’t it be valuable if you had in your mind’s eye what your eventual destination looked like? Wouldn’t it be helpful if you knew roughly what direction it was in, so you could set your course accordingly and avoid following pathways that, attractive as they might look, lead you in the wrong direction?

There’s a powerful planning tool known as the Three Horizons Model, which uses this analogy to shed light on how various strategies and tactics fit into the ultimate objective that an enterprise desires. It was developed originally by McKinsey & Company (2009) for business strategy but applies equally well to social and political planning. The first horizon relates to short-term planning—essential for daily and monthly accomplishments, but only if the right direction has already been set. The second horizon extends beyond incremental thinking, potentially disrupting conventional practices to achieve greater impact while remaining in the same ballpark. The third horizon refers to thinking that’s outside the ballpark, shifting the entire paradigm and thus permitting possibilities that could never have been imagined within the first two horizons (Wahl, 2016, pp. 53–62).

The Three Horizons model is invaluable when applied to the global cultural and economic situation the world faces today. There is no end to debates about first horizon issues; meanwhile, occasional powerful ideas reverberate through the system, shattering business as usual and bringing the second horizon into view. But there is very little third horizon thinking—so much so that most people are barely aware, if at all, that a third horizon could even exist.

Yet, there has never been a greater need to visualize the third horizon that could be available and raise public awareness of the drastic need for society to change direction if humanity is to avoid the precipice to which our civilization’s current trajectory is leading. The climate emergency is the most obvious cause for deep concern. What were once ominous warnings of future climate shocks wrought by wildfires, floods, and droughts have now become a staple of the daily...
news, even while governments are failing to meet their own emissions pledged that are themselves inadequate to avoid catastrophic global heating this century. We are rapidly approaching—if we haven’t already passed—climate tipping points with reinforcing feedback loops that would lead to an unrecognizable and terrifying world. Increasingly, respected Earth scientists are warning, not just about the devastating effects of climate breakdown on our daily lives but about the potential collapse of civilization itself unless we drastically change course (Ahmed, 2019; Moses, 2020).

However, terrifying as it is, the climate emergency is merely a symptom of a greater problem: the ecological devastation our civilization is wreaking on the living systems of the Earth. Even if the climate crisis were somehow brought under control, our current growth-oriented economic juggernaut will bring us face-to-face with a slew of further existential threats in future decades. We’re rapidly decimating the Earth’s forests, animals, insects, fish, freshwater—even the topsoil we need to grow our crops. We’ve already transgressed four of the nine planetary boundaries that define humanity’s safe operating space, and yet global gross domestic product (GDP) is expected to triple by 2060, with inescapable calamitous consequences (see Figure 22.1:

**Figure 22.1** Rockström et al. (2009). A Safe Operating Space for Humanity

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- Chemical pollution (not yet sufficiently quantified)
- Climate crisis
- Ocean acidification
- Particle pollution of the atmosphere (not yet sufficiently quantified)
- Ozone depletion
- Nitrogen cycle
- Phosphorus cycle
- Biodiversity loss
- Deforestation and other land use changes
- Freshwater use

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Rockström et al., 2009). In 2017, over 15,000 scientists from 184 countries issued an ominous warning to humanity that time is running out: “soon it will be too late,” they wrote, “to shift course away from our failing trajectory” (Ripple et al., 2017, p. 1028).

As we careen on an accelerating path to disaster, first horizon thinking can’t redirect us, and second horizon thinking risks luring us in the wrong direction, proffering false solutions that maintain our trajectory toward the precipice even while they temporarily make the ride more amenable. Within the context of our climate emergency, the first horizon incorporates essential but incremental steps such as investing in renewable energy, eliminating subsidies for fossil fuel companies, or strengthening regulations covering pollution. While all these initiatives are critically important, none will change the course our society is taking. Second horizon thinking can appear seductively attractive: the all-electric Tesla has spectacularly disrupted the conventional automobile industry; carbon capture and storage has the potential to turn energy production into a carbon-neutral, or even negative, enterprise. But crucially, these disruptive technologies continue to reinforce the same paradigm that has caused our current crisis in the first place: the relentless pursuit of economic growth within the context of a globalized capitalist system that rewards extractive and exploitative behavior above all else.

**The third horizon: An ecological civilization**

What might a third horizon look like? A third horizon for humanity would envision a civilization built on an entirely different foundation than the one that undergirds our current society. It offers the possibility for a new era that could be defined, at its deepest level, not merely by political or economic systems, but by a transformation in the way we make sense of the world, and a concomitant revolution in our predominant values.

Our current civilization is built on a worldview formed, in its modern version, mostly by a small group of men in 17th-century Europe and further developed in the centuries that followed by other mostly European men. Distilled to its essence, this worldview comes down to a few basic building blocks: Humans are selfish individuals. All creatures are selfish—in fact, selfish genes are the driving force of evolution. Nature is just a very complex machine, and human ingenuity has, for the most part, figured out how it works. The modern world, we are told, is the spectacular result of technology enabled by the market forces of capitalism. This worldview underlies a value system that rewards ruthless exploitation, viewing other people and the natural world as nothing other than a collection of resources for relentless extraction of profit.

The dominant worldview is not just recklessly destructive—it is based on a series of flawed assumptions that have been superseded by modern scientific findings. The discoveries of modern science point to the same deep wisdom that Indigenous and other non-western traditions have expressed for millennia—the deep interconnectedness between all human beings, and between humanity and the natural world (Lent, 2021).

A third horizon paradigm for humanity would arise from a fundamentally different worldview that reflects the interrelatedness of all living beings, recognizing that humanity’s flourishing relies ultimately on a healthy, vibrant Earth. It would entail a transformation of our civilization from one based on wealth accumulation to one that is life-affirming: an ecological civilization.

Humans have been around for less than 0.01 percent of life’s great unfolding on Earth, and yet in this tiny sliver of time we’ve managed to destroy more than 80 percent of wild mammals and about half the biomass of trees and plants (Carrington, 2018). We’re currently well on the way to causing the sixth great extinction of species in Earth’s history—the first driven by the actions of a single species.
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In contrast, ecosystems can, without human disruption, thrive in rich abundance for millions of years, remaining resilient in the face of adversity. Over eons, life has gone from strength to strength, overcoming occasional serious setbacks to build diversity and rich profusion in virtually every nook and cranny of the planet. Clearly, there is much to learn from nature’s wisdom about how to organize ourselves. Can we do so before it’s too late?

This is the fundamental idea underlying an ecological civilization: using nature’s own design principles to reimagine the basis of our civilization. Changing our civilization’s underlying operating system to one that naturally leads to life-affirming policies and practices rather than rampant extraction and devastation (Capra & Jakosen, 2017).

An ecological civilization is both a new and ancient idea. While the notion of structuring human society on an ecological basis might seem radical, Indigenous peoples have organized themselves from time immemorial on life-affirming principles. When Lakota communities invoke Mitakuye Oyasin (“All Our Relations”) in ceremony, they are referring not just to themselves but to all sentient beings. Buddhist, Taoist, and other religious traditions have based much of their spiritual wisdom on the recognition of the deep interconnectedness of all things. And in modern times, a common thread linking progressive groups around the world is the commitment to a society that works for the benefit of life rather than against it.¹

Principles of an ecological civilization

Living systems are characterized by both competition and cooperation. However, the major evolutionary transitions that brought life to its current state of abundance were all the results of dramatic increases in cooperation. The key to each of these evolutionary steps—and to the effective functioning of all ecosystems—is mutually beneficial symbiosis: a relationship between two parties where each contributes something the other lacks, and both gain as a result. With symbiosis, there is no zero-sum game: the contributions of each party create a whole that is greater than the sum of its parts.

Whenever you take a walk in the woods, eat a meal, or dip in the ocean, you’re experiencing the miracle of nature’s symbiosis. Plants transform sunlight into chemical energy that provides food for other creatures, whose waste then fertilizes the soil the plants rely on. Underground fungal networks contribute essential chemicals to trees in return for the carbon they can’t make for themselves. Pollinators fertilize plants, which produce fruit and seeds that nourish animals as they carry them to new locations. In your own gut, trillions of bacteria receive nutrition from the food you enjoy while reciprocating by producing enzymes you need for digestion.

In human society, symbiosis translates into foundational principles of fairness and justice, ensuring that the efforts and skills people contribute to society are rewarded equitably. Relationships between workers and employers, producers and consumers, humans and animals would thus be based on each party gaining in value rather than one group exploiting the other.

Because of symbiosis, ecosystems can sustain themselves almost indefinitely. Energy from the sun flows seamlessly to all the constituent parts. The waste of one organism becomes the sustenance of another. Nature produces a circular flow where nothing is squandered. Likewise, an ecological civilization, in contrast to our current society built on extracting resources and accumulating waste, would comprise a circular economy with efficient reuse of waste products embedded into processes from the outset.

Nature uses a fractal design with similar patterns repeating themselves at different scales. Fractals are everywhere in nature—you see them in the patterns of tree branches, coastlines, cloud formations, and lung brachia. Ecologies are themselves fractal: the underlying principles
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of self-organization that constitute each cell are like those of the organism of which it’s a part, which are similar to those of its species, of the ecosystem in which it’s embedded, and of the entire system of the living Earth. In all cases, the health of the system as a whole requires the flourishing of each part. Each living system is interdependent on the vitality of all the other systems.

An ecological civilization would, similarly, be based on the crucial principle of fractal flourishing: the well-being of each person is fractally related to the health of the larger world. Individual health relies on societal health, which relies in turn on the health of the ecosystem in which it’s embedded. Accordingly, from the ground up, it would foster individual dignity, providing the conditions for everyone to live in safety and self-determination, with universal access to adequate housing, competent healthcare, and quality education.

The complex interconnection of different organisms in a fractal, symbiotic network leads to another foundational principle of nature: harmony. Harmony doesn’t mean bland agreement. On the contrary, it arises when different elements within a system express their own needs so that the system as a whole is enriched. In the fractal design of an ecosystem, harmony arises not through homogeneity but through each organism contributing to the whole by pursuing its own unique path of sustainable well-being. Accordingly, an ecological civilization would celebrate diversity, recognizing that its overall health depends on different groups—self-defined by ethnicity, gender, or any other delineation—developing their own unique gifts to the greatest extent possible. It would be built on the axiom that a system’s full potential can only be realized when it is truly integrated—the state of unity with differentiation, wherein the flourishing of each constituent part generates the well-being of the larger whole (Magdoff, 2012).

In a natural ecology, the type of exponential growth that characterizes our global economy could only occur if other variables were out of balance and would inevitably lead to the catastrophic collapse of that population. The principle of balance would accordingly be crucial to an ecological civilization. There would be a balance between a system’s efficiency and its resilience; competition would be balanced by collaboration; disparities in income and wealth would remain within much narrower bands and would fairly reflect the contributions people make to society. And crucially, growth would become just one part of a natural life cycle, slowing down once it reaches its healthy limits—leading to a steady-state, self-sustaining economy designed for well-being rather than consumption (Fullerton, 2015).

Above all, an ecological civilization would be based on an all-encompassing symbiosis between human society and the natural world. Human activity would be organized, not merely to avoid harm to the living Earth, but to actively regenerate and sustain its health. As such, an ecological civilization could set humanity and nonhuman nature on a course for an indefinitely prolonged period of mutual flourishing—one that has been called the Symbiocene (Albrecht, 2015; Grinspoon, 2016).

An ecological civilization in practice

We live our daily lives within the first horizon, so we know its terrain fairly well. We can also readily imagine second horizon scenarios—a society built entirely on renewable energy, for example—even though we might not be sure of all the details. Envisioning the third horizon, however, is by definition much more difficult. It might seem almost impossible to picture the specifics of a world based on life-affirming principles—but it’s been made easier by the work of pioneering visionaries who have already begun blazing a trail toward this different kind of civilization.
Setting course for an ecological civilization

The overriding objective of an ecological civilization would be to create the conditions for all humans to flourish as part of a thriving living Earth. Currently, the success of political leaders is assessed largely by how much they increase their nation’s GDP, which merely measures the rate at which society transforms nature and human activities into the monetary economy, regardless of the ensuing quality of life. A life-affirming society would, instead, emphasize growth in well-being, using measures like the “Gross National Happiness” index established by the state of Bhutan, which considers such qualities as spiritual well-being, health, and biodiversity.

For over a century, most economic thinkers have recognized only two domains of economic activity: markets and government. The great political divide between capitalism and communism was structured accordingly, and even today the debate continues along similar lines. An ecological civilization would incorporate government spending and markets but—as laid out by visionary economist Kate Raworth (2017)—would add two critical realms to this framework: households and the commons.

In particular, the commons would become a central part of economic activity. Historically, the commons referred specifically to shared land that peasants accessed to graze their livestock or grow crops. But in a broader context, the commons refer to any source of sustenance and well-being that has not yet been appropriated either by the state or private ownership: the air, water, sunshine, and even human creations like language, cultural traditions, and scientific knowledge. It is virtually ignored in most economic discussions because, like household work, it doesn’t fit into the classic model of the economy. But the global commons belongs to all of us, and in an ecological civilization, it would once again take its rightful place as a major provider for human welfare.

The overwhelming proportion of wealth available to modern humans is the result of the cumulative ingenuity and industriousness of prior generations going back to earliest times. Once we realize the vast benefits of the commons bequeathed to us by our ancestors, it transforms our conception of wealth and value. Contrary to the widespread view that an entrepreneur who becomes a billionaire deserves his wealth, the reality is that whatever value he created is a pittance compared to the immense bank of prior knowledge and social practices—the commonwealth—that he took from. An ecological civilization, recognizing this, would fairly reward entrepreneurial activity but severely curtail the right of anyone to accumulate multiple billions of dollars in wealth, no matter what their accomplishments.

Conversely, it is the moral birthright of every human to share in the vast commonwealth bestowed on us. This could effectively be achieved through a program of unconditional monthly cash disbursements to every person on the planet, creating a foundation for the dignity and security required for society’s fractal flourishing. Research has shown repeatedly that such programs—known as universal basic income (UBI)—are remarkably effective in improving quality of life in communities (Hasdell, 2020; Whitney, 2021). Programs consistently report reduction in crime, child mortality, malnutrition, truancy, teenage pregnancy, and alcohol consumption, along with increases in health, gender equality, school performance—and even entrepreneurial activity. Work is not something people try to avoid; on the contrary, purposive work is an integral part of human flourishing. Liberated by UBI from the daily necessity to sell their labor for survival, people would reinvest their time in crucial sectors of the economy—in households and commons—that naturally lead to life-affirming activity (Hasdell, 2020; Whitney, 2021).

The transnational corporations that currently dominate every aspect of global society would be fundamentally reorganized and made accountable to the communities they purportedly serve. Corporations above a certain size would only be permitted to operate with
charters that required them to optimize social and environmental well-being along with shareholder returns. Currently, these “triple bottom line” charters are voluntary, and very few large corporations adopt them. If, however, they were compulsory and strictly enforced, it would immediately transform the intrinsic character of corporations, causing them to work for the benefit of humanity and the living Earth rather than for their demise.

The life-affirming principles of an ecological civilization would lead to profoundly beneficial transformations throughout virtually every aspect of society. In place of vast homogenized monocrops of industrial agriculture, food would be grown worldwide based on principles of regenerative agriculture, leading to greater crop biodiversity, improved water and carbon efficiency, and the virtual elimination of synthetic fertilizer. Manufacturing would prioritize circular flows with efficient reuse of waste products built into processes from the outset, and locally owned cooperatives would become the default organizational structure. Technological innovation would still be encouraged but would be prized for its effectiveness in enhancing the vitality of living systems rather than minting billionaires. The driving principle of technology would shift from “conquering nature” to investigating how to “tend nature”—applying ingenuity to create conditions leading to symbiotic flourishing of humans and the living Earth.

Cities would be redesigned on ecological principles, with community gardens on every available piece of land, essential services always available within a 20-minute walk, and cars banned from city centers. The local community would be the basic building block of society, with face-to-face interaction regaining ascendance as a crucial part of human flourishing. Education would be re-envisioned and its goal transformed from preparing students for the corporate marketplace to cultivating the wisdom, discernment, and emotional maturity required for students to fulfill their life’s purpose as valued members of society.

Local community life would be enriched by the global reach of the internet. Online networks with scale, such as Facebook, would be turned over to the commons so that rather than manipulating users to maximize advertising dollars, the internet could become primarily a vehicle for humanity to further develop a planetary consciousness. Cosmopolitanism—an ancient Greek concept that literally means “being a citizen of the world”—would be the defining character of a global identity that would celebrate diversity between cultures while recognizing the deep interdependence that binds all people into a single moral community with a shared destiny.

Governance would be transformed to a polycentric model, where local, regional, and global decisions are made at the levels where their effects are felt most. While most decision-making would devolve to the lowest feasible level, a stronger global governance would enforce rules on planetary-wide issues such as contending with the climate emergency and halting the Sixth Extinction. A worldwide Rights of Nature declaration would put the natural world on the same legal standing as humanity, with personhood given to ecosystems and high-functioning mammals, and the crime of ecocide—the destruction of ecosystems—prosecuted by a court with global jurisdiction.

Pathways to the third horizon

Clearly, the terrain of an ecological civilization lies well beyond our current horizon. So much so that it might seem at first sight like a utopian vision—attractive but utterly unattainable. However, this is not necessarily the case. In fact, a profusion of groups is already laying the groundwork for pathways that lead to virtually all the components of the life-affirming civilization that lies on the other side of the horizon.
In the United States, the visionary Climate Justice Alliance has laid out guidelines for a just transition from an extractive to a regenerative economy that incorporates deep democracy with ecological and societal well-being. A network of more than 70 grassroots and frontline movements, the alliance works collectively for a just transition toward food sovereignty, energy democracy, and ecological regeneration (Climate Justice Alliance, 2020).

In Bolivia and Ecuador, traditional ecological principles of *buen vivir* and *sumak kawsay* ("good living") are written into the constitution. While mechanisms for enforcement still need considerable strengthening, these principles establish a powerful alternative to extractive practices, offering a legal and ethical platform for legislation based on harmony—both with nature, and between humans (Gudynas, 2011).

In Europe, large-scale thriving cooperatives, such as the Mondragon Cooperative in Spain, demonstrate that it’s possible for companies to prosper without utilizing a shareholder-based profit model. With more than a 100 businesses and 80,000 worker-owners producing a wide range of industrial and consumer goods, Mondragon proves that it’s possible to achieve business success while maintaining a people-focused, shared community of life-affirming values (Kelly, 2017).

Meanwhile, a new ecological worldview is spreading globally throughout cultural and religious institutions, establishing common ground with Indigenous traditions that have sustained their knowledge worldwide for millennia. The core principles of an ecological civilization have already been set out in the Earth Charter—an ethical framework launched in The Hague in 2000 and endorsed by more than 6,000 organizations worldwide, including many governments (History, n.d.). In China, leading thinkers espouse a New Confucianism, calling for a cosmopolitan, planetary-wide ecological approach to reintegrate humanity with nature (He, 2018). In 2015, Pope Francis shook the Catholic establishment by issuing his encyclical, *Laudato Si’*, a masterpiece of ecological philosophy that demonstrates the deep interconnectedness of all life and calls for a rejection of the individualist, neoliberal paradigm (Pope Francis, 2015).

Economists, scientists, and policymakers, recognizing the moral bankruptcy of the current economic model, are pooling resources to offer alternative frameworks. The Wellbeing Economy Alliance is an international collaboration of changemakers working to transform our economic system to one that promotes human and ecological well-being. The Global Commons Alliance is similarly developing an international platform for regenerating the Earth’s natural systems. Organizations such as the Next System Project and the Global Citizens Initiative are laying down parameters for the political, economic, and social organization of an ecological civilization, and the P2P Foundation is building a commons-based infrastructure for societal change. Around the world, an international movement of transition towns is transforming communities from the grassroots up by nurturing a caring culture, reimagining ways to meet local needs, and crowdsourcing solutions.

Most importantly, a people’s movement for life-affirming change is spreading globally. Led by young climate activists like Greta Thunberg, Vanessa Nakate, Mari Copeny, and many others, millions of schoolchildren worldwide are rousing their parents’ generation from their slumber. A month after Extinction Rebellion demonstrators closed down Central London in 2019, the UK Parliament announced a “climate emergency,” which has now been declared by over 2,000 local and national jurisdictions worldwide, representing over a billion citizens. Meanwhile, the Stop Ecocide campaign to establish ecocide as a crime prosecutable under international law is making important strides, gaining serious consideration at the parliamentary level in France and Sweden, with a panel of legal experts convened to draft its definition.

Is this enough? When we consider the immensity of the transformation needed, the odds look daunting—but none can say whether it’s impossible. The trajectory of our current
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civilization is heading directly for a precipice. The closer we get to the edge, the clearer it will become—even for those whose gaze is fixed on the first and second horizons—that we need to change course.

As the world system begins to unravel on account of its internal failings, the strands that kept the old system tightly interconnected also get loosened. Every year that we veer closer to catastrophe—as greater climate-related disasters rear up, as the outrages of racial and economic injustice become even more egregious, and as life for most people becomes increasingly intolerable—the old story loses its hold on the collective consciousness of humanity. Waves of young people are looking for a new worldview—one that makes sense of the current unraveling, one that offers them a future they can believe in. People who lived through the Industrial Revolution had no name for the changes they were undergoing—it was a century before it received its title. Perhaps the pathbreaking journey to an ecological civilization is already underway, but we can’t see it because we’re in the middle of it (Hawken, 2007).

Like an immune system protecting its host from toxins, a growing network of other caring, compassionate humans are devoting their energies to life-affirming activities. It’s a bold idea to transform the very basis of our civilization, but when the alternative is unthinkable, a vision of a flourishing future shines a light of hope that can become a self-fulfilling reality. An ecological civilization will only emerge when enough people around the world decide they no longer want to allow humanity to hurtle off the precipice—and work together collaboratively to shift the direction of our species. Each of us has a part to play in setting a course for that distant horizon and bequeathing a vibrant Earth to future generations.

Note

1 Many of the underlying principles and values for an ecological civilization may be found in the traditions of Indigenous communities throughout the world. In China, the concept of “ecological civilization” has been used as a platform by the Chinese Communist Party but so far has not fully materialized in major policy priorities. In modern western society, the idea of an ecological civilization has been developed among a select group of visionary thinkers over decades and is gaining increased traction. Early pioneers in developing the philosophical framework for a life-affirming civilization were Freya Mathews in The Ecological Self (1991) and John Cobb Jr., who integrated this idea with the process philosophy of Alfred North Whitehead. More recently, leading thinkers on the topic, in addition to Mathews and Cobb, include Eileen Crist, Arran Gare, Fred Magdoff, David Korten, and John Fullerton. The Institute for Ecological Civilization, based in California, works to disseminate these ideas and helped publish a recent book on the topic titled. What Is Ecological Civilization? Crisis, Hope, and the Future of the Planet (Clayton & Schwartz, 2019). I am indebted to each of the aforementioned thinkers, among others, for my own description of the vision of an ecological civilization.

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