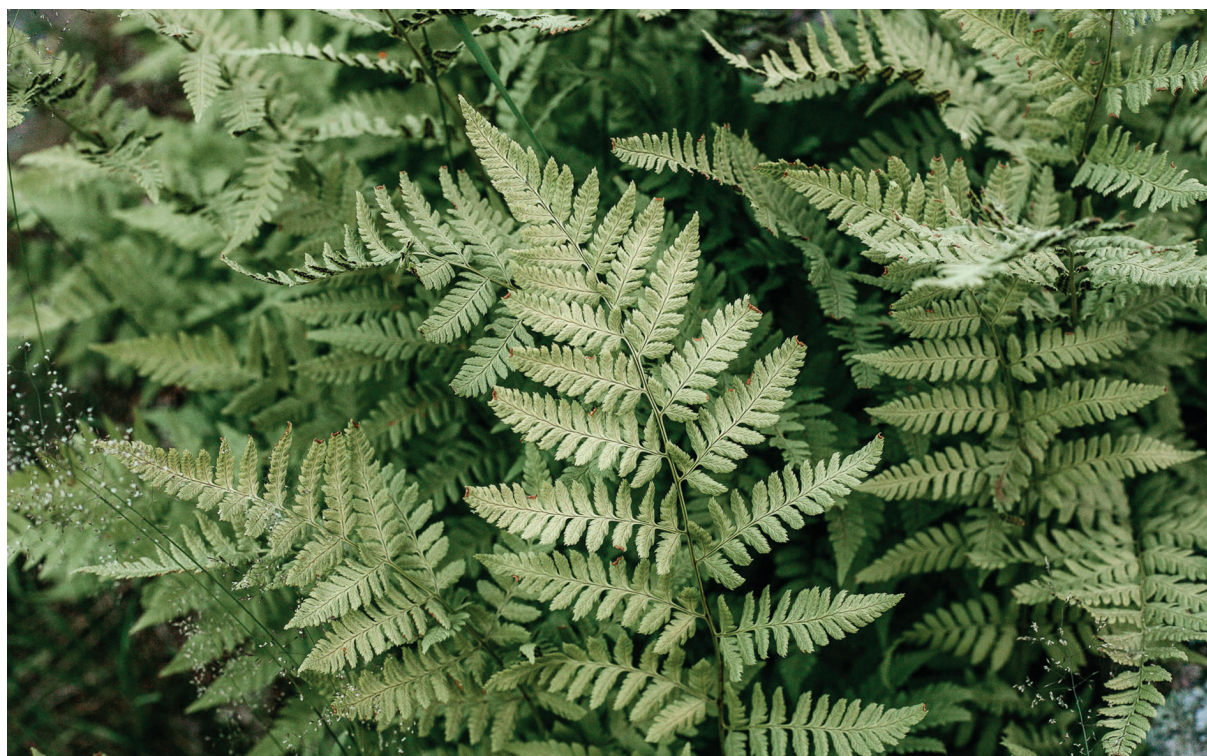


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ON THE WAY TO ECOLOGICAL CIVILIZATION

The global environmental crisis has brought into focus the critical state of our planet and of humanity. Environmental problems are integrally related to, while at the same time aggravating, economic, social and political problems, demonstrating the fragility of the existing world order. As a result of the globalization of the market under the banner of neoliberalism, local problems now have global impacts. These problems did not arise overnight, but unfolded gradually and recently have now acquired a particularly dramatic character.

Attempts to solve a global environmental crisis in conjunction with economic, social and political issues go back to the 1972 UN Conference on the Human Environment, which embraced the idea of sustainable development, strongly endorsed by the *Report of the World Commission on Environmental Development: Our Common Future*, also known as *The Brundland Report*, published in 1987. However, it was the UN Conference on the Environment and Development, held in Rio de Janeiro in 1992, that marked full international recognition of the need for a transition of the world community to a new path for development. The representatives of 178 states supported the main ideas of the concept of sustainable development, which formed the basis for the “Agenda for the XXI century” document, according to which, national developmental strategies should ensure the coordination of environmental, social and economic plans. The social orientation of the development of the economy, and the preservation of the planet’s resource base in the interests of future generations have been recognized as the general goal of sustainable development.

However, today, after more than 30 years from the time when the concept of sustainable development began to be implemented, its results have been disappointing. There are doubts about the possibility of achieving its goals. In fact, there are a number of reasons for this, one of which is an ambiguous definition of this model and the conditions for its implementation.

The efforts to overcome the current systemic crisis of civilization will be ineffective as long as humanity is captured by the anthropocentric picture of the world and the prevailing system of

interstate and economic relations that are characteristic of industrial civilization, namely the culture of a modern globalized market. To overcome the crisis affecting the environment, economy and the social sphere, the world community is required to create an ecological civilization based on a different stance toward the world, involving different thinking about and perception of the meaning and the principle of existence, the relations of people with each other and with the world of nature.

The ideas of ecological civilization are in the air and are currently formalized in a holistic program that could affect the fate of humanity and nature in their unity with each other. The civilization of the exploitation of nature and the human community, of unbridled and destructive consumption, needs to be replaced by a new mode of existence based on ecological thinking, redefining the relationships between human beings and nature and among humans themselves.

The ideas of American environmentalism, Russian Cosmism, and more recently, ideas associated with the Gaia hypothesis, each recognizing the reality and significance of the biosphere and the noosphere, can be regarded as components of the idea of ecological civilization, which at present has been most fully embraced in China. An ethical-aesthetic approach to the protection of nature, formed at the end of the 19th and the beginning of the 20th century by such scientists as V. I. Taliev, A. P. Semenov-Tyan-Shansky, D. N. Anuchin, D. N. Kaygorodov, I. P. Borodin, as well as the ideas of “universal evolutionism” and the “theory of self-organization of the universe” formulated by N. N. Moiseyev, V. I. Vernadsky and A. A. Bogdanov, should be mentioned in this connection, too. These thinkers had a strong influence on the development of ecology in Russia and on the environmental movement of the 1920’s.

Currently, the design of the model of ecological civilization is facilitated by new ideas in ecology, including human ecology, process thought and ecophilosophy, while drawing on Asian traditions of thought, all contributing to a new eco-human approach to understanding the world and

humanity. All this has helped to create an ideological platform for ecological civilization. The constructiveness of using the concept of ecological civilization is determined mainly by systemic environmental thinking. "Ecology" is a radical system-forming concept necessary to rethink the entire cultural practice of humankind. It will help to realize new opportunities to solve the problems of preserving humanity and the planet. The latest achievements in the field of ecology have an increasing impact on the entire complex of sciences, creating the basis for overcoming the restrictions of previous ways of thinking and forming a different vision of the future, with ethical and political philosophies that are radically different from those that have dominated the era of industrial civilization.

Representatives of different countries are increasingly cooperating to determine the essence of ecological civilization and the ways to build it. One confirmation of this is the number of articles presented in this issue of our journal, the authors of which are specialists from Australia, China and the United States of America. These articles are a reflection of attempts at interdisciplinary understanding of ecological civilization from the positions of ecology, philosophy, anthropology, political science and other sciences. The topic of ecological civilization was previously touched upon in the previous issue of our journal through the publication of an interview with John Cobb and a report on the 16th International Forum on Ecological Civilization and the 5th International Youth Forum on Ecological Civilization.

In the article "Rethinking Political Philosophy through Ecology and Ecopoiesis," Associate Professor of Philosophy and Cultural Studies (Swinburne University, Melbourne, Australia), Arran Gare, provides a critical analysis of the root causes of the planet's contemporary environmental problems in their close connection with the crisis of culture and systems of scientific knowledge from the perspective of political philosophy. This analysis has allowed him to discover the flawed foundations of the global power structures that operate in the current world order. He draws particular attention to the dualism of science, manifested in the opposition between the natural and human sciences and the marginalization of human values. To overcome this dualism and defend communitarian political philosophies, making them a real force in confrontation with dominant thinking and power structures, Gare considers

it necessary to turn to ecology as a factor in the reorganization of science and politics and the creation of an effective counter-hegemonic culture that could unite people to form a multipolar world order of ecological civilization.

In the article "Setting the coordinates for an ecological civilization," the founder of the global online community, the *Deep Transformation Network*, which explores the paths of cultural transformation and the movement of humanity towards a more life-affirming future, Jeremy Lent (Berkeley, California, USA) shares his vision of ecological civilization as a potential future of humanity. Its creation will require a fundamental transformation of the current economy, politics and culture, as well as the value foundations of the current industrial civilization.

In a joint article by the Director of the Institute for Postmodern Development of China, Co-Director of the China Project, Center for Process, Zhihe Wang and colleagues, Meijun Fan and Junfeng Wang, describe their vision of Chinese prospects for creating ecological civilization. Recognizing not only the significant economic achievements of modern China, but also the seriousness of its environmental problems, the authors believe that the creation of an ecological civilization is the most hopeful scenario for coping with the environmental crisis. They emphasize the great value of the traditional philosophical systems of Chinese culture (Taoism, Confucianism, Buddhism), which make it possible to use them for the development of so-called organic process thinking as being the most consistent with the concept of ecological civilization.

This issue of the journal also includes a joint article by Leonardo Lavanderos, Faculty of Engineering UPLA Chile, Professor of Management and Leadership at the Business School of Tec de Monterrey (Santiago, Chile), and Alejandro Malpartida, Universidad Nacional de La Plata, and Faculty of Medicine, University of Buenos Aires. Their article, "Ecopoiesis. Life as a Relational Unit," covers relational cybernetics or third-order cybernetics, biology, ecology, systems theory, neurobiology, relational epistemology, and is dedicated to the interdisciplinary study of the phenomenon of life. They draw on the concept of ecopoiesis and other new ecological concepts to justify their definition of natural and cultural ecology, supporting the transition of scientific knowledge from an object-based orientation to a relational one, from reductionism to a complex perception of life.

In her essay “Squawk. Contemplations on animal presence in art therapy,” Beverley A'Court, a registered art therapist based at the Findhorn Foundation (UK), describes her experience of therapeutic interactions with animals. Her essay continues the series of publications begun in the previous issue of the journal, dedicated to the interdisciplinary understanding of the experience of relationships between humans and animals.

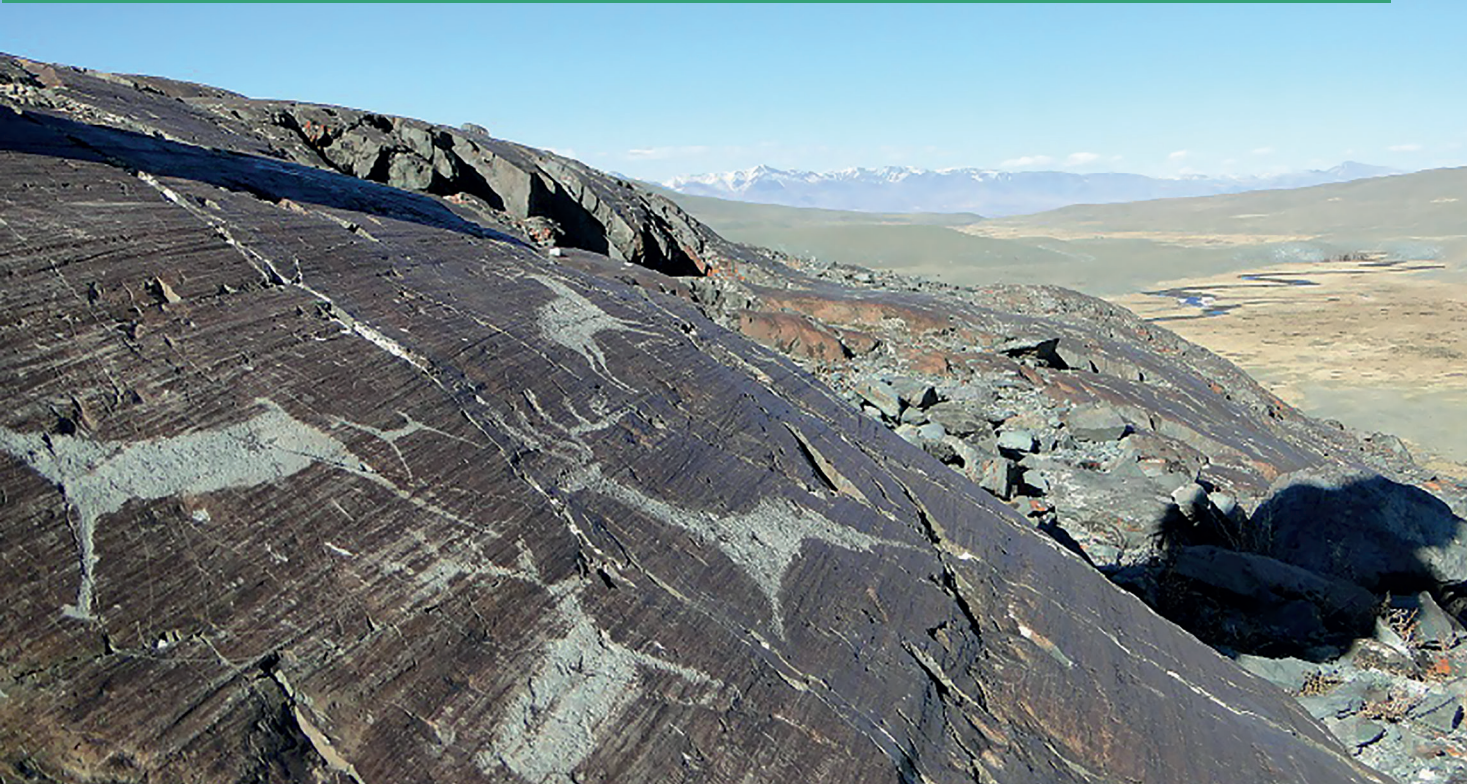
This issue also touches on our relationship with the world of plants and fungi. "the Poetic Anthology of Eco-Human experience; Poems About plants and Fungi" published in this issue, presents a selection of poems dedicated to plants and mushrooms, written by poets of the 20th and early 21st centuries. These poems express different facets of the relationships between people, plants and

fungi, allowing us to see the existential, ecopoietic and visionary dimensions of these relationships> The selection includes poems by Robert Frost, Marina Tsvetaeva, Denise Levertov, Vladimir Soloukhin, Robert Hass, Dorianne Laux, Emily Dickinson and Sylvia Plath.

The value of poetic means of rendering the experience of human communication with the natural world is also revealed in the section, “In Resonance with the Earth,” in this issue. The section features a selection of poems by Beverly A'Court. A long-time practitioner of holistic art therapy, she advocates for the recognition of the importance of poetic language, the body, ecology and world cultural traditions in therapy. This would allow us to feel connected to that stance in the world which is characteristic of artists, healers and visionaries.

Section

In search of the eco-human
paradigm: theory, methodology,
concepts



RETHINKING POLITICAL PHILOSOPHY THROUGH ECOLOGY AND ECOPOIESIS



ARRAN Gare

Assoc. Prof., Philosophy and Cultural Inquiry, Swinburne University of Technology (Hawthorn, Australia)

Abstract. The failure to effectively confront major challenges facing humanity, most importantly, the global ecological crisis, it is argued, is due to the failure of those analysing the root causes of these challenges to engage with and invoke political philosophy to find a way out, and concomitantly, the failure of ethical and political philosophers to effectively engage with the deep assumptions, power structures and dynamics actually operative in the current world-order. It is claimed that this is due to a tacit acceptance of a cultural dualism manifest in the opposition between the sciences and the humanities, with the humanities having been marginalized by the sciences. To overcome this dualism and marginalization of the humanities, and to defend communitarian ethical and political philosophy in a way that both challenges mainstream thinking and engages with the world as it is, with the potential to inspire and orient people for effective action, it is shown how communitarian ethical and political philosophy can be defended and developed through ecology incorporating the notion of ecopoiesis. It is shown how this can serve to create an effective counter-hegemonic culture, integrated as a dialogic grand narrative, uniting and orienting people to create a multi-polar world-order as an ecological civilization.

Keywords: ecopoiesis, ecological civilization, political philosophy, communitarianism, ecology, hegemonic culture, neoliberalism

Introduction

We are currently afflicted by multiple political crises, not least of which is the threat to the future of humanity posed by global ecological destruction. As the eminent US sociologist, William Robinson [30], observed:

'Humanity stands at a crossroads. Global warming and environmental destruction, unprecedented social inequalities, the increasingly difficult struggle for survival of billions of people around the world, escalating social strife, military conflict, and the growing threat of nuclear war — all of these threaten the collapse of global civilization and even our annihilation and mass extinction.' (p.1)

Perhaps the biggest crisis of all is the manifest failure to effectively address these threats to our future. Political leaders, if they acknowledge these problems, for the most part look to market forces

and technological fixes for solutions. Climate scientists, ecologists and radical social scientists, including radical economists, do argue for different, more radical policies than those now being pursued, but they are largely ignored. In grappling with all these issues, most importantly, the failure of politicians to respond effectively to the problems confronting them and to heed the warnings of scientists, political philosophy challenging current assumptions and political practices has been even more completely marginalized and is generally regarded as irrelevant to the real world of economic and political struggles, even by radical scientists and environmental activists. It is my contention that this marginalization of political philosophy, for whatever reason, has made it impossible to mobilize humanity to overcome this crisis of civilization.

In claiming this I am not arguing that all that is needed is for politicians, scientists and the general

public to embrace the work of current political philosophers, even those who have turned their attention to environmental issues. Part of the reason why such philosophers, and philosophy generally, have lost their audience is the inadequacy of most of their work. When it comes to global environmental issues posing threats to the lives of billions, mainstream political philosophers, particularly in Anglophone countries, do not define and defend ultimate values, provide guidance for creating better institutions, define goals for action in the world as it now is, or provide effective alternative bases for policy formation than those manifestly defective approaches that now dominate. There is more radical work in political philosophy, but with some rare exceptions even these are too limited to really challenge mainstream thought. There is a failure to work out how, given the current state of the world, their radical ideas could be put into practice. With the triumph of neoliberalism, economists have taken the place of and marginalized political philosophers when it comes to defining the direction societies should take.

My contention, following Jason Moore, is that this is really a manifestation of a deeper problem of our current fractured culture with its dualism between the subjective realm focussed on by the humanities and the objective realm focussed on by science, the 'Two Cultures' referred to by C. P. Snow, and the almost complete triumph of the objective over the subjective. This division has its roots in the dualism that, in philosophy, goes back to René Descartes' mind-body dualism. However, this had even deeper roots in new forms of life that developed in Western Europe from the Fifteenth Century onwards as feudalism was displaced by capitalism. This is now seen to have originated not in the Seventeenth Century in Britain with the enclosure of the commons, creation of wage laborers and then industrialization, as Karl Marx argued, but with colonialism led by Portugal and Spain (Castile-Aragón) financed by Northern Italian bankers. These bankers aimed to gain a return on their capital investments through funding economic ventures that plundered natural resources of colonies and then conquered and enslaved people in these colonies to work on plantations. This established a form of life based on the endless accumulation of capital, defining and evaluating the world in terms of this quest. Success was dependent upon finding cheap inputs, which at the same time led to cheapening, that is, devaluing these inputs. As Moore among

others have argued, from this time onwards, 'Society', seen to be made up of rational egoists, came to be seen as outside 'Nature', and Nature (which included 'savages', slaves, land and other natural resources) was conceived as a realm to be commodified, cheapened, and efficiently controlled to be exploited by Society [23, 19ff.; 34, 131ff.].

It was this form of life that engendered Cartesian dualism, upholding a decontextualized, atomistic conception of subjects as asocial, free agents outside Nature, able to act rationally on Nature to pursue their interests, produce and exchange goods, make contracts, including contracts to establish Society with political institutions and laws designed to serve their interests, conjoined with a mechanistic conception of Nature comprehensible through mathematics and thereby controllable for the benefit of such a Society. It is this dualism that is encoded in the division between the humanities and the sciences, including mainstream economics and positivist social sciences. Later, this dualism was manifest in the division between managers and those they manage, whether colonized countries, primitive people and slaves, women, or wage laborers, and the institutions, including financial institutions to facilitate such relations and to keep the managed under control and exploited efficiently. This was associated with the displacement of the quest for justice by the quest for rights based on contracts focussed on protecting life and property, and utilitarian ethics focussed on controlling people and keeping them contented. As Western Europeans colonized and dominated the world over subsequent centuries, so also did this dualist culture.

Acknowledging a place to subjects at least to some degree provided the basis for challenging Descartes' atomistic, asocial notion of subjects through the arts and humanities; that is, those domains of culture designed to foster people's spirituality and humanity and the capacity for people to govern themselves. The humanities originated in Northern Italy in the Fifteenth Century Florentine Renaissance, reviving and developing ideas from the Ancient Roman Republic and from Ancient Greece, and culminated in the work of Giambattista Vico. Proponents of the humanities generally sought to recognize the reality of historically developing communities capable of self-governance, more primordial than social relations formed by contracts between property owning males. Philosophers who defended the humanities in opposition to those who defended

‘scientism’ — claiming that only science could advance genuine knowledge, often defended some form of Idealism, taking knowing subjects, either individuals in the case of Subjective Idealism or collective in the case of Objective or Absolute Idealism, as the reference point for characterizing the world, including Nature. The philosophical foundations of the humanities were most fully developed in Eighteenth and Nineteenth Century German philosophy, which could be regarded as a second Renaissance. This Renaissance was inspired Jean-Jacques Rousseau and Immanuel Kant, with one of Kant’s students, J.G. Herder (1744–1801) arguing that we are essentially cultural beings, formed by our unique cultures and committed to self-realization in the context of these cultures, and another of Kant’s students, J.G. Fichte (1762–1814), arguing that we only become self-conscious subjects, capable of acting freely as moral agents, through being recognized by and seeing ourselves from and judging the principles of our actions through the perspective of other free subjects. G.W.F. Hegel and F.W.J. Schelling integrated these insights, offering a general theory of history as the realization of the World-Spirit involving the development of culture and institutions that recognize the significance and freedom of all people. In opposition to Fichte’s Objective Idealism, they defended Absolute Idealism, although later Schelling went beyond Idealism. Almost all advances in the humanities in modern European civilization, including political philosophies challenging the atomistic individualism of mainstream thought, can be traced back to the influence of these philosophers.

As the market, technology and the instrumental reasoning associated with these advanced, the place accorded to subjects contracted. The dualism in Western culture originally upholding the spiritual salvation of the individual as the ultimate end was transformed as the dominant rational materialism encroached into and then eliminated human autonomy. Idealism of any kind lost its plausibility, along with the values the Idealists had defended. It was this, which finally triumphed with neoliberalism beginning in the 1970s, that finally trivialized and marginalized the humanities and their concern with human experience, culture and community. As Friedrich Nietzsche observed, this paved the way for the final, complete devaluation of all life, not only theoretically, but in practice.

The central place of economic thought

The science of economics has had a central role in these developments. Under the influence of Descartes, Thomas Hobbes and John Locke, who had embraced the mechanistic view of nature and attempted to characterize humans in a way that was consistent with this, individuals were understood as *homo economicus*, characterised as agents able to acquire instrumental knowledge of nature and make contracts to further their own interests — most importantly, avoiding aversions and satisfying their appetites (to use Hobbes’ language) and acquiring property, wealth, or more abstractly, capital. The extension of markets in which people were free to enter contacts and exchange goods, including labour, with property rights protected, was portrayed by the economists as the basis of freedom. This is the philosophy of ‘possessive individualism’ as it was characterized by C. B. Macpherson [19]. Despite challenges, and with some modifications by neoclassical economists, this basic framework has dominated up until the present. It was reinforced by being used by Darwin as a metaphor to characterize evolution in nature, making the competitive struggle for survival in which progress is achieved through the survival of the fittest a universal characteristic of life. This metaphor was then used not only to further justify capitalism, but also imperialism and genocide [35].

This tradition of thought has been reinvigorated by neoliberal economists associated with the Mont Pelerin Society and Chicago School of Economics, most importantly Friedrich Hayek [15] and Milton Friedman [11]. These neoliberals called for the imposition of unconstrained markets on all facets of life. It is the political thought of these economists, combined with militaristic foreign policies of USA and its allies to impose this political philosophy on recalcitrant countries, beginning with the overthrow of the elected government of Chile in 1973, that has dominated the world for the last half century, including almost all supposedly left-wing governments, with little effective opposition. The followers of this doctrine embraced British Prime Minister Margaret Thatcher’s claim that there is no society; there are only individuals, families and the global market (despite Thatcher having led Britain to a war with Argentina over a remaining fragment of the British Empire).

Neoliberals, freeing markets to determine what is produced and how income is distributed, claim they are liberating people from the constraints of oppressive governments, and following the failure and collapse of the Soviet Union, they also claim there is no alternative to neoliberalism. They identify neoliberalism with upholding freedom, democracy and human rights. At the same time, individuals are simultaneously portrayed as controllable through rewards and punishment, and with the advance of the human sciences, peoples' desires and aims are seen as controllable through advertising and public relations, the mind control industries. With the globalization of the economy and the growth and domination of transnational corporations promoted by neoliberals, the institutions of nation states have been transformed into instruments serving these transnational corporations [29]. Utilizing the US military-industrial complex and intelligence organizations imposing markets on all facets of life, neoconservatives, in the name of freedom, democracy and individual rights, have endeavored to overthrow democratically elected governments, interfered with elections, had foreign leaders assassinated and initiated a succession of wars against countries that have resisted their absorption into the global market and hindered transnational corporations profiting from exploiting their resources [4, p. 1]. Associated with the information technology revolution developed by the military industrial complex, people have been reconceived as information processing machines manufactured by DNA and controllable through new digital surveillance technology.

In this context, in which genuine democracy with citizens having real political power has been effectively subverted, the arts and humanities have been devalued, and if not eliminated (as they are being eliminated in some universities), are redefined as contributors to the entertainment and decoration industries, or as providing useful knowledge for people working in advertising or public relations. Idealism and the ideals defended by Idealists have been totally marginalized.

Critiquing the hegemonic culture

In the past, mainstream culture had been challenged most effectively by those who have embraced the humanities and viewed humans as essentially cultural beings, but engaged with

science and identified the source of oppression in the culture of modernity in the tradition of economic thought, incorporating the philosophies of Descartes, Hobbes and Locke. Usually, they were influenced by Marx and the tradition of Marxism, although there were allied thinkers influenced by the same thinkers who had influenced Marx, such as the social liberals, pragmatists, institutionalist economists and process philosophers. These are the thinkers who utilized and built on the insights of Herder, Fichte and Hegel, but like Schelling, moved beyond Idealism. Such thinkers have the means to explain why radical proposals required to reverse ecological destruction are marginalized and rendered ineffective, although their explanations are ignored.

Marx and Marxists in particular offered powerful critiques of ruling ideas and explained their dominance and resistance to critique. These critiques are necessary and extremely important. However, Marxists and post-Marxists have tended to privilege critique above all else. For instance, we have Marx's *Critique of Hegel's Philosophy of Right*, and the subtitle of Marx's major work, *Capital*, was *A Critique of Political Economy*. Furthermore, supposedly orthodox ('vulgar') Marxists have tended to grant a privileged place to the base/superstructure model of society and embraced scientism. This is really Cartesian dualism in a modified form, treating politics and the development of ideas other than those relevant to advancing the forces of production as part of the superstructure and as such, merely an expression of or an instrument of the economic base. The ultimate end is the development of the forces of production by the most efficient means possible. The call for dictatorship of the proletariat with state ownership of the means of production is no political philosophy at all. Nor was Lenin's notion of the withering away of the state. In the final analysis, as Alexander Bogdanov predicted in June, 1917 [12, p. 342], it boils down to rule by managers. The rise of managerialism, characterized by James Burnham in *The Managerial Revolution* [8], first published in 1941, was portrayed not as the replacement of capitalism and its oppressive dynamics, but with its further advance. What we now have is rule by corporatocracy, the managers of transnational corporations forming a transnational ruling class who control which politicians gain power, and this, many now argue, is the problem [18, 29].

Even when Marxists (usually influenced by Hegel) reject the base/superstructure model of society for a holistic characterization of the development of capitalism as a socio-economic formation, showing how all the practices, technologies, institutions, cultural productions and ways of thinking in the modern era are internally related to and are aspects of the development of this formation, according a significant place to culture and cultural struggles in its constitution and maintenance, they usually avoid questions of what political structures could replace those which are oppressive and which would not become oppressive in turn, while being dismissive of the achievements of efforts to control these oppressive tendencies without completely replacing the market by social liberals, social democrats and democratic socialists.

This is less the case with the best Marxist work on culture and politics, however, most importantly, the work of Antonio Gramsci and those he influenced. Gramsci, who was influenced by Bogdanov and the council communists, argued that to rule, an existing ruling class has to maintain cultural hegemony through which it organizes consent, while those challenging the ruling class have to develop a counter-hegemonic culture. Organization of consent for the existing order requires some understanding by people of the socio-economic political order they are part of, while a successful counter-hegemonic movement requires unification by those who are or feel oppressed by the existing order by identifying this oppression, finding common interests with others who are oppressed, and convincing people that the current order can be replaced by a different order that is worth fighting for. To prevent radical movements being ideologically captured by the forms of thinking that previously prevailed, Gramsci concluded that rather than a counter-hegemonic culture an alternative hegemonic culture needs to be developed based on different conception of the world [2]. As the Gramscian social and cultural theorist Carl Boggs [5, 184ff.] argued, Gramsci's work provides a starting point for those facing the crises of our civilization and aspiring to create a different world order, locally and globally, one that augments rather than destroys the ecological conditions for humanity. To begin with, those challenging the current order need to understand the current ruling elites and how they dominate the world, culturally and politically.

Developing a counter-hegemonic culture

As noted, if the current order is to be challenged and replaced, it is necessary to provide a perspective from which the oppressive and destructive tendencies of the current order can be understood, while showing that a different and better order is possible. Central to this is the development of historical narratives. With the marginalization of the humanities, the role of narratives or stories in life has been vastly underestimated [13]. As David Carr [9] argued, all our actions, individual and collective, are lived stories, projecting a future state to be realized and articulating the steps to achieve this. Stories can create and are constitutive of human organizations and communities, including nations and civilizations, upholding an image of the future to be realized [25]. Lived stories, especially collective stories, encompass sub-stories, including alternative and even rival or conflicting stories, on the path to realizing goals. Sub-stories can be focussed exclusively on efforts to develop better understanding of situations and the broader world, as in the stories of the development of philosophy, history and science, and narratives are an essential component in developing and judging ideas in such quests. This is even the case in mathematical research. The existence of sub-stories is essential to shared lived stories, which can range all the way from small, temporary organizations up to the stories of civilizations and humanity as a whole. Usually, these broader stories are embraced tacitly without reflection. This is particularly true of the narratives defining the goals of civilization. However, even these can be brought to consciousness and articulated, either in words or other art forms, questioned and rethought, and then explicitly embraced whether in its original or in some radically modified form, thereby refiguring people's lives. Lived stories can be monologic, in which a dominating elite treat subordinates as instruments, or dialogic, allowing participants to participate in questioning, discussing and reformulating these lived stories.

To succeed in gaining cultural hegemony, those challenging the existing order require stories to orient themselves and define their goals, and to inspire others to embrace their goals. It requires understanding of the dominant narratives and openness to the narratives of all people oppressed

by the existing social order, and constant efforts to reformulate narratives to be more inclusive of these others. Their narratives should be dialogic rather than monologic, although once power is gained, commitment to dialogue tends to be lost. Established elites in order to maintain their cultural hegemony in the face of disappointments and problems tend to uphold monologic grand narratives, excluding the narratives of those who are being suppressed or exploited, and any place for the questioning of these narratives. The most extreme form of narrative denial is illustrated by the refusal to acknowledge that 'primitive' people have a history. As Eric Wolf [34] put it, these are the 'people without history'. Such denial amounts to a refusal to acknowledge the life conditions, aspirations and projects of such people. Removal of any place for questioning the dominant narratives is typical of societies in the face of crises which could undermine the legitimacy of their rulers. Narratives that reveal problems in or alternatives to lived narratives, or which, by providing parallels with other societies and civilizations, past or present, which might provide insight into current problems, the need for drastic changes and real alternatives to the existing order, are likely to be censored or at least marginalized.

The neoliberal grand narrative that came to dominate the world after the financial crises of the 1970s, the integration of China into the global market and then the collapse of the Soviet Union, was imposed as a monologic narrative from the beginning. Its leaders embraced Walter Lippmann's argument that modern society is too complex for genuine democracy and what is required is the manufacture of consent [22, 13ff.]. Committed to dismantling the welfare state and weakening democracy in the West, destroying communism and suppressing Third World aspirations to end their exploitation, neoliberalism was defended through neoclassical economics claiming to be a hard science and therefore out of the scope of ordinary mortals to understand. This went along with a massive public relations campaign to manufacture consent, increasing domination of the mass media by a few media moguls, and subversion of institutions of education through transforming universities into transnational business corporations. Policies based on neoliberalism were imposed by global institutions such as the International Monetary Fund, the World Bank and the World Trade Organization which forced countries to privatise public

assets, dismantle welfare programs and eliminate barriers to free trade, allowing governments to be sued by transnational corporations if their legislation damages their profits. This was reinforced by the US that after WWII imposed the US dollar as the international currency and later used this to sanction countries that acted against the interests of transnational corporations. All this has been associated with the massive growth of debt and the increasing dominance of the financial sector of the global economy [17]. All these institutions have been backed up by military alliances such as NATO and SEATO committed to maintaining a unipolar world dominated by the US military industrial, intelligence, finance complex promoting above all the interests of US based transnational corporations.

Essentially, neoliberalism was a revival of Nineteenth Century capitalism in a much expanded form, now dominated by USA rather than Britain and France, committed to dismantling the advances made by the labour movement worldwide over the previous century. It has resulted in a massive transfer of wealth and income to the wealthy, the precarization of work and the impoverishment of vast numbers of people, including people in USA, and a destabilization of the global economy. This has been conjoined with the rise of fascism, a connection observed by Karl Polanyi in early Twentieth Century Europe. The basic problem, he observed, is that 'the idea of a self-adjusting market implied a stark utopia. Such an institution could not exist for any length of time without annihilating the human and natural substance of society; it would have physically destroyed man and transformed his surroundings into a wilderness.' [26, p. 3]. It had to produce a reaction, and if not some form of socialism, then fascism. In blinding people to the connection between market fundamentalism and fascism, and to succeed in making people believe that there is no alternative, it has been necessary to erase as much as possible historical memory, and if historical knowledge cannot be erased, to uphold a false or at least highly distorted, one-sided understanding of history. Increasingly, ruling elites follow the approach of the Roman Empire, dividing others in order to rule, co-opting potential opponents to implement their agenda, while relying more and more on surveillance and coercion to eliminate opposition. As William Robinson [31] argued, the transnational ruling elite have created a global police state.

A more adequate historical narrative is required not only to correct omissions, falsifications and distortions, but to identify what is driving oppression and destruction, what has succeeded in the past in overcoming at least to some extent such oppression and the possibilities for reviving suppressed forms of thinking and political trajectories. However, achieving this is not just a matter of reviving genuine history. It is necessary to develop historical narratives that unite people to become effective agents of history and to succeed in this. Historical narratives need to be formulated through a theoretical perspective that facilitates not only an appreciation of the suppressed narratives and an understanding how distorted narratives are maintained and more adequate narratives are sidelined or crippled, but also to provide a better understanding of the world, orienting people to create the future. All this is central to identifying, understanding and challenging the current hegemonic culture as part of the process of developing counter- or alternative hegemonic culture.

Ecology as a challenge to neoliberal hegemony

Where is the theoretical perspective required for these alternative hegemonic historical narratives to come from? If the humanities, including history, have had their cognitive status undermined by scientism, then science is the obvious place to look. The cognitive status of mainstream economics derives largely from its efforts to emulate and accord with physics, which had marginalized the philosophy of Aristotle largely inspired by biology. However, physics has stagnated over recent decades, and the most creative work in science is coming from biologists opposed to mainstream reductionist thinking. Within biology, one of the most creative areas is now ecology, with organisms being portrayed as highly integrated ecosystems' and humans' distinctive characteristics now made intelligible through biosemiotics and human ecology. Robert Ulanowicz [33, p. 6] has argued that ecology should now be taken as the reference point for defining all science, with ecologists developing the concepts, forms of thinking and mathematics that might overcome the logjams blocking the advance of physics. Ecology,

which also challenges mainstream evolutionary theory by revealing the importance of symbiosis, synergies and emergence in evolution in opposition to the neo-Darwinian synthesis that reduced organisms to machines for reproducing genes and had been used to revive social Darwinism in the 1970s, provides a solid basis for challenging the hegemonic culture.

Ecology is the study of biotic communities, now usually characterized as ecosystems. What became evident from such study is that organisms interacting with each other transform their environments in a way that is conducive to their life, making these communities resilient in the face of perturbations while creating niches (or 'homes') that allow individuals and species to explore new possibilities. That is, biotic communities are 'ecopoietic', creating the conditions or homes within which components can flourish and new living forms can emerge that augment the life of these communities. Incorporating thermodynamics into ecology and human ecology facilitated further advances in these disciplines. Advances in thermodynamics, notably, the development of non-linear thermodynamics and the study of dissipative structures by Ilya Prigogine and his colleagues, along with other developments in complexity theory, including work on morphogenesis and the development of hierarchy theory by Howard Pattee, Timothy Allen and Stanley Salthe among others have strengthened the anti-reductionist tradition of ecology. Salthe [32] has also integrated endophysics, the view that it is necessary to appreciate that we are part of the world we are trying to understand, into an ecological world-view. This work has enabled Jacob von Uexkull's biology and Peircian biosemiotics to be integrated into ecology, generating a new sub-discipline — ecosemiotics [14, p. 131; 20]. On the basis of such advances, Ilya Prigogine [27, p. xiif.] claimed that 'we are in a period of revolution — one in which the very position and meaning of the scientific approach are undergoing reappraisal — a period not unlike the birth of the scientific approach in ancient Greece or of its renaissance in the time of Galileo.' Prigogine and Isabelle Stengers argued that this would bring about a new alliance between science and the humanities [28, p. 68; 14, p. 129], and the development of ecology, including ecosemiotics and human ecology, provides strong justification for this claim.

From Marxism to world systems theory and human ecology

While there are a number of marginalized traditions of social thought opposing mainstream culture, the strongest tradition is still Marxism, including 'post-Marxism', the tradition heavily influenced by Marx but integrating other research traditions and grappling with new facets of world history as it has unfolded since the Nineteenth Century, most importantly at present, the global ecological crisis. The core of this Marxist tradition is the view that capitalism originated in Western Europe as something radically new in human history, a mode of production and socio-economic formation in which the quest for capital based on commodifying nature and labour as a means to gain more capital has no limits and had to grow until it dominated the world, with commodification growing extensively to encompass the globe, and intensively, commodifying more and more facets of life in the quest for new avenues for profitable investments. The current situation with the domination of the world by a transnational corporate elite controlling the most powerful cultural and political institutions, inexorably moving towards the destruction of the ecological conditions for civilization, is the logical outcome of this growth.

One of the most important developments in post-Marxism was world systems theory developed by Immanuel Wallerstein under the influence of Marxist theories of imperialism, systems theory and the geo-historical work of Fernand Braudel and the Annales School of historians. Wallerstein argued that capitalism emerged in Northern Italy and has been characterized not by the creation of a global empire, but a global system characterized by core zones, semi-peripheries and peripheries. The core zones use the semi-peripheries to exploit the peripheries. Countries vie with each other to rise in this system, but few succeed in rising. The system has been dominated by a succession of hegemonic powers — first, Venice, then the Dutch Republic, then Britain, and then USA. Successions are usually characterized by instability, increasing conflict and warfare over which country will succeed the old hegemonic power — for instance, between France and Britain and her allies as the Dutch Republic declined, and between Germany and USA and their allies as Britain declined. USA is now in decline, and what we are

seeing is growing instability and violent conflict as USA and its allies are challenged by China and its allies.

Wallerstein's work has been further developed by Stephen Bunker and Jason Moore, among others, integrating it with advances in thermodynamics and ecology. Bunker embraced the work of Richard Newbold Adams, a social theorist indirectly influenced by Alexander Bogdanov, on the thermodynamics of human societies. From this perspective:

'Everything in the environment of man is composed of energy forms and processes and can be measured in terms of the amount of energy that is potentially available for conversion or is being converted. ... In dealing with social power ... we are concerned not so much with the rate of flow or conversion as with the control that one actor, or party, or operating unit exercises over some set of energy forms or flows, and, most specifically, over some set of energy forms or flows that constitute part of the meaningful environment of another actor.' [1, p.1]

The control that matters most is control over the triggers that begin processes of energy transformation.

Focussing on Brazil and the Amazon Basin, Bunker showed how the relationship between the core zones, semi-peripheries and peripheries can be understood as the appropriation and control of energy flows by the core zones, in this case, USA, which as a productive economy, becomes more powerful and more able to control the semi-peripheries and peripheries as they develop, with the semi-peripheries, in this case, the metropolises of Brazil, are manipulated into extracting energy from the peripheries. The Amazon as an extractive economy, exporting its reserves of minerals and destructively exploiting its ecosystems, becomes poorer as it develops. As Bunker [6] argued:

'... production models cannot explain the internal dynamics of extractive economies because the exploitation of natural resources uses and destroys values in energy and material which cannot be calculated in terms of labour or capital. When natural resources are extracted from one regional ecosystem to be transformed and consumed in another, the resource exporting region loses values that occur in its physical environment. These losses eventually decelerate the extractive region's economy, while the resource-consuming communities gain value and their economies accelerate.' (p.22)

It is this structure that facilitates ecologically destructive exploitation of the peripheries. The lesson Bunker drew from his study that:

‘Dominant classes depend on their societies’ total environment; in this sense they depend on the organization of other classes’ adaptation to the environment. The clearest lesson of class relations in the Amazon is that dominant groups which impoverish the rest of society ultimately impoverish themselves. Only when human communities with balanced exchange relations exist is it possible for social organization to adapt to its total environment in ways which sustain both human community and the ecosystem itself.’ [6, p. 252]

Bunker claimed this as an extreme form of ‘hypercoherence’ as it was characterized by Anatol Rapaport, the tendency of dominant social systems to increase control, to use up more and more available energy, until a stage is reached where they have so much power they can survive while contributing little or nothing to the systems on which they are dependent — until they destroy these systems, the conditions of their own existence.

Bunker’s use of Adam’s work to reformulate Wallerstein’s world systems theory involved conceiving humans as cultural beings in naturalistic terms as part of and within nature. Bunker’s perspective is that of human ecology, in which human communities are seen as ecosystems participating in broader biotic communities or ecosystems. This amounts to a rejection of the dualism between Society and Nature and a conception of nature which acknowledges that humans with their distinctive powers and liabilities have evolved within and are part of and participants within nature. However, Adam’s and Bunker’s work still contained a residual dualism between humans and their environment, with energy flows being seen to be controlled by people.

Jason Moore in his theoretical work, *Capitalism in the Web of Life: Ecology and the Accumulation of Capital* [23] attempted to overcome such residual dualism afflicting even radical environmentalists who claim to see people as within nature. For Moore, this is not merely a theoretical problem. As he wrote in his introduction to this work: ‘I argue that “Society” and “Nature” are part of the problem, intellectually and politically; the binary Nature/Society is directly implicated in the colossal violence, inequality, and oppression of the modern world; and that the view of Nature

as external is a fundamental condition of capital accumulation. Efforts to transcend capitalism in any egalitarian and broadly sustainable fashion will be stymied so long as the political imagination is captive to capitalism’s either/or organization of reality. And relatedly, efforts to discern the limits of capitalism today — such discernment is crucial to any anti-systemic strategy — cannot advance much further by encasing reality in dualisms that are immanent to capitalist development. ... Capitalism’s governing conceit is that it may do with Nature as it pleases, that Nature is external and may be coded, quantified, and rationalized to serve economic growth, social development, or some other higher good. This is capitalism *as a project.*’ (p.2)

In opposition to this, Moore argued that humans have to understand themselves consistently as components of the ‘web of life’:

‘The “web of life” is nature as a whole: nature with an emphatically lowercase n. This is nature as us, as inside us, as around us. It is nature as a flow of flows. Put simply, humans make environments and environments make humans — and human organization.’ (ibid, p. 2).

The pattern of relations that we call capitalism works *through* nature, while nature works *through* the more limited zone, capitalism. Moore called this movement of capitalism through nature and of nature through capitalism, the ‘Double Internality’, and argued this should be understood as a dialectical relation. In developing this notion, he offered ‘*world-ecology*’ as a new paradigm. Modernity, with its multiple crises, he characterized as ‘the capitalist world-ecology’ in which external nature and humanity co-produce capitalist relations, including a commodified Nature.

Central to this new paradigm is the concept of ‘*oikeios*’. Moore [23] wrote of this:

‘*Oikeios* is a way of naming the creative, historical, and dialectical relation between, and also always within, human and extra-human natures. The *oikeios* is shorthand: for *oikeios topos*, or “favorable place,” a term coined by the Greek philosopher-botanist Theophrastus. ... The *oikeios* is a multi-layered dialectic, comprising flora and fauna, but also our planet’s manifold geological and biospheric configurations, cycles, and movements. Through the *oikeios* form and re-form the relations and conditions that create and destroy humanity’s mosaic of cooperation and conflict: what is typically called “social” organization. Nature-as-*oikeios* is, then,

not offered as an additional *factor*, to be placed alongside culture or society or economy. Nature, instead, becomes the matrix within which human activity unfolds, and the field upon which historical agency operates.' (p.35)

Moore argued that: 'Key to realizing such a deeper understanding is developing a language, a method, and a narrative strategy that puts the *oikeios* at the center.' [ibid, p.4]

The world ecology of capitalism involves a particular kind of *oikeios*, one which objectifies nature as Nature separate from Society, an objectified world of taps and sinks to be exploited for profits, simultaneously generating a distorted understanding and evaluation of the broader natural processes which has made the exploitation of commodities possible. This does not mean that these broader natural processes are not recognized at all in the concept of Nature. However, the concern of those striving for profitable capital investments is to have these as cheaply as possible in order to reduce labour costs. In *Capitalism in the Web of Life*, Moore spoke of four 'cheaps' — labour-power, food, energy and raw materials. In a later work, *History of the World in Seven Cheap Things* [24], Patel and Moore argued that the quest to cheapen seven things — nature, money, work, care, food, energy, and lives, has driven the history of the modern world. The quest for Cheap Nature, he argued, generates a 'relentlessly innovative quest to turn the work/energy of the biosphere into capital (value-in-motion).' (p.14) It is this that can explain the evolution of capitalism, the division into core zones, semi-peripheries and peripheries, and through which the current crisis of modernity-in-nature can be understood.

Moore argued that capitalism now faces a major complex of crises because there are no more boundaries to cross to provide new sources of cheap things. Peak oil illustrates this, but this is only one of many cheap things that are no longer cheap. At the same time, sinks are being exhausted, including the atmosphere and oceans that are no longer sinks for greenhouse gas emissions. In the past, the exhaustion of cheap things has been circumvented, with colonialism and slavery in the sixteenth century overcoming a crisis on limits of exploitable labour in Western Europe after the devastation caused by the plague. We now appear to have reached the ultimate limits where there are no more frontiers to cross and exploit. The consequence has been that more and more wealth has been generated by asset inflation rather than

production, with income generated through this really being the transfer of wealth from poorer to wealthier people and the creation of a global rentier class [17, p. 25ff.]. This has been associated with the exclusion of more and more people from the economy, and concomitantly, the revival of fascism characterized by exclusivity and the refusal to acknowledge the humanity of the excluded. This parallels the developments that took place in the early Twentieth Century, culminating in World War II. It might be hoped that a successful challenge to the hegemony of USA in the global system by China, with Russia as a client state, will overcome this crisis. However, apart from the likelihood of a new world war, possibility involving nuclear weapons, this would still be operating within the destructive logic of the capitalist world-system. It would not solve the global ecological crisis, but possibly, accelerate it. What is required is a transcendence of this system by creating a global ecological civilization committed to augmenting the health of the ecosystems of which we are part, based on multi-polarity rather than domination of the world-system by a new hegemonic power.

The notion of *oikeios* offers a basis for comprehending what was achieved by and what is wrong with the current world-system, or as Moore characterized it, the capitalist world ecology. The term largely corresponds to the term 'ecopoiesis', with minor differences. As I understand it, 'ecopoiesis' assumes and places more emphasis on the role of 'household- or home-making' or ecopoiesis in the functioning ecosystems, being essential to them, their health and adaptability. The creation of *oikeios* through the logic of the market, defining all value through actual or potential monetary exchanges, has facilitated the functioning of some human communities but has damaged others and damaged ecopoiesis in biotic communities. While generating major technological advances facilitating the growth of human populations, it has provided the conditions for the emergence of what the ecological historian, William McNeill [21, p. 69ff.] characterized as macroparasites who contribute nothing to life, blind to the brutality of their exploitation of other people, their role in the destruction of the ecosystems of which they are part, and the complexity of and intrinsic significance of terrestrial life. The notions of *oikeios* when combined with ecopoiesis provides a basis for comprehending what kind of *oikeios* is required that is sustainable, one in which conditions

are provided for people to flourish while augmenting the life and health of their communities, human and non-human. 'People' here should be understood not just as individuals, but also as communities at multiple levels up to the whole of humanity; that is, communities of communities. That is, a good *oikeiosis* facilitates creative, health generating *ecopoiesis*, the production of environments, including semiotic environments, conducive to the flourishing of life in a way that augments the conditions for life.

Reviving communitarian ethical and political philosophy

So understood, *ecopoiesis* provides a framework not only for rethinking economics as institutional ecological economics, but for ethical and political philosophy. It is not necessary or desirable to develop this ethics and political philosophy in abstraction from previous work in this area. Post-reductionist ecology, incorporating the notions of *oikeiosis* and *ecopoiesis*, provides the basis for defending, rethinking and advancing work in the humanities on naturalistic foundations, including work in social and political philosophy, while rejecting the mechanistic form of atomistic individualism deriving from Hobbes and Locke. Ethical and political doctrines challenging mainstream thought are generally associated with the communitarian tradition that took inspiration from the philosophies of Aristotle and Hegel, and less directly, of Herder, Fichte and Schelling [3]. Communitarians argue against atomistic individualism that community is central to and the condition of human existence, that without being socialised into the culture of a community the notion of any contract, let alone a contract to found society as postulated by Locke, would be unintelligible. The philosophy of the communitarians is much more in accord with non-European traditions of thought and avoids Western ethnocentrism. It provides the basis for defending core values of other cultures around the world, including Chinese culture, and at the same time, uniting those oppressed or threatened by the current world order. This includes most of humanity, including most people living in affluent Western nations.

Reviving communitarianism can be seen as an effort to recover the quest for justice (giving people

their due) that survived the onslaughts of Machiavelli, Hobbes and Locke and their followers. This communitarian tradition, while subordinate, has not been without influence. It appeared to be triumphing with the defeat of Nazi Germany and its allies, and then with the development of the United Nations, the advance of social democracy in the West, the triumph of Communism in China, the dismantling of imperialism, liberalization of communism in the East and the defeat of US neo-colonialism in Vietnam. The next challenge was to deal with environmental problems. This was the historical trajectory that the New Left tried to revive, but was derailed in the 1970s and 80s by neoliberals and 'neocons' (neoconservatives) associated with the rise of the global corporatocracy.

Aristotle argued that we are essentially 'political animals' (*zoon politikon*), that the principles concern of ethics is to work out the ultimate ends or end, which he argued is 'eudaimonia', and that the polis should be organized to facilitate people realizing these ultimate ends. This is the basic principle (*arche*) of politics, the condition for engaging in political arguments. Without understanding this, people will simply talk past each other. It can be argued that this is still the case. He characterized eudaimonia in *Nicomachean Ethics* as proper functioning, an activity of the 'soul' over a complete life in accordance with the best or most complete virtue. By 'soul', Aristotle meant the final cause of the organism, and in humans, this is life of the rational element through active engaging in public affairs based on the quest for justice and participating in inquiry understood as the quest for wisdom, with the habituated disposition to pursue justice and wisdom being the highest virtues. *Eudaimonia* is then realizing one's highest potential in one's life, and it is in realizing this potential that one becomes most fully human, and that this can only be achieved through participation in a community. In *The Politics* Aristotle classified and examined the various constitutions to work out which constitution best provided the conditions for achieving eudaimonia. Aristotle assumed the Greek polis as the topic to be investigated, and focussed on governance of these. Roman, Islamic and Medieval European philosophers did not depart radically from Aristotle's philosophy, but went beyond him in not presupposing the polis as the only political form, recognizing mixed constitutions (from Polybius onwards), and

rethinking what is eudaimonia. This tradition was challenged by Machiavelli who questioned the primacy accorded by Aristotle to the quest for justice, but was really only sidelined the Seventeenth Century Scientific Revolution with the work of Hobbes and Locke with their mechanistic world-view.

The German Renaissance was pre-eminently concerned to challenge the tradition of thought deriving from Hobbes and Locke. In doing so, many of Aristotle's basic notion of ethics and politics were recovered, but advanced by taking into account history and the greater complexity of human societies, rethinking the nature of humans and of rationality. Herder developed the notion of 'cultures,' arguing that humans only become human through being socialised into cultures, most importantly, through language. He argued that the ultimate end of life is self-realization, but instead of assuming that this would be the same for everyone, he argued that cultures differed, upholding different values, and each historically situated individual is challenged to find their own unique centre of gravity and realize their own unique potential, in doing so, developing their own culture. Artists, expressing their whole personality in their work, were seen by Herder as the model for this. While praising cultural diversity and attacking the tendency of empires in the past and capitalism in the present to dominate and homogenize people, Herder was not a complete relativist. He argued that through history there has been a general tendency to greater humanity. This tendency could be explained through the struggle for recognition as described by Fichte, where this is only possible through recognising the significance of others, this providing an impetus for the quest for justice. Following Rousseau, Kant and Fichte this was associated with recognizing a form of rationality over and above instrumental, self-centred rationality, a rationality of the general will committed to the common good, participation in which elevates people beyond their appetites to be truly free.

Hegel and Schelling integrated Herder's work on history with this notion of rationality. In doing so, they greatly advanced ideas on what humans are and what motivates them [14, p. 163ff.]. Hegel argued that humans are involved in three dialectical patterns of culture through which they transcend their immediate engagement in the world and achieve self-hood. There is the dialectic of labour which operates through tools, or

technology, the dialectic of recognition which operates through ethical relations and the dialectic of representation which operates through language. Each of these are dependent on the other, but are associated with different motives that transcend the motives of satisfying appetites and avoiding aversions identified by Hobbes. On the basis of these, Hegel argued we can identify rational progress in history as the significance and freedom of all people are increasingly recognized through art, history, religion and philosophy, that is, Absolute Spirit, and then embodied in institutions and practices, that is, Objective Spirit. In the modern world, recognition is institutionalized in the family, based on love, in the economic institutions of civil society, including corporations (trade unions and professional bodies) through which workers protect their livelihoods and gain recognition for the significance of their work, where recognition takes the form of rights, and then in the institutions of the State (equivalent to the Greek polis) which unifies the principles of the family and civil society to achieve solidarity, according people and these institutions due recognition through the laws it promulgates and enforces and through the public institutions financed and sustained by it. The State in this sense gives a place to the market, but ensures through its institutions that it functions for the common good and recognizes the significance of each institution and its members and each individual as well as the whole community, providing the conditions for families, institutions and communities uncorrupted by calculative reasoning to flourish.

While Hegel ended up totally subordinating diversity to his geometrized form of dialectics, upholding a monologic historical narrative of humanity that reduced individuals to instruments of the World-Spirit, Schelling resisted this [14, p. 170ff.]. He gave a place to individual freedom, defended the cognitive status of art as equivalent to that of philosophy, and called for the development of an international body to guarantee the autonomy of nations and defend them against aggression, anticipating the League of Nations and the United Nations. To defend his ethics and political philosophy and his conception of humans on which this was based he rejected Newtonian cosmology and called for the development of a new physics that would enable humans to be understood as having evolved as a form of life within nature, which he held to

dynamic, creative and intrinsically valuable. This helped inspire thermodynamics, field theories in physics, the notion of emergence through limiting activity, with organisms defining their environments as their worlds. C. S. Peirce, who characterized himself as a Schellingian of some stripe, showed how the emergence and evolution of life is associated with the emergence and development of semiosis, the production and interpretation of signs, accounting for human culture as a complex form of semiosis involving symbols. Schelling argued that humanity is evolving towards a global consciousness, integrating the cultural achievements of all past civilizations, but understood the movement towards this through a dialogic narrative in which all people in all societies would participate in its development.

Rethinking communitarianism through ecology and ecopoiesis

Ecology as it has developed and served to reformulate our understanding of history is really the realization of Schelling's pioneering work. Once this suppressed tradition is recognized it is a fairly simple matter to appreciate that through ecology, giving a central place to the notion of ecopoiesis as the basis for radically extending Aristotle's understanding of politics and all subsequent developments of political thought in the communitarian tradition is provided. Taking ecology as the starting point for recovering and developing this tradition, conceiving humans in a way that does justice to the insights of Aristotle, Herder, Hegel and Schelling, not only puts the global ecological crisis at the centre of the picture, unifying all those threatened by it against the current world elites and involves the total rejection of the dualism of modern civilization that has reproduced oppression over and over again.

Ecopoiesis as 'home-making' is the process of creating or augmenting the conditions for the flourishing of life, that is, for realizing the potential to augment the conditions for life, and as such, can be taken as a generalization and development of Aristotle's first principle of politics as providing the conditions for achieving eudaimonia. Accepting that we are components of ecosystems, human and non-human, involves appreciating that

in this quest we are participants in the self-creation of these ecosystems. To characterize this as *oikeios* implies recognition that external nature and the socio-economic order of which we are part are co-producers with us of these conditions or homes, even when this is denied or misunderstood, as it tends to be in the capitalist world ecology with its dualism between Society and Nature and associated commodity fetishism. While the resulting *oikeios* might benefit some of the human agents involved in its production, it could be damaging the broader ecosystems making up this external nature, just as cancer cells in a body can produce an environment suitable to their flourishing, resulting the death of the organism of which they are a part.

Appreciating this possibility indicates what should be produced and this also shows how politics should now be understood. For Aristotle, the good life involved people realizing their highest potentialities to participate in and advance the life of the polis, providing the conditions for such a life. For Herder it involved people realizing their unique potential defined initially through their national (and civilizational) culture to augment humanity. Hegel argued that the Greeks only recognized the significance and freedom of some people. In the modern world, the significance of everyone is recognized, and also the diversity of roles in society and the diversity of life conditions required for their flourishing. This is associated with sub-communities, including corporations, trade unions or professional bodies and local communities within broader community of the State. Self-realization involves ecopoiesis as maintaining and developing the conditions for individual self-realization, but also the conditions for these sub-communities and their relationship to each other through which the conditions for individual self-realization are provided. We can now conceive eudaimonia and self-realization as ecopoiesis, fulfilment in life through augmenting the conditions for life, including the possibilities for such self-realization, of both oneself and the communities of which we are part, including nations, civilizations and humanity as a whole. These should not be understood separately but as conditions for and components of each other. The development of humanity through history and within each community involves participating in the three dialectical patterns identified by Hegel, of representation through language and other symbolic forms

striving for truth, including artistic truth, mutual recognition through institutions embodying a commitment to justice, and labour or work using and developing technology to produce the conditions for living and having the means to participate in community life. This can be characterized as liberty. In opposition to the notion of liberty as freedom from every constraint, which inevitably involves those with power enslaving others, liberty so understood should be seen as not being dependent upon those who can harm one (the Ancient Roman conception of liberty) and having the conditions to live ethically, realizing one's potential in pursuing truth, justice and liberty, free to challenge defective beliefs, practices and actions without fear of retribution, and room to be technologically innovative and to develop new organizations. It is in relation to these quests that 'rights' should be recognized — for instance, the right to economic security. Ecopoiesis should encompass all these quests.

Schelling also called for peace between nations through international organizations protecting countries from aggression, that is, providing the conditions or homes for countries to realize their potential through these dialectical patterns. And he recognized that humans are part of and participants in nature, and that nature apart from humans has intrinsic significance. Developing this claim through ecology, self-realization can also be taken to include people, both as individuals and as organizations and communities, living in a way and developing people's character so that they augment the life of the broader human and biotic communities of which they are part. 'People' involved in the quest for such self-realization can be understood as individuals, but also as communities and as communities of communities, including nations and ranging up to the whole of humanity. Ecopoiesis should include the 'homes' of nations, a world order in which countries are safe from invasion or efforts of other countries to destabilize, intimidate and corrupt them and then impose comprador elites.

Such self-realization through ecopoiesis has to be undertaken by people while involved in the continual production, reproduction and development of these communities at all levels. Some of these are bound to be in some degree of conflict, with some destroying the conditions of their own and other's existence. Ecopoiesis involves the struggle to deal with such conflicts, requiring creative efforts through dialogue and the means

for such dialogue to develop forms which avoid these conflicts and self-destructive dynamics. Central to ethics is how to deal with situations where success in augmenting the conditions of oneself or one's immediate community involves being destructive of others, including broader communities of which one is also a part. Dealing with such problems cannot be just a matter for individuals as isolated actors. It inevitably involves developing new relationships to others, new communities and new institutions that can avoid such destructiveness. Institutionalist economics provides guidance for thinking about what institutions are required to control markets to ensure they serve the common good and guarantee people's freedom to realize their potential, as Karl Polanyi [7] and Ruslan Dzarasov [10] among others have argued. Statecraft from this perspective involves advancing the conditions for life in one's own country in a way that augments the conditions of other countries to augment their ecosystems. Economic development through relations with other countries can be designed so that these other countries also develop their economies through these relations. It is necessary to acknowledge the need for defence, but this can be undertaken in a way that does not threaten other countries and augments institutions designed to maintain global peace. Acting according to such principles illustrate ecopoiesis in practice.

Creating and developing such institutions must inevitably involve political struggle, which also involves envisaging what kind of future we should be striving to create that can inspire others to unite and participate in creating this future and working out what are the paths that need to be taken to realizing it. These paths have to involve creating the conditions, niches, or homes for further efforts by individuals and countries to advance this quest. Ecopoiesis, providing these homes, is central to developing these paths, providing the conditions for other people, communities and organizations to advance this quest. The quest to avoid global ecological destruction understood in this way can be characterized as the quest to create an ecological civilization. I have suggested the quest for this future be formulated as a dialogic grand narrative, with the notion of ecopoiesis providing a practical way of thinking about what is involved in providing and developing the conditions for participation in advancing this grand narrative.

Conclusion: Creating an ecological civilization

It should not be difficult to see that *ecopoiesis* so understood brings into focus and clarifies the broad counter-hegemonic project of overcoming the logic of the capitalist world-system and liberating people from destructive market imperatives and the macroparasites generated by these imperatives. The defeat of this counter-hegemonic project in the 1970s with the triumph of neoliberalism appeared to have been permanently cemented with the collapse of the Soviet Union in 1991 and the end of the Cold War, which President George W. Bush claimed USA had won. American ruling elites then set about maintaining a unipolar world, with USA setting the rules for all countries, which USA itself did not follow. From the perspective of world-systems theory, USA had achieved hegemony and has been using this to exploit the resources of the entire world, in the process, generating a hypercoherent elite which is playing the major role in creating a global ecological crisis. The rise of China has challenged this hegemony, but USA with 870 military bases around the world and controlling oceans with its navy is still the most powerful country in the world. The continued development of China, with its Belt and Road Initiative, allying itself with other BRICS countries against the G7 and NATO aligned countries, has destabilized this monopolar world-order. It is possible that China could eventually replace USA as the dominant hegemonic power within the capitalist world-system. While possibly being less oppressive, this by itself would be unlikely to solve the global ecological crisis, except perhaps by provoking a nuclear war. The power relations driving ecological destruction would still be in place. The alternative is to transform this world-system with its hierarchical structure of exploitation with its division between core, semi-peripheral and peripheral regions of the world-system, into a multipolar world, liberating all of humanity, understood as communities of communities in all their diversity, creating a global ecological civilization.

What I have tried to show in this paper is that through rethinking communitarian ethical and political philosophy from the perspective provided by ecology, incorporating the notion of *ecopoiesis* and rejecting at its foundation the dualism that has afflicted European culture, this is a realistic possibility. Ecological civilization involves

creating a multipolar world without hierarchies rather than a monopolar or bipolar world. This goal should prevent rivalries between oppressed people that could be exploited by the current ruling powers. It is important, for instance, that China and India, not to mention Russia, Pakistan, Indonesia, Vietnam, Iran, Brazil and South Africa, all severely threatened by global warming and US aggression, overt, or more commonly, covert, are allied with each other. Rejecting homogenization, the quest for ecological civilization will involve different regions and countries of the world, with very different histories, having different strategies to achieve this. However, the notion of ecological civilization provides a framework for these different regions and countries to appreciate their common interests while enabling them to understand each other's interests and to deal with conflicts between them through diplomacy. This is of central importance for challenging dominant powers which, as in Ancient Rome, generally follow the principle of divide and rule, especially when they are hypercoherent and have ceased to rule for the common good, as is clearly now the case. The current ruling elites are not only not ruling for the common good, but through their neoliberal philosophy, have claimed that even striving for the common good is oppressive.

As I have presented it, ecological civilization need not be a challenge to USA as such, or to its European and Anglophone allies. USA was founded on rival philosophies, being influenced by Roman Republicanism as well as the Lockean tradition of possessive individualism sanctifying rights to property. The former assumed a form of communitarianism that made USA receptive to Nineteenth Century German ethical and political philosophy. This was manifest in the Idealist philosophy of Josiah Royce and the pragmatist tradition of philosophy which, through the influence of John Dewey, strongly influenced the New Dealers promoted by Franklin Roosevelt. These were really social democrats committed to global justice. Initially USA supported social democracy in countries such as West Germany and Austria, although Cold War warriors tried to subvert such developments. The Lockean tradition revived by neoliberalism, which is really committed to rule by oligarchy, has resulted in the growth of a class of macroparasites associated with the military-industrial complex, the financial sector of the economy and managerialism [17]. With neoliberalism, this class has effectively destroyed the

conditions for democracy in USA. Between 1989 and 2018, the top 1% of Americans increased their wealth by \$21 trillion, from \$8.4 trillion to \$29.5 trillion, while the bottom 50% lost \$900 billion, from owning \$0.7 trillion to being indebted by \$0.2 trillion. The wealthy have used their wealth to further consolidate their power, taking control of both major political parties, most importantly, the Democratic Party, while undermining the economic security of the rest of the nation, which is a condition for people to function as citizens of a democracy. This is combined with US foreign policy committed to having the entire world fear

and obey American power (to use the language of Hobbes), which is inimical to their ruling elites' proclaimed commitment to freedom and democracy [4]. Neoliberalism is the betrayal of the ideals of the founding fathers of USA and a betrayal of the achievements of the New Dealers in developing the welfare state, redistributing income and wealth, and establishing the United Nations. Their ideals could and should be recovered and revived by embracing the quest for an ecological civilization to replace the rule of these oligarchs and those who have aligned themselves with them, in USA, as in everywhere else in the world.

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ECOLOGICAL CIVILIZATION, ORGANIC-PROCESS THINKING AND THE FUTURE OF CHINA IN THE GLOBAL CONTEX



ZHIHE Wang

Ph.D, Director of Institute for Postmodern Development of China, Co-director of China Project, Center for Process Studies (Claremont, CA, USA)



MEIJUN Fan

Ph.D, Co-Director of China Project, Center for Process Studies (Claremont, CA, USA)



JUNFENG Wang

Ph. D, Assistant Researcher, Wenzhou Administrative College, China

Abstract. For all of its numerous benefits, modernization is a double-edged sword. After wholeheartedly embracing Western-style modernization in the 20th and 21st centuries, China has achieved astonishing world-renowned achievements, most notably in terms of its rapid economic growth and development. However, contemporary China has had to cope with many of the bitter aftertastes of the pill of modernization, especially in regards to the serious ecological crisis faced by most developed countries. In order to avoid the fate of self-destruction of both China and the wider world, a new civilization — ecological civilization — is urgently needed. Different from industrial civilization that holds in the highest regard all things related to machines and tools, an ecological civilization is a civilization that respects nature and aims for the common good of humans and nature. It is the transcendence of modern industrialization, and thus requires a great all-round transformation. Organic-Process thinking can provide a theoretical framework for such an ecological civilization. Although China has made great efforts thus far to create such an ecological civilization, the road toward building one is long and difficult, as there is a great deal of obstacles that must be overcome to reach this goal; counterattacks by interest groups, a linear notion of development, mechanistic materialism, anthropocentrism, scientism, and compartmentalization in the academic world, among many others. Despite all of these serious obstacles, ecological civilization is imperative for China, as China's future and the health of its environment are closely linked.

Keywords: modernization, industrial civilization, ecological civilization, organic-process thinking, postmodernism

The fading aura of Western-style modernization in China

As is the case in most developing countries, industrial civilization or, modernization as determined by the West, has been an object of admiration and is considered important to learn from and replicate at home. To undergo and realize the process of modernization has been a dream for the Chinese people over the past 100 years. The establishment of Mao's new China in 1949 was done for this dream. Subsequently, Deng Xiaoping's paradigm of reform and opening-up was done for this dream as well. In order to make this dream come true, countless Chinese people with lofty ideals have contributed their hard work, wisdom, blood and even their lives. The world-renowned achievements China's economy has made over the past 30 years have given people more reason to believe that the dawn of modernization is just around the corner.

However, while wholeheartedly embracing modernization, the myriad problems that accompany modernization brings with it has been shocking. According to Pan Yue, a leading figure in China's environmental movement and head of China's Environmental Protection Ministry, 'Five of the ten most polluted cities worldwide are in China; acid rain is falling on one third of our territory; half of the water in China's seven largest rivers is completely useless; a quarter of our citizens lack access to clean drinking water; a third of the urban population is breathing polluted air...' [28] The societal effects of these problems are obvious. In Pan Yue's words, 'Because air and water are polluted, we are losing from 8–15% of our gross domestic product. This does not include the costs for health and human suffering: in Beijing alone, 70–80% of all deadly cancer cases are related to the environment. Lung cancer has emerged as the number one cause of death.' [28]

It is no secret that modernization has caused serious discords in Chinese society. Prof. Lang Ye, former chair of the philosophy department at Peking University summarizes these discords as the following three imbalances: 'One is the imbalance between humans' material life and spiritual life, one is the imbalance of humans' inner life, and one is the imbalance of humans' relationship with nature.' [52] Ms. Liao Xiaoyi, a well-known female Chinese environmentalist,

once painfully pointed out that after experiencing the war via which 'no more country existed except mountains and rivers,' we are now facing a reality where "no more mountains and rivers existed except country." [27, p. v] The unprecedented array of serious crises challenges Chinese to reflect on Western-style modernization and the modern industrial civilization dominated by the West.¹ To us, the concept of "Chinese-style modernization" which the Chinese government recently proposed can be regarded as a signal which draws a clear line with Western-style modernization.

The severe crisis confronting Western civilization itself has directly strengthened the impetus behind the Chinese people's reflection and has helped China deconstruct the halo surrounding this highly-regarded civilization. For Pitirim Sorokin, a leading figure in twentieth-century American sociology and a founding professor of the department of sociology at Harvard University, 'The organism of the Western society and culture seems to be undergoing one of the deepest and most significant crises of its life. The crisis is far greater than the ordinary; its depth is unfathomable, its end not yet in sight, and the whole of the Western society is involved in it. It is the crisis of a Sensate culture, now in its overripe stage, the culture that has dominated the Western World during the last five centuries.' [36, p. 622]

For the authors of the book, *Cobb and China: An Intensive Study of Cobb's Postmodern Ecological Civilization Thought*, modern civilization is one which possesses genes for self-destruction, and ultimately 'is an unsustainable civilization.' [12, p. 24] because this is a civilization in which 'individuals destroy the community, cities destroy the countryside, rationality destroys sensibility, competition destroys harmony, abstraction destroys concrete, consumption destroys life, money destroys spirit, knowledge destroys wisdom, nothingness destroys value, and human beings destroy nature.' [12, p. 24] As a result, we are facing 'the impending suicide of the species. [2, p. 32] Jason Hickel, an economic anthropologist at Goldsmiths, University of London, and the author of *Less is More*, boldly claimed that 'We live in an age of mass extinction.' [21, p. 14]. In order to avoid the fate of human self-destruction, a new civilization — ecological civilization — is urgently needed.

An ecological civilization is urgently needed

What is Ecological Civilization? While “ecological civilization” has increasingly become a buzzword in both China and the wider world, there is no generally accepted definition of it. The idea of “ecological civilization” was first officially proposed by the Chinese government at the 17th Congress of the Communist Party of China in 2007. The goal is to form ‘an energy and resource efficient, environment friendly structure of industries, pattern of growth, and mode of consumption.’ [22] This concept reflects an important change in the Party’s understanding of development. Rather than emphasizing economic growth as the core of development as it did in the past, the Party authorities have come to realize that sustainable development must be based on an understanding of an intertwined relationship between humanity and nature.

At the 18th Congress held from Nov. 8–14, 2012, President Hu Jintao mentioned the term “Ecological Civilization” 15 times in his report. The Congress even wrote the goal of constructing an ecological civilization into the CPC constitution. Hu said, ‘We must give high priority to creating an ecological civilization, work hard to build a beautiful country, and achieve lasting and sustainable development of the Chinese nation.’ [23] Hu gave ecological civilization a prominent position in terms of political priority by incorporating it into the country’s overall development plan together with economic, political, cultural and social progress. In his report, Hu called for efforts to keep more farmland for farmers, and leave to future generations a beautiful homeland with green fields, clean water and a blue sky.

To Xi Jinping, the current leader of China, ‘Ecological civilization represents the development trend of human civilization.’ [51] For Xi, creating an ecological civilization is a cause which ‘benefits both contemporaries and future generations.’ [50] In short, the concept of ecological civilization is spoken of as a responsibility of the Chinese government to future generations and to the natural world.

In Chinese academia, generally speaking, there are two understandings of ecological civilization, the broad and the chivalrous, namely “the repair theory” and “the transcendental view”. Believing that ecological civilization is merely a new dimension of civilization, the “repair theory” argues that

we can repair the relationship between humans and nature within the framework of modern civilization by advocating the construction of ecological civilization. In contrast, “transcendence theory” advocates the thorough transformation of modern industrial civilization from material civilization, spiritual civilization, political civilization, social civilization and other aspects, and ultimately achieves not only the harmony of humans and nature, but also the harmony between and among humans themselves. “Transcendence Theory” argues that ecological civilization will be a brand-new type of civilization that surpasses industrial civilization and altogether represents a wholly new stage of civilizational development beyond the primitive, agricultural, and industrial stages that preceded it. Per the proponents of the transcendence theory, ecological civilization is ultimately an advanced form of civilization [53].

We the authors identify ourselves as adherents of the transcendence school. We regard ecological civilization as a counterattack against and a surpassing of industrial civilization. It is ‘the sum of all material, institutional and spiritual things created by human beings in an ecological production and lifestyle.’ [57, p. 5] For us, ecological civilization is not just about isolated efforts toward reforestation and energy conservation, despite these things being vital components thereof. It is about creating a life-affirming civilization which is entirely different from its industrial predecessor, which regards all things as machines and tools to be used towards an economic end. Ecological civilization is a civilization that enshrines respect for nature and aiming for the common good of humans and nature as key tenets of its underlying philosophy. Too often, affirming an ecological civilization is misconstrued as little more than being conscious of ecological issues, but this is not the case. In fact, ecological civilization calls for profound changes and ‘even significant sacrifices.’ [10] Therefore, ecological civilization is rather an enormous transition for society as a whole. In the words of Dr. Meijun Fan, ‘ecological civilization is a great and all-round transformation.’ [15]

Organic-process thinking and ecological civilization

Since building an ecological civilization is an unprecedented and vitally important cause, it

therefore requires a fundamentally new kind of thinking, as the solidified, static mechanical thinking that serves as the philosophical foundation of industrial civilization has exposed itself as possessing a great deal of defects and has contributed much towards bringing disastrous consequences to both human society and our beautiful planet [11]. We call this new style of thinking “organic process thinking.” This so-called “organic process thinking” is a kind of comprehensive thinking based on process philosophy. It regards becoming, change and creativity as the essential attributes of its ontology, and regards organic relationships as being constitutive of all things. “Organic process thinking” can be divided into broad and narrow senses. In its broad sense, organic process thinking refers to all worldviews both ancient and modern, which emphasize becoming and changing over static being, interrelationship over self-contained substance. Organic process thinking in the narrow sense refers to the process philosophy or philosophy of organism founded by Alfred North Whitehead (1861–1947), a British mathematician, physicist and philosopher, and inherited and developed by John Cobb Jr., Charles Hartshorne, and David Griffin.

Organic process thinking regards the universe as an organic whole, ‘viewing the world as an interconnected system.’ [33] The universe as a whole is viewed as a seamless web of interconnected events, none of which can be completely separated from the others. ‘Everything is connected to everything else and contained in everything else.’ [31, p. 33] Every entity in the universe is regarded as ‘a process of becoming that emerges through its interaction with others.’ [31, p. 33]. Organic process thinking stresses that we are not only deeply connected with other people, but with everything else in the universe. As such, the interconnection and interdependence of all things is the core idea of organic process thinking. According to futurists Rick Smyre and Neil Richardson, ‘Probably the most important ongoing historical transition is the shift from the core idea of independence to the core idea of interdependence.’ [35, p. 94] This transition marks a journey to realize that all life forms, both human and non-human, are interconnected together, they are co-rooted in an ever-unfolding meaningful, co-creative process.

Organic process thinking has a profound philosophical foundation in China, because, being the nation of the *Book of Changes*, the Chinese nation can be said to be ‘a nation of process thinking.’

[42] To Joseph Needham, the Chinese people’s view of the universe and nature are “organicist”: ‘The mechanical view of the world simply did not develop in Chinese thought, and the organicist view in which every phenomenon was connected with every other according to hierarchical order was universal among Chinese thinkers.’ [32] According to the investigation of the famous comparative philosopher Roger Ames, “processual cosmology” or “correlative cosmology”, in his terms as “common sense”, has a long history in the Chinese cultural tradition [1, p. 41].

In China, the correlative thinking that permits insight into and productive participation in this world of alternations, with its origins dating back at least to the Shang dynasty, is ‘a dominant modality of thinking.’ [1, p. 48]

For Roger Ames, such a correlative cosmology is “an Ecological Cosmology” [1, p. 61], in which the world is regarded as “an invigorated world”. Therefore, there is no place for dualism or *dichotomous thinking in such an ecological cosmology*. It is not intended to conceptually separate living beings from their environment. There is no ‘any final boundary between the sentient and insentient, animate and inanimate, living and lifeless.’ [1, p. 62]

Ames believes that interconnected thinking can allow people to have a deep understanding and sense of participation in this ever-changing world. As a “treasure”, China’s philosophy of interconnectedness ‘offer[s] opportunities to reframe our views of reality in a way that may be much more in service of well-being on a healthy planet.’ [15, p.75]

With the expansion of globalization and the widespread application of the Internet, today’s world has progressively become a global village and countries are increasingly becoming a community with a shared fate. According to the authors of *What is ecological civilization?* ‘Ecological civilization is not just about the harmonious coexistence of human beings and nature. It also requires humans to live in peace with each other so that all life can flourish.’ [3, p. 11] In other words, ‘If modern industrial civilization is a civilization that favors fighting and has faith in “Survival of the Fittest”, then a postmodern ecological civilization should be a civilization that cherishes harmony and “Survival of the Harmonious.”’ [13] Therefore, promoting organic process thinking is not only a need of our times but is also a need of an ecological civilization.

In addition to its growing prominence in China, organic process thinking has also received increasing attention in the contemporary West, as evidenced by the “process turn” or “relational turn” taking place in the contemporary West [45]. A recent study has shown that organic process thinking has recently gained increasing prominence across academic disciplines in an attempt to understand complex phenomena in terms of constitutive processes and relations. Interdisciplinary fields of study, such as science and systemic technology studies (STS), the environmental humanities, and post-humanism, for example, have started to reformulate academic understanding of nature-cultures based on relational thinking, and is said to help ‘overcome the current fragmentation in academia and science.’ [7] Since interdependence is a core attribute of life, and mutual achievement is the sublimation of life, organic process thinking calls for a “consciousness of sharing destiny.” The so-called “consciousness of sharing destiny” is to realize that we and others share the same fate, breathe the same breath, share the same destiny, share weal and woe, suffer both losses and prosperity [46].

It can be said that, according to organic process thinking, the interconnection and interdependence of all things is the reality of the universe. Without such a cognitive awakening, it is impossible to build an ecological civilization.

The future of China

With regards to the future of China, the world's largest developing country, with a population of over 1.4 billion people and a history of more than 5,000 years, no one can offer an accurate prediction. Nevertheless, we believe that one thing is certain; that is, China's future and the destiny of the ecological civilization ideal are closely linked. If China's efforts towards building ecological civilization succeed, China will prosper. Conversely, if China fails to transform itself into an ecological civilization, China will fail, as the paradigm of modern industrial civilization is a dead end. As such, does the ecological civilization project have a bright future in China? The answer is not straightforward. Different people may offer different answers to this question.

In contrast with many of their Western contemporaries who are bearish on China's general

prospects in the coming years, most process thinkers and constructive postmodern philosophers have been optimistic about China's future. John B. Cobb, Jr, ‘one of the most important living philosophers residing in the West’ [40, p. 4] is an outstanding representative in this regard, who has remained steadfast in claiming that ‘the hope of Ecological Civilization lies in China.’ [5] In an interview with the chief editor of the *Journal of China Executive Leadership Academy Pudong*, he firmly stated that, ‘China is the place most likely to realize ecological civilization in the world today.’ [9]. David Ray Griffin, a prestigious process philosopher and a leading figure in the constructive postmodernist movement also emphasized that ‘there is little doubt that China offers more hope than the US in creating an ecological civilization.’ [20] Process thinkers' views on the matter of ecological civilization and China's role in creating it have stoked widespread controversy among the Chinese people. Some people in China greatly appreciate their ideas, while others oppose them. Some critics in China have claimed that Dr. Cobb ‘knows little about China’ [29], while others have even accused him of ‘trying to fool China in the name of advocating ecological civilization in order to contain China's development.’ [12, p. 176]

What led these world-class thinkers to make such positive judgments, given that China still faces a wide range of rigorous problems, including serious pollution, economic inequality, censorship, and human rights violations, as repeatedly reported every day by some Western mainstream media? Process thinkers like Cobb and Griffin have provided a number of arguments to support their points of view. Some of the reasons they cite as evidence to support their belief in China's potential for building an ecological civilization include, but are not limited to, the fact that China's political system, namely its socialist system, aims at serving the greater good of the people and the nation, rather than being beholden solely or disproportionately to the interests of money and the classes who possess it; the fact that Western-style modernity only has around 100 years of history in China and its ideological roots have not yet penetrated too deeply into Chinese society and thought; the fact that Chinese traditional culture and philosophy, which are themselves (as previously demonstrated) inherently process thought-oriented, still exist and have strong vitality in Chinese society; and the fact that China still has millions of rural villages which house

a substantial proportion of China's population, unlike the West where the vast majorities reside in urban areas [22, pp. 176–184].

Among these reasons, one of them is particularly worth expanding upon further; that is, the fact that process-oriented Chinese traditional culture still exists and has vigorous vitality and influence among the Chinese people. For Cobb, Chinese culture as a process-oriented culture 'is an ecological culture at root', which 'has the power to save the world' [6]. With regards to the process orientation of Chinese culture, Jay McDaniel, a distinguished process philosopher, provides an eloquent analysis: 'Philosophical Daoism speaks of the universe as a flowing process of which humans are an integral part and encourages them to dwell in harmony with the larger whole.' [30] At the same time, 'Chinese Buddhism in the Hua Yen tradition gives us the image of a universe in which every entity is present in every other entity in a network of inter-existence or inter-being.' [30]

As a dominant ideology, Confucianism itself also possesses a deep ecological dimension since it confirms the relationality not only between and among humans but also between humans and nature. According to Mary Evelyn Tucker, a Senior Lecturer at Yale University with appointments in the School of Forestry and Environmental Studies, and a leading figure in Confucian studies in the West, 'From the classical texts to the latter neo-Confucian writings there is a strong sense of nature as a relational whole in which human life and society flourishes... More importantly, for the Confucians nature is seen as dynamic and transformational.' [39, p. 130]. The acceptance and appreciation of Whiteheadian process thought in contemporary China has proved from another angle that China has fertile soil for the flourishing of organic-process thinking.

In addition to the establishment of more than 30 centers devoted to the study of process thought in China, almost all of Whitehead's works have been translated and published in China; Hundreds of articles on process philosophy, constructive postmodernism, and organic Marxism have been published in China; More than a hundred conferences on process thought were held in China in recent years [47]. More importantly, organic process thinking has been creatively applied in a variety of fields and disciplines, and accordingly, many new branches of process thinking have emerged, such as process agriculture, process poetics, process jurisprudence, postmodern

agriculture, constructive postmodern community, organic education, Tongren Education, Retu Education, organic Marxism, Organic Aesthetics, postmodern ecological civilization, organic diplomacy, organic linguistics, and a number of others. On Wednesday, November 14, 2011, *Wenhui Daily*, a highly influential Chinese daily newspaper, published an article by Yijie Tang, professor of Peking University and a leading scholar in Chinese philosophy, in which he wrote: 'The influence of process thought or constructive postmodernism has kept increasing in China. Two broad intellectual trends are influential in China today: (1) the zeal for 'national essence' or 'national character,' and (2) 'Constructive postmodernism.' These two trends can, under the guidance of Marxism, not only take root in China, but so develop that, with comparative ease, China can complete its "First Enlightenment" of modernization, and also quickly enter into the "Second Enlightenment", becoming the standard-bearer of a postmodern society.' [37].

It is worth noting that this statement by Professor Tang was subsequently selected as "one of the most valuable points of view in 2012 in China." [4]

Process thought or constructive postmodernism² is regarded by some Chinese scholars as 'not only the most dynamically and creatively advanced philosophy in the nowadays world, but also a whole new guidance theory to newcomers striving for modernization to achieve their goal preferably.' [48] To Peking University professor Danyun Yue, a leading figure in comparative literature in China, 'Constructive postmodernism which provides positive answers to possible human future life is an effective cure to the problems facing the world.' [54] David Griffin is also convinced that constructive postmodernism has a very important role to play in overcoming the anthropocentric worldview and values associated with modernism because 'constructive postmodernism is ecological in the real sense since it provides support for the ecology.' [19, p. xi]. This explains why Chinese environmentalists 'prefer constructive postmodernism as represented by David Griffin' [55], said Fanren Zeng, former president of Shandong University, who is a co-founder of Eco-aesthetics in China. To Shenzhen University professor Xiaohua Wang, a distinguished Chinese ecological thinker, 'the fate of human beings and the whole eco-system will be determined by whether the postmodern turn succeeds.' [43]

‘Which direction China should take if she does not want to pursue hegemonism? Which kind of culture will benefit both China and the world?’, asked Prof. Yijie Tang. For Tang, ‘I think going to constructive postmodernism is a better choice.’ [38]. This is without doubt the better choice because Constructive Postmodernism can help China avoid the destructive effects of modernization by learning from the mistakes made by the Western world in its pursuit thereof and utilize these lessons to creatively build a new civilization — ecological civilization — by integrating the best aspects of modern civilization and traditional culture. With the ongoing revival of Chinese traditional culture, which is happening in no small part due to active promotion from the Chinese government, we are convinced that process studies in China is destined to have a brilliant future. Together with Chinese traditional culture, it will provide a strong theoretical underpinning for an ecological civilization. Herein lies another reason for people to have hope in China's future as an ecological civilization.

Regarding the significant number of problems China presently faces, it must be said in no uncertain terms that ‘China's problems are real.’ [25] But China's unremitting efforts and genuine drive to create an ecological civilization are just as real. As evidenced by China being the nation which produced such foundational works as the *I Ching (The Book of Changes)*, organic process thinking is already embedded in China's civilizational and philosophical DNA. In the words of John Cobb, for Chinese ‘[t]here is no bias towards process and becoming.’ [6]. This reflects that the Chinese people know that change is not only possible, but is an essential attribute of all that exists in our universe.

The great efforts the Chinese people have made thus far to create an ecological civilization are not only reflected in the fact that “ecological civilization” is written into both the Party Constitution of the Communist Party of China and in the national constitution of the People's Republic of China, and has become ‘a central policy objective of the government’ [17], not only in the fact the performance of government officials in China will no longer be evaluated based on GDP, nor only in the facts that ‘China now has close to half of the world's installed photovoltaic capacity. Over half of the world's new energy vehicles run on roads in China, and China contributes one-fourth of increased area of afforestation in the world.’ [49].

This is also reflected in the ecological awakening of ordinary people. To cite one example of this growing phenomenon, at a conference on ecological civilization and zero-pollution villages held in 2019 in Xiaotangshan, Beijing, 300 participants, consisting of villagers, village leaders, NGO employees and local government officials, left not one single empty mineral water bottle after a two day-long conference, as many of the participants opted to bring their own water bottles instead. This deeply impressed Dr. Cobb and ourselves who personally participated in this event and delivered speeches at it.

The Chinese business community has also started taking action to make its own unique contribution to the cause of ecological civilization by making an ecological turn in their business practices, with the stated goal being ‘to promote the green transformation of China's economy and the green economic development of the world.’ [18] The Alashan project is but one concrete example of this trend; on June 5, 2004, one hundred noted entrepreneurs established the Social Entrepreneur Ecology NGO, or “SEE”. The 100 initiators of this organization each promised to contribute 100 thousand RMB per year to deal with the sand-dust storms that plagued the Alashan region of Inner Mongolia. The participants in the project have committed 100 million RMB to this undertaking over the span of 10 years [44]. The Alashan project and many other initiatives like it signal something new: ‘Chinese entrepreneurs beginning consciously to shoulder social and ecological responsibility.’ [4]

Li Wenliang's Taiwei company also exemplifies this new entrepreneurial undercurrent. Over the years, Li Wenliang, the founder of Taiwei (Dongguan Taiwei Electronics Co., Ltd), a private company with 500 employees located in Dongguan, Shenzhen in Guangdong province, conducted extensive studies and research in the developed Western countries and ultimately recognized the unsustainability of the indulgent hedonism prevalent in mainstream Western societies. Recognizing the necessity to return to a more sustainable model of economic development, Li integrated the principles of the Chinese cultural value of “*Tian Ren He Yi*” (Harmony between Heaven, Earth, and Humans) into the core values of the company in 2005, and began actively exploring a philosophy of modern business management with a Chinese-style approach. After a decade of exploration, Li and his team developed the 51–25–24

ownership structure, a mechanism of corporate governance embodying “*Tian Ren He Yi*” and advocating sustainable development. The 51–25–24 mechanism entails the conversion of 51% of the company’s equity into a public welfare fund, making Chinese society the majority shareholder of the enterprise and aligning business practices and policy with the will of nature — *the Way of heaven, or “Tian Dao”*. Among other things, this policy offers subsidies for employees to consume organic food, promotes a virtuous cycle of organic cultivation, and supports regular rural service programs. Additionally, 25% of the equity is transformed into employee-operated equity, fostering a sense of unity among all employees. The remaining 24% is retained as capital equity, with original shareholders becoming the third-largest stakeholders. A board is formed by combining capital and operational directors, creating a corporate governance structure which emphasizes collective prosperity and ecological values.

In order to provide organic food for employees’ three meals a day, Taiwei has established many organic farms all over China. Not only that, Taiwei has also joined forces with other enterprises to promote rural revitalization in China, encouraging some farmers to adopt organic farming and promoting the sustainable development of agriculture and rural areas. Li Wenliang believes that eating organic, growing organic, and living an organic life are a golden key to solving social problems. For him, ‘The countryside is the lifeblood of the city. Agriculture is the lifeblood of industry. Organic farming is the lifeblood of agriculture.’ [26]

The aforementioned examples illustrate that China, despite the numerous challenges it faces in this regard, is indeed walking the path toward an ecological civilization. As Dr. Cobb stated, ‘We can have considerable confidence that China as a nation is genuinely committed and that the people share a hope for becoming an ecological civilization.’ [40, p11] However, it would be naive and wishful thinking if were to fail to realize the immense impediments that lie on the road to ecological civilization in China. Putting aside the fact that the international atmosphere, which continues to be dominated by industrial civilization and its law of the jungle, remains resistant to ecological civilization, even within China itself the cause of ecological civilization has encountered significant resistance. Among these obstacles, of course, the resistance from special interest groups

is a particularly acute one. But various obsolete worldviews have also played a significant role in opposing the construction of ecological civilization. The following viewpoints represent some of the primary perspectives in this regard:

(1). Linear notion of development: Influenced by orthodox Marxism which places emphasis on the development of advanced productive forces and treats history as a linear process, i.e. the notion that China needs to fully realize industrialization or modernization first and address ecological issues to create ecological civilization later, many Chinese people believe that history must inevitably follow a linear model of development through successive defined stages of increasing sophistication: namely, premodern, modern, and postmodern. They believe that China must first become modern before becoming postmodern. This belief is squarely based on such a linear conception of progress, and from this ideology the idea of “pollution first, treatment later” gained some legitimacy [24].

(2). Mechanistic materialism: Some scholars in China are still deeply influenced by mechanistic materialism which rests on the assumption that ‘there is nothing other than matter.’ [20] Accordingly, a mechanistic view of nature denies nature any purpose or capacity for self-movement. Nature is regarded as something passive, “a mere resource pit” for human beings’ use [16]. It is obvious that mechanistic materialism and anthropocentrism cohere as philosophies, and together constitute a strong ideological resistance to ecological civilization.

(3). Scientism: Closely related to mechanistic materialism, scientism is still very powerful in China due to the deep influence of China’s First Enlightenment in 1919. The doctrine of scientism, which regards science as the only legitimate form of knowledge and ‘the source of correct knowledge’ [34]. For some scientists in contemporary China, the ecological civilization camp’s call to “revere nature” is “unscientific.” [56].

Apart from the above-mentioned examples of the ideological opposition in China to ecological civilization, compartmentalization in the academic world demands our attention as well. The departments in universities divide scholars into rigid disciplines. Many scholars are reluctant to engage in the type of interdisciplinary and transdisciplinary thinking and engagement that ecological civilization urgently needs. They worry that such

thinking compromises the purity of their respective disciplines or challenges inherent assumptions in ways that impede progress within their areas of specialization.

Although all of these obstacles are quite serious and will prove to be undoubtedly difficult to overcome, ecological civilization is imperative to China. Because China's choice at this historic turning

point would produce a far-reaching impact not only on China itself, but also on the wider world. For Cobb, if China makes the right choice and works hard to forge ahead toward ecological civilization, 'it may yet lead the world, indeed, save it.' [8] In this sense, China's ecological civilization is indeed our common great cause which is worth our unwavering pursuit.

Notes

- ¹ Among those writings on reflection on modernization, Wu Guosheng's *Worries about modernization* (Life·Reading·New Knowledge Sanlian Bookstore, 1999) and Wen Tiejun's *Deconstructing Modernization* (Guangdong People's Publishing House, 2004) can be regarded as representatives.
- ² Alfred North Whitehead wrote a book with the title "Science and the Modern World" that celebrated the accomplishments of modernity but showed that it was also coming to an end. There and in subsequent writings he described the shift, for example, from mechanistic to organic thinking. His followers spoke of his proposals as "postmodern". French intellectuals, quite independently, used the term to identify ways of deconstructing modern thought. To emphasize that Whitehead's purpose is to build on a critical evaluation of modernity and to go beyond it, his followers called their program "constructive postmodernism."

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SETTING THE COORDINATES FOR AN ECOLOGICAL CIVILIZATION



JEREMY Lent

is an author and speaker whose work investigates the underlying causes of our civilization's existential crisis, and explores pathways toward a life-affirming future. His award-winning books, "The patterning instinct: A cultural history of humanity's search for meaning" and "The web of meaning: integrating science and traditional wisdom to find our place in the universe", trace the historical underpinnings and flaws of the dominant worldview, and offer a foundation for an integrative worldview that could lead humanity to a flourishing future. He has written extensively about the vision and specifics of an ecological civilization and is founder of the Deep Transformation Network, an online global community exploring pathways for a deep transformation toward a life-affirming future on a regenerated Earth.

Abstract. An ecological civilization represents an exciting potential future of human flourishing on a regenerated Earth. It would require a transformation of our current economy, politics, and mainstream culture, leading to a fundamentally different civilization based of different values, goals, and collective behavior. An ecological civilization arises from modeling human society on nature's wisdom—the same core principles that have kept natural ecologies healthy and resilient over millions of years. It is a vision inspired by life-affirming groups worldwide—Indigenous, political, community-based, and spiritual. While it's visionary and seems a long way off, it may be closer than many people realize.

Keywords: ecological civilization, The Three Horizons model, fractal flourishing, symbiocene, The "Gross National Happiness" index, commons, universal basic income

The three horizons

Imagine that you're embarking on a long journey, walking through rocky terrain. You need to keep your gaze down, focusing on the next couple of footsteps to make sure you don't trip. 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 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.^[1]

The Three Horizons model is invaluable when applied to the global cultural and economic situation the world faces today. There is no end of 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 pledges 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.^[2]

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. 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."^[3]

As we careen on an accelerating path to disaster, first horizon thinking can't redirect us, and second

Planetary Boundaries

after Johan Rockström, Stockholm Resilience Centre et al. 2009

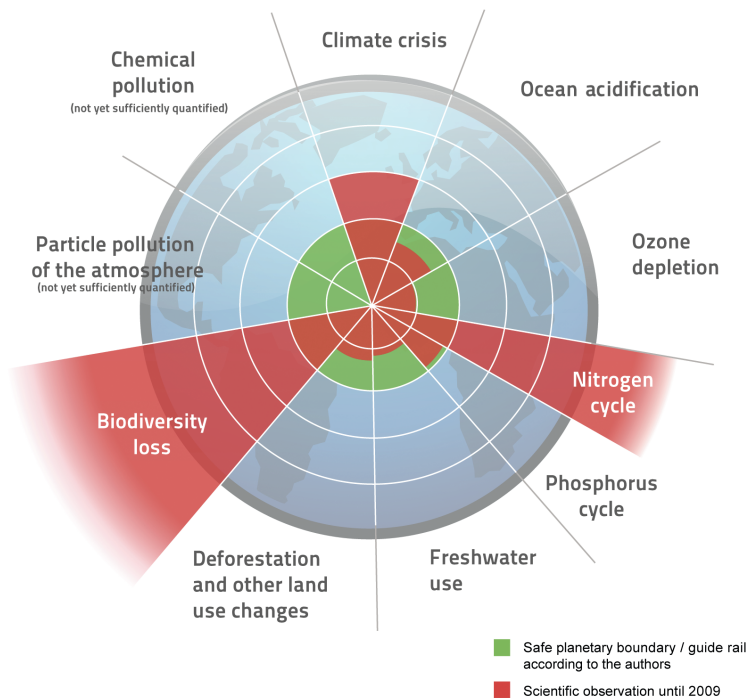


Figure 1. Johan Rockström, et al. (2009). A safe operating space for humanity, *Nature*, 461: 472–75

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 seventeenth-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 interconnect- edness between all human beings, and between humanity and the natural world.^[4]

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. 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.

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.^[5]

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 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.^[6]

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 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.^[7]

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.^[8]

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.^[9]

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 build 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.

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 — would add two critical realms to this framework: households and the commons.^[10]

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 discussion because, like household work, it doesn't fit into the classic model of the economy. But the global commons belong 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. 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.^[11]

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 re-use 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 twenty-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 ascendancy as a crucial part of human flourishing. Education would be re-envisioned, its goal transformed from preparing students for the corporate marketplace to cultivating the wisdom, discernment, and emotional maturity required for students to fulfil 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 which 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.^[12]

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.^[13]

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 hundred 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.^[14]

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 six thousand organizations worldwide, including many governments. In China, leading thinkers espouse a New Confucianism, calling for a cosmopolitan, planetary-wide ecological approach to reintegrate humanity with nature. 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.^[15]

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 and many others, millions of schoolchildren worldwide are rousing their parents’ generation from their slumber. Meanwhile, the Stop Ecocide campaign to establish ecocide as a crime prosecutable under international law is making important strides, gaining serious consideration at 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 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 under way, but we can't see it because we're in the middle of it.^[16]

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.

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[6] 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 in the West 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: Philip Clayton, and Wm. Andrew Schwartz, *What Is Ecological Civilization? Crisis, Hope, and the Future of the Planet* (Anoka, Minnesota: Process Century Press, 2019). For an in-depth study of the global history of the idea of an ecological civilization, see Arran Gare, "Ecological Civilization: What Is It and Why It Should Be the Goal of Humanity" *Culture of Sustainability* 27, no. 1 (2021): 8–23.

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ECOPOIESIS. LIFE AS A RELATIONAL UNIT



LEONARDO Lavanderos

Doctor of Biological Sciences. Academic of the Faculty of Engineering UPLA Chile, Professor of Management and Leadership at the Business School of Tec de Monterrey. Director of SINTESYS Corporation (Santiago, Chile).



ALEJANDRO Malpartida

Doctor of Natural Sciences, specialising in Ecology, Universidad Nacional de La Plata Facultad de Ciencias Naturales y Museo (UNLP-FCNyM). Doctor of Medicine. Faculty of Medicine, University of Buenos Aires (FCM UBA) (Buenos Aires. Republic of Argentina). President of SINTESYS Corporation.

Abstract. The article is interdisciplinary in nature, covering relational cybernetics and epistemology, biology, ecology, and systems theory. The authors define life as a relational unit, *ecopoiesis*, which is a constant spiral dance between differentiation and the maintenance of integrity. Based on the concepts of relational cybernetics, new ecological concepts, the category of *ecopoiesis*, the authors claim that the relation is the basis by which and upon which we say that, as observers, we draw differences and that those differences drawn from the relation are argued as distinctions. Strictly speaking, it is a *triference* since the process implies the one that generates. In this process, information is the first step of *triferentiation*. This leads us to the proposition that all cognitive processes occur in an entity capable of generating *triferences* and processing them as information. On this basis, we have called the process that explains life as a relational unit, *ecopoiesis*, since it is a constant spiral dance between differentiation and the abduction of its complexity.

Keywords: *ecopoiesis*, *autopoiesis*, *entorno*, *triference*, ecology, biology, relational epistemology

In the creature, all is names, maps, and relation names- but still the name of the name is not the name, and the name of the relation is not the relation- even when the relation between A and B is of the kind, we denote B by saying that A is the name of B.

(Bateson, G, and M. C. Bateson)

Introduction

This research work argues that the various explanations about the understanding of life have been absent in relational concepts and the idea of relationship itself. From positivism and the

classical paradigm to the conception of *autopoiesis*, self-organization, the ecological niche and in the use of words such as medium and environment. Thus, counter-intuitively, we maintain that the maintenance of the vital phenomenon has to do with the emerging relationships of the *organism-entorno* unit and not only of any of the terms

of that relationship, nor by transaction, coupling or interaction between them, but as an emergent of a unit that produces the conditions for its own existence. We call this emergent as organization of the unit *ecopoiesis*. For a living entity, its ability to sustain relationships depends on how its relational system links with its material energetic system. This process is defined as *ecopoiesis*. In cultural living units, this process is called *ecosemipoiesis* [11,12].

Entorno and environment should be distinguished as distinct terms (entorno is a Spanish term that refers to that which surrounds and remains). There is no English translation, but it can be understood as that which configures or shapes the body with its surroundings. The environment is made up of all the parameters that an observer distinguishes without taking the organism into account. Also, the environment is everything specified by the organism and expressed through the behaviors that come from the organism–entorno relationship; it is the actual expression of this historical process. Although environment does not explicitly refer to a relationship, it is included in this scope. It has been stated that the environment contains historical processes. Therefore, it is not about the evolution of the individual, the population, or the species, but about the organism–entorno relationship [20]. From the point of view of organizations as cybernetic systems, it has been important to understand the limits and even the metrics of required variety [2] for an organization to remain viable. However, as previously stated in other publications, an organization is not a revolving door, and it is reasonable to think that it generates certain redundancies (noise, unnecessary expenses), to the point of producing some “non-required” variety, initially, until it is necessary for its vital maintenance. However, the increase in non-required variety may draw negative attention to the organization itself, as it feeds on the destruction of the required variety. At that point, the organization undergoes a negative transformation or reaches a threshold of exhaustion, leading to its dissolution. Consequently, we propose to reconsider the idea of entropy in the context of a relational conception in favor of “variety not required” [13]. It is important to clarify that, from this perspective, life is a selective process within a web of possibilities, this process is what “contains” the principle of variety. The latter can be defined as the expression of required variety and non-required

variety. The selective process needs certain levels of non-required variety if they do not destroy the required variety. As an example, we can speak of non-required variety in relation to the presence of cancer cells which contribute to the selective process of the living unit if they do not transform into an alternative development of this unit as they would necessarily be destroying its required variety.

Life demonstrates that it is a continuous quality that has remained independent of probabilistic and physicochemical reductionism. Even the concept of autopoiesis as a living concept [21] maintains the idea of interactions as the primary explanation of life. When talking about metabolic processes within a cell, autopoiesis becomes an important descriptor; however, these metabolic processes must maintain a relationship, their *Ecopoiesis*, which is why we say that “all Autopoiesis is *Ecopoiesis*.” A network can be transformed into a living system only if it can configure its entorno, this implies making its relational system relationally feasible with the system of material energetic sustenance. Therefore, when we say that all autopoiesis is *ecopoietic*, it is because we do not conceive the condition of self-organization without reference to the entorno. It is for us impossible to conceive of organization in the sense of “IPSE” itself.

This is directly linked to a relational process because the unit of reference is no longer the individual organism, but the organism in its entorno, therefore, every process, whether internal or mediated by any structure of an organism, necessarily has to do with the relational process, which as such is *eco-spontaneous*, that is, it occurs freely as processes occur in all units that we clearly understand as open. They are open, not only to these processes, but they are open entropically and communicatively; therefore, we cannot speak of a closure, of a closure, of a totally closed autopoiesis, nor of some kind of coupling, since by being open also the communicative processes generate the messages that allow or facilitate some processes to manifest themselves more than others, as, for example, *epigenesis*, which is absolutely dependent on the *eco-spontaneity*, on the *ecopoiesis*.

To give meaning and purpose to the above, we have followed Morin et al.’s [27] method is a discourse, a prolonged rehearsal of a path that is thought. It is a journey, a challenge, a crossing, a strategy that is rehearsed to reach an end that is

thought, imagined and at the same time unusual, unforeseen and wandering. It is not the flow of a self-confident thought; it is a search that is continually invented and reconstructed (p. 15).

In this search, the research question has been posed, expressed as follows: What prevents me from rescuing the notion of the living, from its objectual and reductionist conception entrenched in the certainty of immutability?

In this context, it seems that we have reached the end of some uncertainties or, more precisely, that we have reached the end of the way of knowing that promised us an immutable narrative of reality and an all-encompassing observer directed at it. Despite all that is involved in questioning this claim, science continues to focus on the need for certainty by referring to the immutability of an object through the concept of permanence to continue to organize certainty in all domains of knowledge. Consequently, truths have been created by attributing their consistency to a representation, a mediator or avatar, an explanatory principle in Gregory Bateson's sense. For example, the creation of variety in relation to entropy is the case of the Anthropocene [30], entropic statistical disorder [25] and information overload. If we add to all this the lines of argumentation followed from the neurosciences, we find that the argumentative scaffolding is mostly built based on objective certainty and its physics [9, 16]. In this sense, explanation is based on molecular action schemes (interactivity), seeking operational closure and the boundary of unity [6]. However, an interaction is not a relationship. The interaction is the observed and argued schema of action, the argumentative plane in which interactivity, causalities and, where appropriate, determinisms are revealed. The relation underlies the argumentative plane, and only aspects of it are distinguished by the observer in his environment; it is the entangled distinction that emerges from the process of triferences (differences of the observer in his environment with his object of knowledge), a process in which we say that an observer is always involved. Those aspects of the relation that enter into the argumentation are certainly not "the relation" [15]. By way of explanation, it is not that the Christmas tree is highly associated with lights, but that interactions with these associations explain the happiness that gathers the family around it. For example, when Allen and Friston [1] propose a theory of minimal slime mould cognition from Lyon's biogenic cognition, di Primio-Lengeler's

modifiable pathways, Bateson's "patterns that connect" framework, Maturana's autopoietic network or Morgan's proto-consciousness and canon, they confuse logical types between interactions with patterns of kinship.

A good example of the epistemological confusion between interaction and relation is Lyon's [17] biogenic cognition. According to the characteristics of the interactivity principle defined by the author, cognition operationally facilitates reciprocal causality relations. This can be interpreted to mean that an observer who observes reciprocal action schemes (bacteria-entorno interactivity) establishes causal relationships for both parties without making explicit the criteria that lead him to establish a relationship that is part of his entorno as an observer. The conclusion is not long in coming: "The equilibrium between the physico-chemical-electrical processes that maintain its organization is therefore the standard objective state of a living system, to which all interactions are calibrated". In other words, it has been argued from a reductionist conception of interactions, coupled with a naive realism or first-order view in which the observer is omnipresent and its narrative invariant. In this sense, cognition has been transformed into an explanatory principle in the Batesonian sense.

This type of mediators, which will be the subject of discussion in this article, builds certainty by condensing the complexity of life into physical formats, as in the case of interactions, which are strategically used isomorphically with relations to adapt them to the statistical states of molecular dynamics.

The thermodynamic law of entropy has cosmic ramifications in the sense that energetic systems, including living, cognitive, technological, and social systems, will inevitably come to an end ("heat death") or, as a principle of biological adaptation, it may allow us to argue that the struggle for existence was a struggle against entropy. All this has happened because the mixture has led to confusion and similarity between the meanings of communication, entropy, and information, to the point of presenting them as homonyms. Although some correspondence can be established, the domain of application and knowledge of these formulas has nothing to do with information or with the semiotic process. Consequently, although a certain mathematical isomorphism can be demonstrated, it is not possible to homologate the concepts. On the other hand, contrary to the

predictions of classical thermodynamics, the vitality of the planet (life) has progressed toward its culmination and continues to do so because the condition of life is to remain out of equilibrium.

The central idea of this article is to reason and explain relational knowledge from its theoretical foundations to establish the concept of Ecopoiesis as the basis of the unity of the living. For this purpose, we have organized it as follows; a brief visit to the idea of complexity, the explanation of relationship and its meaning, autopoiesis, the niche and the ecological unity niche-organism, the medium, the environment, the entorno and ecopoiesis.

The meaning of relational

As a concept and as a category, relation is not new in Western conception; it was present from the beginning, but it is symptomatic that it was considered an accident in classical philosophy. Relation was understood as "relation between" substances, which emphasizes that the category of substance had primacy. Something similar can be said of the Eastern "totalist" view, in which relation certainly has greater relevance but is based on the substantiality of the unique with the dissolution of the individual [20].

In fact, up to now, we speak of relation between, when the relation implies a link that does not require the "between" or even the "inter" as, for example, when speaking of interrelation. In this regard, our desire for certainty often leads us to commit errors, such as attempting to grant an existence to a relation through metaphysics — which is simply the cultural point of reference for an ontology that remains rooted in the object. When establishing the existence of said relation, authors sometimes fail to recognize that their presuppositions are centered around the object or entity, thereby committing the error of attributing existence to the relation. As an illustration, Cassirer [5] highlights that the relation is only relevant if it affects the specific properties under consideration and, therefore, cannot be viewed independently from the concept of real being. It is important to note that once the relation is qualified, it is no longer a relation, even though an action can predicate of it. The trap of certainty operates in all instances.

The same is true of Bains [4], who, given his Anglo-Saxon origin, does not have access to

the concept of entorno [20] and uses von Uexküll's concept of Umwelt in a dissociated way. The Umwelt is not precisely the environment in which the Jacobean oyster develops, but rather, based on perception, it is the internalization of that world in which it develops, that is to say, it is a "subjective universe" [32]. This "subjective universe" means that for Bains, relationships are above all "external to their terms". This gives rise to a semiotics of reality because the relations expressed in language are the relations of reality. This would imply that facts and language are the same, so his pure representational language is doomed to failure because, as we said earlier, the relation is not the relation, and the schema of action without an observer is meaningless. This affirmation is corroborated by using, for his relational ontology, Maturana's autopoiesis, which he always based on the field of interactions (the need for a physical-chemical justification). So much so that Maturana and Dávila, using the definitions of molecular autopoiesis, define the niche as the operational-interactional field: "a living being only exists in its functioning as a totality and only functions as a totality and conserves its life while in its interactions with the environment that contains it the operational-relational field that makes it possible arises and is realized with it instant by instant". We call niche the operational-relational field that makes possible the existence of a living being [7]. If we follow the narrative to understand the autopoietic niche, we find that the conservation of the organism occurs to the extent that the operational-relational field that makes it possible arises from interactions with the environment that contains it and is realized with it. It is precisely in this definition that an inexplicable leap occurs. As we have previously pointed out [11], interaction and relation are distinct domains, and however many configurations of interaction one can imagine, none of them is a relation. That is, a schema of actions (causes, effects, and impacts) may predicate interactions and the concept of medium (mesos = that which is in the middle) in a processual or operational-relational domain, but it is far from being a relational conceptualization. Therefore, the appellation "ecological" is an embellishment rather than an explanation of a concept since, by definition, "Oikos" is a relational concept and the interactional domain of autopoiesis is not, no matter how many adjectives are used. Therefore, the unity ecology-organism-niche, proposed by Davila and Maturana [7], would translate into

the relational unity of the relational organism-operator that emerges and is preserved from the history of interactions with the environment, integrating itself into the environment, which is a confusion of categories that leads to meaninglessness.

We live our language in an objectual, conjunctive and identitarian way, and in the continuous process of substantiation, we have transformed verbs into nouns. The relation, the relational, must be understood as a functor and not as an object. Indeed, it is taught that verbs predict actions and rarely that they are links between subject and predicate, that they are relational.

The relationship issues bring up, once again, the old question of objectivity (the objective) and subjectivity (the subjective), because we do not speak in terms of relationships; we speak in terms of objects, not even of subjects, because that sounds awful, as subjectivity.

Objectivity is well known and appreciated in all areas of our daily life, but at the same time, we ask others and ourselves to be authentic subjects. To be and to know oneself to be a subject implies the knowledge of a world for oneself, since a subject is nothing if a world is not produced for him, and a certain complexion in oneself (withdrawing into oneself), in the sense of ipseity identity.

How can we ask for objectivity when there are so many subjects that generate the multiplicity with which we coexist daily? This multiplicity unfolds as assemblages and identities based on differences and otherness, emergence, and poetic novelty. All this while remaining, finally, in the co-authorship of human communication. The latter implies that what we argue about, which we call world or reality can never be “objectively” separated from our own knowledge in and for-itself. But this “for-itself” has certain qualities that are neither precisely those of solipsistic thinking nor those of objectivist ingenuos.

Humans have been formed as part of a culture, a society, or a human community, and in this process, we have been molded by the historical course that constituted us in that community, so that we have become sensitive to the pattern that is connected within the communicational system in which we find ourselves. We are sensitive to the context, organizing, valuing and deciding what is expected and demanded in that community. Here we no longer speak of parts subordinate to the whole (holism) but of processes, a network of

relationships in which the parts and the whole are in loops or cycles and loops of loops or loops of loops and cycles of loops.

In this network, the parts become the condition of the whole, whose totalization serves itself and the parts that demand it to totalize it because the whole demands it from this totalization to offer itself to the parts. Thus, we function in communication (as a total process), where cultural agencies take place, and the statements give account of what is expected and irreplaceable in the community identity.

We enter the perspective of complex units with history. This implication has been systematically neglected by the thought inherited from classical science and philosophy. Therefore, we have always tried to elucidate the oscillation, the constant vacillation between “objective being and subjective being,” and it has been so because this inheritance marked and worked drastically separating the subject that knows from the object of his knowledge. Several times this hesitation has ended up totally absorbing the position of the other, something like what happens with idealism and materialism. With this radical separation, instituted in techno-scientific thought and in all the means of scientific propaganda, the historical and social process has been ignored as the sphere of all thought, subjectivity has been understood as “psychic elements of understanding” (in a pejorative sense) and the world, objects, have been thought independently of their construction by communities, societies or western human cultures, except for the investigations of some ethnographers that served to enrich the objective knowledge of other cultures.

To leave aside the relation and the emergent character of experience in every subject is to delude oneself that scientific (and non-scientific) arguments are “a-contextual” in their meaning and that the “a-processual and a-historical” is what can characterize the subject that is “objective.” Thus, we can clearly distinguish a relational style of thinking from a non-relational one, i.e. distinguish it from objectual thinking [20]. On the other hand, anything perceived by an observer, whether material or not, ends up representing something else in terms of the underlying “rules” that are patented in the decision and in the inevitable evaluation of human acts, that is, in terms of the rules or “systems of signification” [2]. This inevitably brings us back to considerations of culture, community, and context.

When we speak of relations, we do not start a priori from the consideration of objects with inherent properties; as observers, we establish differences and these differences are established by the subject in his entorno, in relation to his object of knowledge. In stating these established differences, we call them distinctions, traces or cuts made by the observer. In this process, the information generated is the “first news” of the differences established by the observer. Here objectivity disappears as a condition, or, in such a case, it is a non-neutral activity of the subject, who should pay attention to the explicitness of the “rules” or conventions he took to establish those distinctions.

From an epistemological point of view, the observer must first speak of himself and then of his way of making and experiencing knowledge. Part of the information thus generated can then enter the domain of human communication with its enunciation, which for the interlocutor takes the form of a message. Bateson [3] wrote that information was the product of a difference that made a difference later. In this process, the referent, the entorno and the observer are united in a single function. This evokes the triune entity of Pierce’s semiotics. However, during triference, the centralizer is unable to locate the difference it creates. Therefore, the sign becomes a triferentiated relational space, which distinguishes it from Pierce’s sign concept.

Relational theory is a way of explaining, from a set of ideas, what we do not see, but we know is there. Thus, the sense of the relational involves the process of triferentiation that allows us to generate distinctions, form and meaning. Therefore, we can give names to the relation, but even so, the name, or the name of names, is not the name, and the name of the relation is not the relation. Even if we say that the relation between something and another something is of such a kind, we denote it by saying that the first something is the name of the second something. Therefore, in a space of signification, the distinction that arises, as a product of the triference, makes us think of three relations that generate it, among which there is always the observer or a centralizing unit of information.

From the framework of relational theory, relational cybernetics is the science that studies relational viability as ecopoiesis in living systems. Every living system is complex because, as a unit, a system is a complex unit with organization. To the extent that an organization is the emergence

of a network of relationships, any way of maintaining its viability has to do with relationships.

Thus, cybernetics allows us to understand their forms of production and reproduction. It is therefore a matter of laying the foundations of relational cybernetics and ecopoietic strategies in complex systems. Based on this understanding, we have called the relational approach to know the epistemological position that privileges the relational observer–entorno (culturator) unit as a process of construction of territoriality, understood as the effective–affective equivalence in the exchange of meanings and their configurations (maps or landscapes of meanings), grounded on the activity generated in the entornos of the communicating observers. On this basis, effectiveness emerges in the affective domain [10].

From this point of view, knowing is understood as an emerging process of relational configurations, which is based on the generation of differences by an observer who configures (making entorno) and has meaning for him [11, 18]. It is this meaning that makes it possible to establish patterns of territoriality, or, in other words, to generate identity through agency and belonging.

In this process, territoriality becomes a collective idea, co-constructed among the observers that constitute the network. Consequently, descriptions and interpretations follow one another through internal mechanisms of communication (communicational closure), which we will define as generators of territoriality configurations. Therefore, territoriality is not a physical object, but the emergence of the selection of alternatives of descriptive elements, a constitutive property of the observation relationship [3, 33].

From this perspective, the descriptive–interpretative process does not apply to a territory but is a process of co-circumstantiality in the distinction of units since it implies both the definition of the observer and the definition of the observed unit in its entorno. It follows that the observer is constituted in the act of distinction as a unit, being the centralizer of the relationship with the observed and therefore participant of this [22]. From the relational school, we define the cognitive process as the generation of configurations of distinctions in relation to the meaning of their exchange, a product of the territoriality of the observer, this is evidenced from its discriminative–affective operation (distinction) in relation to the unit of observation, which by some criterion cuts

a sequence and exposes it acting in function of some meaning (to be explained). In this context, the possibility of describing arises from our history of descriptions, from our culture and from recognizing ourselves as part of the observation system involved in the communicational plot.

Through this perspective, the configuration of territoriality is co-constructed from our distinctions as a relational culture–nature process, where the observer can no longer be considered autonomous, that is, responding to internal mechanisms of self-organization, specifically, eco-semio-coautonomic, i.e. reproducing itself in relation to the semiotic process [33].

In this context, observation as a form of distinction is not only constructed based on certain criteria that need to be made explicit but also responds to a strategy and necessarily to a cognitive style [24]. In all this, communication between observers is of vital importance, for whom the messages have a meaning that is determined by the history of previous relationships and communications. Classifications, hierarchies and, finally, organization emerge as part of the process of preserving the culture–nature relationship and, therefore, do not apply to something; they emerge in the relationship.

The relation is the basis on which we say that, as observers, we extract differences and these differences extracted from the relation are argued as distinctions. Strictly speaking, it is a triference because the process involves both the one who generates it and at least two additional distinctions that define the objects of knowledge in the cognitive relation, even if one of these “objects” is the observer himself.

From the cognitive perspective, the primary consists in distinctions, in recognizing what surrounds as distinct. In this sense, distinction is predicated on the capacity to cut out, circumscribe and separate a unit from the rest. The extraction of a unit, the figure/ background distinction, has to do with individualization and not necessarily with their being different in fact, neither generically nor specifically.

The successive triferences form the culturally determined objects to be distinguished as distinct from the observer, thus entering the process of successive differentiations that form the spiral of the distinct-similar.

In synthesis, the process of knowledge can be explained as the transit from the production of

triferences to their more complex levels, which are sequences that allow us to narrate and configure a world in which it is irrelevant whether it is pre-given or given. Thus, from this perspective, if what we want to preserve, is the distinction of permanence, then culture will preserve those configurations that satisfy the idea of permanence within the process of communication.

In short, the permanent or constant could not be a property imputed to the object but to the configurations of distinctions or predicates about it. The question then comes up: what is it that implies permanence and, at the same time, change in representation, if representation is a predicate of the object from the observer’s distinctions?

It is the relationality of the predicate that configures the distinctions necessary for an observer to generate representations from distinctions of invariance and change. Therefore, the production of living units would imply at least two ways of explanation: the generation of the self from auto-poiesis [23], and a second process of production of entorno or relationality, which in cultural networks implies relational semiotic systems. This second process is what we will call ecopoiesis, and we will define it as “The strategy of linking reproduction, as a process, between the relational system (relationalability) and the material system of energetic resources (sustainability). This relational, recursive and epigenetic (spiral) process gives rise to the morphogenetic reproduction of patterns of identity and agency in the context of signification”. In the case of living units (cells), ecopoiesis) to decrease the production of waste or unrequired variety [11]. In the following sections, we will develop both explanatory routes to elucidate the coherence of the relational ambit and thus ensure that no objectual distinctions have crept in that would set back the explanations of the living.

A subtly erroneous thought can lead to a fruitful investigation that reveals discoveries of great value. Immersed in the consideration of the relationship as a unit, but not as a vital or survival unit, certain problems arise as to the meaning of the word or words designating the members of the relationship. The distinction made to describe a vital unit has basically used three words interchangeably to describe what, in principle, we can call “entorno of a viable unit.” They are “entorno, environment, and milieu.” In recent years, it has become clear that these usages and symbols need to be reconsidered. Here, we will briefly study

their etymology, the possibility of their use as descriptors and their epistemological scope in relation to the living.

The middle

It is a word of Latin root whose meaning is “to begin at the midpoint” or “to divide into two parts.” In our language, middle means “in the middle,” “that which is the way,” corresponding to the Latin adjective *medius* and, in turn, to the Greek *mesos*, which adds to the previous one the meaning of “ambiguous.”

Following the etymology, the word “medium,” referring to what surrounds an organization, is very unfortunate, since its meaning brings into play a third element, alluding to what is “in the middle.” If we take as a starting point the viable unit and what surrounds it, nothing can come between the terms. For this reason, Davila and Maturana [7] point out that the medium is an inadequate way of naming the external entity. The medium can be qualified according to the type of physical place where an activity takes place. Thus, for example, one can speak of an “aquatic medium,” an “aerial medium” or even a kind of “internal medium.” It is important to note here that if external conditions, whatever they may be, influence the activities of an organism, the medium is decisive or instructive, considered not as a unit, but as a process of the medium that shapes the activities, actions, and behavior of the organism. Language is constitutive to our biology, what we mean is that the concept of medium breaks the organism–entorno relationship. You can refer to the medium without the organism, which generalizes a context without the participation of the actor. So, it is necessary to make the distinction.

The environment

The environment is that which surrounds, but does not remain with the organism. The term “environment” refers to various factors that define a place, e.g., employment, supply, demand, etc. or types of services. If we consider the environment as a member of what should be a unit (viable system–environment), the environment is not larger than the organism. It is one thing to consider the system and the environment, and quite another to speak of the system in its environment; here what we are trying to express is the totality, which has little to do with the separate parts: the system is immersed in its environment and at the same

time interacts with it, the space that a system inhabits is its space. This being so, and everyone understands this, how is it possible that the environmental can be maintained as “autonomous,” as a domain of knowledge?

Entorno

A system, or viable unit in a relational sense, cannot be separated from its circumstances; what surrounds it must remain with it. What is called “external” is not an entity apart from the unit, and that is why the definitions of “environment” and “milieu” being used do not correspond to these criteria.

The description of the unit to which we refer requires an introduction and a participation in the sense of a notion of behavior, which, by the way, lacks the ideas of medium and environment. These words, either by their usage or as derivatives, are notions referring to external objects with inherent properties independent of viable systems.

The word *entorno* comes from the Greek *en*, between and *tornos*, circular movement, which gives the idea of “around.” The meaning is that of “permanence” in that situation [28] “that which surrounds” permeates if the link is established, so that “it is *entorno*” as long as it “is” for “something or for someone.” Thus, this term has from its origin a more complete sense insofar as it is binding. As Maturana and Varela [22] point out, “*entorno*” is “everything that surrounds an organism and is specified as external to it for its own activities.” This definition is very appropriate since it recovers the sense of von Uexküll [32], who, noting the tension in the use and meaning of the German *umwelt*, wrote: it is a totally vain desire to want to oppose to the use of language, the expression “surrounding world” (*umwelt*) does not correspond closely to the concept to which it is attributed. Therefore, I would like to replace it with the word “perceptible world” (*merkwelt*), which means that for each living unit there is a special world, constituted by the distinctive notes it takes from the outside world.

The world is not given in advance; there is no adaptation directed or pressured towards it. The mutual play of tension and flexibility allows the system–entorno unit to evolve. For more details on the epistemological differences between environment, *entorno*, middle and environment, see Malpartida [19].

However, the use of the concept of *entorno* is not gratuitous, it has no English translation, and its meaning implies that which surrounds and remains, that which shapes [32]. Dependency relations in and with the *entorno* are necessarily eco-spontaneous. That is, it arises spontaneously whenever it is not possible to think of a living unit without *entorno* and/or *entorno* for anyone. Behind the idea that an organism that destroys its *entorno* destroys itself, there is the condition of the inseparable link. However, complex the unity may be, it entails a hidden paradox in the fact that the organism is in its *entorno* and at the same time interacts with it.

The dimension of the *Oikos* implies, on one hand, the relation of the organism to its *entorno* and, on the other, the relation of the organism to its *entorno* as part of itself. It is necessary to change the notion of the reference system; it is no longer a question of the single individual organism, but of the organism–*entorno* in a spontaneous organization, as we have already indicated.

For this reason, the ecopoietic organization is the unit of production of the organism–*entorno* organization and is considered, from this point of view, the reference system. Ecopoiesis is the process by which the unit of reference becomes habitable, territorialized, or fit for human habitation. It has been and is common in the fields of ecology and economics to study these relations of dependence and exchange, affecting them as transfers of energy. This constitutes a way of separating parts and wholes, generating hierarchies and discretizing. But in the organism-in-its-*entorno* unit not only matter and energy circulate but also messages from which information is generated.

We highlight the spiral shape for ecopoiesis because of the possibilities of presenting the change-preservation relationship. The spiral is a geometric figure that helps us to understand the viability of organization, of the living as cybernetic or morphogenetic positive feedback loops.

We have chosen as a paraphrase a spiral helix shape with x, y and z axes since none of the spirals closes on itself, it is not autocentric, on the contrary, at each turn, it opens and generates a new spiral that is related to the previous one. This continuous change called Morphogenesis is the basic principle to account for processes that escape control, that is, processes that continuously generate new situations. The explanation of the living is a process in which, as in all evolutionary

processes, information is always generated from a pre-existing situation. The spiral is a curve that revolves indefinitely around a point and, at each turn, moves further away from the center. Each turn of the spiral is called a “spiral,” and this serves to establish the form between abduction and schismogenesis or differentiation (the dance of the spiral) [14].

If abduction contains differentiation while maintaining form, it means that its ecopoietic strategy preserves relations from a minimum variety not required to use only the necessary resources. Spirals generate different dimensions, each time larger and larger, as they move away from their center. Consequently, we must traverse a continuum in which novelty is created by resorting to what has survived in the past.

This process of development of configurability implies a play of tensions that gives rise to a network of relationships that must be ecologically produced to the extent that their relationality and sustainability are balanced. The spiral form allows the experience of change to occur repeatedly as countless landscapes are constructed, all resulting from networked processes. Each abductive spiral involves an epigenetic development in relation to the preceding spiral. The entire spiral represents the growth of progressive differentiation (cismogenesis).

Consequently, the whole process called “ecopoiesis” refers to the creation of an organizational network with a heterarchical web that dances morphogenetically in a spiral.

Conclusion

This article concludes with a counter-intuitive proposal to the dominant lines of thought, distinguishing: complexity as vital interweaving, Aristotelian *oikos* as communitarian distinction, organism–*entorno* from relational theory (beyond the interactional), in a cybernetic referential framework that allows tending to sustain and sustain life from ecopoiesis. Thus, the novelty arises as a vital phenomenon supported by the growing relations of the organism–*entorno* unit, recreating the circumstances for its own survival.

It is also determined that the research has practical implications for society due to the unpredictability of viability, such as culture, community, and human context. The dismantling of

conceptual hierarchies was part of an epistemological turn that took place in the last decades of the twentieth century. The understanding of the plot that accompanies the current individual in his aestheticized relationships has provoked what we have called a “heterarchical turn” in our way of thinking, something that the narrative of evolutionary processes does not always consider such as studying questions such as the understanding of the oikos and its ecopoiesis, the positioning and meaning of aesthetic practices, as well as the methods of creation. Werner Heisenberg believed that, If the harmony of society, after the multiplicity of phenomena, depends on the common integration in unity, then the language of poets could be more important than that of scientists. Werner Heisenberg’s imaginary horizons and paradigms derived from so-called cognitive landscapes are crucial because these issues impact how individuals are formed within organizations in general and in knowledge-creating organizations, how they participate in politics and how they live their daily lives.

The traditional links that dissociate culture–nature must be replaced, and the relationship must be included as a coordinate from which we must explain how we build the organization from the organism–entorno unit. Consequently, the viability of ecopoiesis is ensured by shifting the points of enunciation to the relational conception that belongs to us as a process of creation.

To organize the thinking of the 21st century, from uncertainty and from an observer present in its narrative, the value of the contextual as opposed to false universalisms and their critical interpretation becomes essential. Understanding ecopoiesis from its aesthetic coordinates, rejecting reductionist approaches and objective representation, is crucial in the current context. The latter has profound implications for the functioning of living systems because they are epigenetic in their shaping processes, suggesting that relational entanglement underpins the history of viability. Such insights are necessary because ecopoiesis, as a narrative about the origin of the organizational structure of the

living, demands that priority be given to the patterns hidden behind quantitative dimensions.

According to a relational theory of cognition, the sources of knowledge go beyond genetic and environmental factors. In the realm of explanation, we move from “how much,” “why” and “how” to “why not.” Thus, the processes involved in understanding the living are forced to move from the logic of parts to the logic of patterns, which involves developing an explanation that considers the unique characteristics of development, encompassing the diverse origins of the organization of the living.

Knowing involves configuring or accepting that the mobilization of relations involves the semi-otic organization of triferences into distinctions, as mentioned in previous paragraphs. Although alluded to in an account anchored in the concept of the discrete (digital), the configurative world created by this process has analogical characteristics. According to this point of view, explaining how life is organized entails the difficult task of replacing rigid hierarchies of thought with flexible, stochastic forms and, at times, living uncertainty. According to this view, living in a belief system in which only the processes of determination, disjunction, unidimensionality and quantification are conceptually valid for understanding the complexity of any form of organization is opposed to relationally based knowledge strategies. In this context, “relational art” refers to a form of art, in which there are no differentiated categories of restrictions or limiting boundaries, which orients to an affective-effective coherence of living, a kind of ethical and aesthetic encounter for a fundamental concept in the culture-nature relationship that is “living well.” Finally, what prevents us from rescuing the idea of the living from its objectual and reductionist conception, rooted in the security of immutability? It is the strategic practice of neuroscience and relational cybernetics that comes to the aid of the living, moving us from the objectual to the relational, from the reductionist to the complex and from certainty to the unpredictability of life itself.

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Section

Personal reflections



SQUAWK. CONTEMPLATIONS ON ANIMAL PRESENCE IN ART THERAPY



BEVERLEY A'Court

BSc.Soc.Sci. (Joint hon. Phil. & Psych.), Dip. A.T., registered art therapist (UK), a long-term member of the Findhorn Foundation Community, currently in private practice

Abstract. This essay by Beverley A'Court, describing therapeutic interactions with animals, is part of the continuing response to our invitation to share the experience of human — animal bonds. Interactions with local wildlife during author's outdoor art therapy sessions over the past 25 years provided an opportunity to learn more about both the animals themselves and the role of field phenomena in art therapy. This essay is an informal exploration of the author's observations of the impacts of animal encounters on clients. She identifies some theoretical and practical questions that arise when we include the spontaneous, active participation of animals and nature in the therapeutic process. She concludes that ecological therapies, with their holistic paradigm may develop ecological sensitivity and awareness in clients beyond their personal recovery from symptoms of trauma, for wider collective benefit.

Keywords: animals, art therapy, eco therapy, affinitive listening

Scotland, pheasant

I had glimpsed a distant slash of light piercing dense woodland and was trying to recreate this in a painting outdoors, laying stripes of vivid colour to capture the dramatic swords of light tinting the Scots pine trees with coppers, crimson, deep indigo shadows among the birches and emerald-toned oaks. In my absorption I didn't notice the cock pheasant's silent approach, with his plumage of deep crimson-red, brownish blue-black and amber, until he stepped directly in front of me and paced the entire perimeter of my painting, lifting and placing each twiggy foot with slow precision, his gaze fixed on the picture as if assessing the colour match with his feathers. Which they were. He leaned in and tested (tasted?) the colours with his beak tip then stepped back, as if respecting this space. When he finally looked up and walked away, I felt blessed, graced with a visit from a special guest.

Such visitations occurred increasingly when I took art therapy outdoors. The colour match

between my woodland image and his plumage was obvious and something was ignited in me that has never dimmed.

*Let me keep company always with those who say
'Look!' and laugh in astonishment
and bow their heads.*

Mary Oliver [12]

I want to begin by expressing my appreciation for Caroline Case's book, 'Imagining Animals: art, psychotherapy and primitive states of mind' [6] which first helped me to articulate and explore my feelings about animals in art therapy, especially in work with children. It is still an inspiring and provocative read that blends academic with mythic and literary writing styles, and powerfully draws us in to consider the many ways in which animals turn up in our work and the power they bring, sensual, metaphorical, mythic, and invite or jolt us into seeing through different eyes, sensing through other skins. Caroline was my art therapy tutor and my supervisor for some years afterwards, and visits to her home took a whole day, the long journey rewarded by the chance



Photo: Laura Makabrescu. 'The Anatomy of Melancholy' (inspired by the paintings of V. Hammershøj)

to see her extraordinary paintings, which often included strange animals with unnervingly human presence. She also allowed more silence in her therapy groups than any other tutor which I found fascinating in how so much unfolded naturally in the spaciousness, and while much was left unspoken somehow I always left her groups feeling much had been understood. There was more than a little resemblance to how we relate to animals in this style, which I liked. She later wrote eloquently about the importance of silence in art therapy and its gift to child clients desperate to find themselves.

Art-making, and the presence of humans, absorbed in creative activity, their predatory reflexes temporarily relaxed, seems to interest and attract many birds and animals that live in close proximity with us, and others too, to approach. As top predators, we may be associated with free food, the crumbs from our feast, but often we are associated with threat of attack, shooing away any creature not invited to the table regardless of what gifts they bring.

This paper is about some of my encounters and observations during art therapy, and the contemplations emerging from these.

Scotland: European herring gull (*Larus Argentatus*)

Sit outdoors and begin a grey-green sea painting or observe a client absorbed in making a tiny house for a broken heart or a twiggy structure about chaos and loss ... and a curious, cautious gull will approach and may decide to sit with you.

This is not the popular or media image of these birds as raucous, aggressive 'vermin' likely to dive bomb and steal food from your mouth, taking out an eye or or injuring a child's hand in an attempt to snatch its ice cream.

If you resist the urge to reach out towards its temptingly deep, snowy white plumage or flap your arms to nervously shoo it way, and instead look up slowly, remaining still, at rest within yourself and if you speak politely, calmly, almost formally, as if greeting a respected visiting elder, what happens can be surprising. Move mindfully and the gull may pace a circle around you, its single black-dot-in-a-yellow-jewel eye pinning you to the moment with his/her stare. What you are doing may be closely watched. You'll sense a needle-sharp presence and sky-wide intelligence scanning for a twitch or squirm or fallen sandwich.

The resident colony of herring gulls in my home area, as I have documented elsewhere [1] have been an inspiring, informative and instructive contribution to the development of my understanding and practice of ecological art therapy. Their intelligence, according to British naturalist Sir David Attenborough, is an under-researched phenomenon only just beginning to be appreciated. Their vocal range and loquaciousness seems to equal our own and their perfectly timed interventions in my outdoor therapy sessions have resulted in many significant somatic shifts and transformative psychological insights in my clients.

The discipline of ethology, which involves observing animals engaged in their lives in natural habitats formed only a minor part of my undergraduate degree but became a life-long interest. I was fortunate to meet Niko Tinbergen, a respected ethology pioneer, who described how he approached wild animals and his toddler grandson similarly, toning his body language to communicate. Ethology has informed my art therapy with young children as well as my own amateur gull studies. I consider it a rewarding practice for

arts therapists, enlivening our own mirror neurones, *vagus* nerve system and more as we attune to the movements and communications of our animal kin.

Comparing what I learned about gulls, and human reactions to them, through close, daily contact to what is written about them in science journals convinces me that coming into our living presence and entering into relationships with other sentient beings is a vast and accurate source of information. When an animal's electromagnetic 'auric' field mingles with our own, directly affecting our physiology, it may potentially be less likely to lead to anthropomorphic distortions than when that animal is observed through perspex in a laboratory where the entire environment, every surface, the very air and every task has been designed and controlled by a human mind reflecting the structure and content of human cognition.

What is happening when an animal enters the therapy field and enacts apparently intentional pertinent behaviour that triggers insight and associated somatic and cognitive shifts in the client?

The animate field of beings and affinitive listening

I would like to borrow the term 'Affinitive Listening' from the philosophical geographer Peter Adey [3] which he coined for his own research purposes and which was inspired by the affinities that exist between chemical compounds. In an ecological therapy context, this term, better than any other I have found, suggests the sensitive, mutable, subliminal sensing we can experience in nature, and between ourselves and wild animals and in fact with any material object, whose 'body' is 'not so different from our own, with membranes and passages permeated by air' [8] and I would add, its own electromagnetic field.

'Affinitive listening' suggests the process by which we detect from sensory minutiae the finely-tuned and shifting ambience of an environment, as its co-creators live and breathe it into being and its past sends echoes through our bodies, and how the elements composing that reality in any moment shimmer around a being, the client in therapy, their art work or the therapeutic dyad. We listen with our entire bodily system, even to the presumed inert parts of our environment, with

our electromagnetic field that, like the spider's web, resembles an external nervous system, detecting and conveying subtle information to the core [9]. When we relax deeply into states of communion with the whole, shifting from the small egoic self to the cosmic or ecological Self, we extend our senses to far beyond the body envelope and sense contact at significant distance. This has long been recognised in the practices of many Indigenous hunters and Scottish water diviners.

Honing our 'affinitive listening' [2, 3] seems, anecdotally, to be one of the subtle side effects of ecological art therapy outdoors: Clients report feeling increasingly attuned to their own body signals, alert to subtle shifts in light, moisture, shadows and the sense of presence of another animal. This confirms our place in the web of life, our own twitching, wild nervous system, our predator and prey potentials.

In this state, insights cascade;

'I feel as if I am the whole space here, as if I can sense what is happening even behind those bushes and trees.'

A client was working outdoors on family dynamics, using natural objects found in the area and spontaneous movement when, just as she was about to speak about her mother, two elderly women slowly and quietly approached a bench on the periphery of our therapy area. The client said;

I knew someone was coming, and who they might be before I looked round. I knew it would be someone who somehow reminded me of my mother. I don't know how I knew.

The rest of the therapy session unfolded powerfully and gracefully with the two women getting up and leaving exactly at the moment the client felt she had completed her process. She was surprised and impressed at the precision of this synchronous encounter, how closely one of the women resembled her mother including her posture.

Mouse

Walking with a youth group into a tangled forest a dead mouse appeared on our path. One girl immediately picked it up and carried it gently cradled in her hands, saying it was part of our project because it was there right in our path and perhaps it needed our care or for us to bury it. This remark

suggested her connection to an inner sense of the holism underlying ecological art therapy; the interconnected, interdependence of all phenomena and the synchronicities this generates.

During the exploration of our chosen forest area the mouse was 'stored' carefully in makeshift swaddling and a cloth-and-leaf hammock stung between tree twigs. During preparations for the final ritual of our session, there was intense conversation among the teenagers concerning how the mouse should be included and they agreed it should be integrated into the centrepiece. Some of the group had by then attributed personal meanings to its presence and its death, which contributed to their reflections on care (this was a therapeutic community for orphaned children) death, self-harm and depression which several of them suffered and ideas about rebirth. Mice are often not timid but brave, noticeably in how they show up during outdoor sessions. Mice have wandered into clients' newly-made mini-installations and tiny houses, and taken up residence during the session, confirming for the client previously unrecognised aspects of their situation, their deep need for a safe base and their versatility, adaptability and ability to create this, for example.

When small birds and animals enter, explore and settle temporarily inside a client's creation, this typically brings the session to silence. Clients pause to observe what the creature does in relation to their art work. In this silent time, painful emotions and themes of the therapy can become integrated with this gift of the other. This is an outdoor equivalent of the silent, spacious 'looking together' at the art work of conventional indoor art therapy, where therapist and client take time to witness, honour and fully receive what has been made, and allow its layers of significance to emerge.

Spider

A spider who landed between two branches a client had used to create a symbolic shelter began spinning a web, weaving distant parts together, mirroring for this client how she was exhausting herself in the effort to keep peace between conflicting members of her extended family. The trembling sensitivity of the web as the wind got up, resembled the anxious, easily

triggered reactivity in the family. As we watched, the spider's activities symbolised other aspects of the client's life and demonstrated, as it spun, qualities the client could apply to her own self-regulation.

Deep archetypal resonances associated with these creatures are also often awoken in such moments, and here the client was able to face without shame or judgement some of her 'grandmother spider' tendencies to control and be the one holding all parts of family life together.

When I have stumbled on animals in the wild, I have also wondered, if their mirroring us provides new insight, what, if anything does an encounter with us do for them?

There are many dramatic and moving myths and traditional tales of such meetings with wildlife, and the profound change created in the human person. Some stories of multiple or prolonged encounters over time suggest that more than simplistic transformations of our basic instincts to run, hide, protect, attack etc. may occur for animals too, especially where wild animals initiate the contact and what follows.

Pride

We might regard pride as a human emotion not to be projected onto animals but passing a field of cows with their calves, seeing gulls with their chicks, or semi-feral farm cats with their kittens suggests other possibilities. Adult animals will spontaneously approach with their young as if to present them with pride and regularly elicit from humans, including unsentimental farmers, expressions of admiration and praise for the parents and delight in the young. Where animals are not afraid, or a bond has been established, there appears to be a reciprocal appreciative response. This was very visible in the case of our resident gulls after one year of residence. The usually more reticent females would escort their young precariously close to the roof-edge above where our family sat in the garden. This directly contradicted the conventional view that gulls will attack anyone who gets too close and they generally dislike and become a threat in proximity to humans. The female gull would stand while we praised the beauty of her growing chicks and her wonderful parenting. Only after some time would she escort them back up the roof. No food-seeking

signalling accompanied these meetings. The gulls taught me that they too enjoy silent companionship in the garden, without harassment of any kind. Slowly, over two years, they began to join in my therapy sessions.

Social media are brimming with videos of similar animal encounters and relationships and the powerful emotional impact on the humans. Similarly, traditional story books and contemporary films abound with child-wild animal friendships, special bonds that often help both to survive loss or danger and grow to maturity. There is usually a sorrowful parting at some point, when being kin is not enough, and each must find their own natural life with others of their kind.

Crane dances

The usually barefoot dancer Dana Reitz makes compelling performances, sculpted with light and silence. After one of her spellbinding, silent dances where she entered the space like a huge-winged crane stepping on delicate feet she recommended artists and others involved in body-based practices, to dedicate time to simply watching animals and shared her own love of visiting zoos to watch animals closely and experience, via the felt sense, how energy runs through the inner layers and channels of the body and how forms arise on the 'outside'.

At the time I was employed to use approaches from art therapy to introduce women in rural villages to the liberating potential of expressive art-making; to restore lost confidence, support transferable creative and intuitive skills and foster psychological and group empowerment. Inviting them, for example, to feel into the experience of a dog wagging its tail and to wag their own 'tails' was an early playful way to shift body-tensions and release muscular constriction that was inhibiting art making and other forms of expression. The exercises I created in experimentation and collaboration with these groups* became foundational for the deeply meditative gestural drawing practices that followed. The vast array of somatic and sensory-motor, breathing modalities developed in recent decades testify to our professions waking up to the importance of including our bodies and our animal characteristics in how we think about, and practice, the healing arts.

Holy moments

Scottish performance poet Sarah Wilder observes in her poem 'The holy happening' a waitress giving especially tender attention to two lovers in a cafe as having recognised that 'something holy was happening here,' and ends with,

*I wish more waitresses would bid farewell like that
for when is something holy not happening?*

Wilder, S. [15]

Therapy exists in this dynamic between the Holy and the Earthy, often working to reconcile the splits we make and the conflicts we generate. Our encounters with animals often seem to offer respite from the struggle, we become playful, feel accepted and loved unconditionally by loyal animal companions who welcome us tirelessly by, day after day, while their 'owners' thrive on the purposeful role and daily care regime animals require. Encounters with animals in the wild, including encounters during outdoor therapy, have a numinous quality. There is almost always a sense, in the synchronicity that is so often part of the experience, of something holy happening. A message comes in the language of nature to the client who is also animal, also nature. People say they feel blessed by such encounters, seen by nature, fully confirmed in their existence, in their place and right to be here, 'touched by an angel' as more than one client has said. The author David Abram is a master of contemporary nature writers who chart such moments with our animal kin.

Some questions for self-reflection and supervision:

What can we learn about ourselves and our lives with animals, that might inform human healing and art therapy?

- What is your earliest animal memory, your first meeting with an animal?
- How did you feel in this encounter? What did you sense in your own body and in the atmosphere around you?
- What did you notice about how the animal responded to your presence?
- What was the overall quality of this experience?
- What did you learn from it, did any attitude or belief form in that moment?

- Did something from this experience carry forward and contribute to your core values, beliefs about humans and other animals and your personality as an adult?
- Is there some attitude or belief from this time that informs your art therapy practice?
- How does it show up in your practice and in your own art work?
- How does this contribute to benefit for your clients?

The talking ape

Our predatory dominance of global species and ecosystems is often attributed primarily to one distinctive faculty, language, our ability to communicate our needs and intentions in word-symbols and to persuade and manipulate others to cooperate with our wishes. However, professionally trained animal communicators are frequently called to assist with disturbed and disturbing, potentially dangerous, animals in many captive and wild contexts. They listen to the animals' own communications and 'translate' them into human language, a faculty traditionally recorded as a gift of mystics, saints, shamans and sages.

In outdoor art therapy, as in fairy tales, clients often express the subjective sense of being able to understand animal 'speech', and are often surprised to receive a clear impression of what an animal is 'saying' to them that does not resemble their own internal self-talk but is relevant to the immediate context. Might they be re-discovering a latent or neglected faculty? I have never witnessed a negative, critical or otherwise harmful message being received in this way, unlike much of a client's internal dialogue. From the song, poems, visions and myths of the past and my own over 20 years' close contact with herring gulls I support this impression, that we are able to understand each other across species to a far greater extent than has so far been seriously considered in academic scientific circles.

Language is scattered with traditional idioms rooted in our agricultural history expressing the contentment of harmony between an animal's bodily state and the environment. Two English examples are, 'as happy as a cow in clover' and 'as happy as pig in shit'. In UK legislation animals in captivity should be free enough to conduct some

of their basic, natural, species-characteristic behaviours, although sadly many are not.

Human animals

Violent crimes often appear to be a result of a 'primitive' impulses exploding into attack or destruction. Describing someone as 'animal' or 'brutish' is to suggest that the sacred boundary of the category 'human' has been transgressed. As an insult, it declares someone less than human-person, uncivilised, inarticulate, violently unregulated and aggressive. It maintains the cognitive distinction between us and our animal kin. In contrast, many Indigenous peoples have belief systems that affirm their close connection to the animals of their home environments, whose spirit and right to life they respect and learn from and with whom they empathise and cooperate for mutual benefit and ecological harmony.

Colloquially we say someone behaved like an animal, even when referring to something animals rarely do, reinforcing a belief that our animal nature is a too potentially explosive, destructive force that must be regulated (tamed) at all times as it carries the dangerous potential for 'unbridled' (the horse unbroken) chaotic, inhuman threat. 'Animal' is a category into which we can place many complex, psychologically uncomfortable phenomena, an 'other' that is also inescapably part of our self.

Beyond animals we have other categories of marginalised and animate beings; monsters, angels, demons and gods, peripheral to human life all of whom have historically been regarded as able to inhabit our world on occasion, capable of taking up residence and taking possession of our body-mind and soul.

What is our relationship to animals in therapy?

The following ancient questions, explored for millennia across many disciplines, are far beyond the scope of this essay but are worth mentioning to awaken our exploratory introspection and imagination.

What kind of animal is a healthy human?

How best should we acknowledge this aspect of our being?

What does it mean to integrate and respect our animal self in psychotherapy?

What is our relationship to other animals?

Wolves and underdogs: identity, identification

Some clients bring to therapy their empathy and intensely passionate identification with animals and need this relationship to be witnessed and acknowledged, not pathologised as a symptom or evidence of deficiency by the therapist. Bernstein [4] gave credence and significance in psychotherapy theory to the importance of nature and animals as core sources of relational connection care and unconditional love for some clients formerly diagnosed with Borderline Personality Disorder. Finding kinship among other animals is an adaptive survival strategy when human relationships have been catastrophic. Fortunately, BPD is now redefined as a set of natural tendencies caused by unattended trauma.

Where there is deep unconscious trauma, life provides many opportunities for empathy and identification with the suffering of other beings and advocacy for their recognition, inclusion, status and rights. Christian ethical social norms underpinning British society historically reward care for the less fortunate and 'virtue signalling' is a well-recognised syndrome amongst those who need to be seen as allied with the socially approved moral stance. Beyond empathy, support and advocacy some move into over-identification-with their suffering animal kin, and adopt behaviours, clothing, language etc. that display their social identity. This can become a strong attachment, to a persona, a role and the symbols that publicly signal their affiliations and allegiances and stance. Identification with the animal victim may help to carry unbearable human pain, providing a sense of membership in a community of fellow sufferers, a parallel horizontal experience to counter the agonising, lonely despair of abandonment. Animals are rarely reported to communicate anything that contradicts the 'victim' role many animal advocates place them in although there are examples from animal communicators with major predators having found that the animal is not so much a victim as angry or frustrated by its human associates [5].

Responsible kinship

In Buddhist psychology a practice called Tonglen — 'giving and taking' — addresses our

empathy with, connection to, and power to alleviate the suffering of other beings.

Breathing in, we 'inhale' the suffering of others, drawing it out of them in the form of black smoke and sending it, not into one's own egoic self but into the limitless, luminous space of enlightened compassion and wisdom. Here all suffering is instantaneously dissolved, black smoke is transformed into the space and light of goodness, compassion.

Breathing out, we send to others this flow of light, compassion and wisdom from the heart of Buddha Dharma. An indirect benefit of this type of practice is how it can reduce the tendency and attachment to strong identification. Instead of clinging to a vicarious, victim identity, laden with our projections onto the other, we energetically activate our inherent power of compassion and the energy of our embodied imagination to alleviate suffering and direct its flow towards them.

An approach recently shared by nurse Katherine Thorn [14] involving animals has some of the spirit of this Tonglen practice. It relieves the sufferer of the delusion of isolation by connecting. She introduced a series of animal videos to clients who had experienced peer rejection. She and her child clients watched together how animals expelled from one group went about the process of joining another. She observed that 'watching videos also seems less 'weird' for children who already feel very different. It seems to have proven a good starting point' and 'seems to give a normalising framework and of course an opportunity to reflect on the trauma within third person (third animal) distancing.' [11, course feedback].

As Mary-Jane Rust and many other eco therapists since have written, and as Indigenous and many rural remote communities dependant on animals and nature recognise, the local trees, plants, mountains, waters and animals share with us a basic bio-spiritual affinity, we are 'kin' a knowledge which we suppress or eradicate at our peril and theirs. The loss of felt connection is transferred to many other areas of life, the body and relationships, and may be profound and often subtle, lurking beneath our civilised persona and self-image, a hidden anguish expressed as a nameless suffering.

The self-harm inherent in much of capitalist, materialist-consumerist ideology and lifestyle erupts gradually in therapy, like poison leaving the body.

- Have industrialised societies come to ‘other’ animals, to conceptually categorise them as non-persons, less sentient, less conscious, less important than ourselves, because we need to hunt, farm and kill them?
- Do we ‘other’, depersonalise, them in order to do this with impunity and mute, avoid and silence our inevitable dissonance and guilt?
- Or, do we strive to find ways to make good our relationship with animals as having some rights as unique, sentient individuals, ‘persons’ with social needs and affiliations?
- Do we live in a precarious state of psychological vulnerability, always on the edge of moral jeopardy, suppressing a deep moral injury by denying and suppressing awareness of our collective abuse of animals?
- Would we be healthier to do as so many Indigenous societies have always done; to surround the hunting, fishing, farming and slaughter of animals with ritual and

ceremony to honour the being that was, to acknowledge its own right to life, its presence and contribution to the whole, and the loss of that as a sacrifice and facilitate the animal’s soul’s passage to its next place? Should we be making sacred whatever we can, using our human abilities for ritual arts and other practices?

These are not merely academic ethical questions, they pervade embodied life and influence where we locate the sources of our psychological emotional problems and where we look for remedies. The cruel and ecologically destructive trade in animal parts for questionable medicines demonstrates our alienation from our own bodies and an integrated view of life and health. To believe that destroying vibrantly alive and wild animals, the totem teaching animals of our ancestry, to eliminate such beauty from the Earth and destroy the ecological systems they are part of in order to ‘heal’ people in another place is a very vivid kind of disconnected ignorance and misunderstanding. It is my hope that ecological therapies will prove to be a contribution to something better for all beings.

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Section

Poetic Anthology
of Eco-Human Experience:
Poems About Plants and Fungi



POEMS ABOUT PLANTS AND FUNGI

The new section of our journal, "Poetic Anthology of Eco-Human Experience", presents poetry, which reflects the human connections with the natural world. In this issue we offer a selection of poems dedicated to plants and fungi, written by poets of the 20th — early 21st centuries, allowing us to see the eco-human, ecopoietic dimensions of these relationships, and human ability to generate new meanings and forms of experience through interaction with these forms of life. We invite readers to contribute to this selection of poems. Please feel free to send us poems on plants and fungi that you find relevant.

Robert Frost (1874–1963), is one of the most celebrated figures in American poetry, the author of numerous poetry collections on universal themes infused with psychological complexity and layers of ambiguity and irony.

The Sound of the Trees

I wonder about the trees.
Why do we wish to bear
Forever the noise of these
More than another noise
So close to our dwelling place?
We suffer them by the day
Till we lose all measure of pace,
And fixity in our joys,
And acquire a listening air.
They are that that talks of going
But never gets away;
And that talks no less for knowing,
As it grows wiser and older,
That now it means to stay.
My feet tug at the floor
And my head sways to my shoulder
Sometimes when I watch trees sway,
From the window or the door.
I shall set forth for somewhere,
I shall make the reckless choice
Some day when they are in voice
And tossing so as to scare
The white clouds over them on.
I shall have less to say,
But I shall be gone.

Marina Tsvetaeva (1892–1941) was a Russian poet, whose work is considered among some of the greatest in twentieth century Russian literature. As a lyrical poet, her passion and daring linguistic experimentation mark her as a striking chronicler of her times and the depths of the human condition.

Insomnia. 7. In the pine-tree, tenderly tenderly...

In the pine-tree, tenderly tenderly,
finely finely: something hissed.
It is a child with black
eyes that I see in my sleep.

From the fair pine-trees hot
resin drips, and in this
splendid night there are
saw-teeth going over my heart.

*Denise Levertov (1923–1997), though Denise Levertov was born in England, she became known as one of the great American poets and became an important voice in the American avant-garde. Levertov went on to publish more than twenty volumes of poetry, including *The Freeing of the Dust* (1975), which won the Lenore Marshall Poetry Prize.*

In California During the Gulf War

Among the blight-killed eucalypts, among
trees and bushes rusted by Christmas frosts,
the yards and hillsides exhausted by five years of drought,

certain airy white blossoms punctually
reappeared, and dense clusters of pale pink—
a delicate abundance. They seemed

like guests arriving joyfully on the accustomed
festival day, unaware of the year's events, not perceiving
the sackcloth others were wearing.

To some of us, the dejected landscape consorted well
with our shame and bitterness. Skies ever-blue,
daily sunshine, disgusted us like smile-buttons.

Yet the blossoms, clinging to thin branches
more lightly than birds alert for flight,
lifted the sunken heart

even against its will.

But not
as symbols of hope: they were flimsy
as our resistance to the crimes committed

—again, again—in our name; and yes, they return,
year after year, and yes, they briefly shone with serene joy
over against the dark glare

of evil days. They are, and their presence
is quietness ineffable—and the bombings are, were,
no doubt will be; that quiet, that huge cacophony

simultaneous. No promise was being accorded, the blossoms
were not doves, there was no rainbow. And when it was claimed
the war had ended, it had not ended.

Vladimir Soloukhin (1924–1997) was a Russian poet and writer. The main theme of Soloukhin's work is the Russian countryside, its present and future. He was considered to be a leading figure of the "village prose" group of writers.

The Birch

In fir plantation all is dreary,
The tone is muted and subdued.
A silver birch's flash shines cheery
Alone among the firs that brood.

For people, death's less complicated.
I saw myself an hour ago,
In distant grove, when agitated,
Birch started cheerful autumn show.

And here her leaves she now is shedding,
From other birches tucked away.
In hazy covert, blaze is spreading,
A hundred paces' golden spray.

And dreary firs uncomprehending
Still closer in upon her crowd:
We both were verdant skywards trending
A while ago. Why's she so proud?

And so, the serious firs stand thinking
As if they're lowering gaze to ground.
For dying birch that now is shrinking
They vigil keep without a sound.

Robert Hass (1941 –), his books of poetry include *The Apple Trees at Olema: New and Selected Poems* (2010); *Time and Materials* (2007), which won the National Book Award and the Pulitzer Prize; *Sun Under Wood: New Poems* (1996), which won the National Book Critics Circle Award; *Human Wishes* (1989); *Praise* (1979), which won the William Carlos Williams Award; and *Field Guide* (1973), which was selected by Stanley Kunitz for the Yale Younger Poets Series. He received the 2014 Wallace Stevens Award for proven mastery in the art of poetry by the Academy of American Poets. He is a distinguished professor in poetry and poetics at the University of California, Berkeley.

The Apple Trees at Olema

They are walking in the woods along the coast
and in a grassy meadow, wasting, they come upon
two old neglected apple trees. Moss thickened
every bough and the wood of the limbs looked rotten
but the trees were wild with blossom and a green fire
of small new leaves flickered even on the deadest branches.
Blue-eyes, poppies, a scattering of lupine
flecked the meadow, and an intricate, leopard-spotted
leaf-green flower whose name they didn't know.
Trout lily, he said; she said, adder's-tongue.
She is shaken by the raw, white, backlit flaring
of the apple blossoms. He is exultant,
as if some things he felt were verified,
and looks to her to mirror his response.
If it is afternoon, a thin moon of my own dismay
fades like a scar in the sky to the east of them.
He could be knocking wildly at a closed door
in a dream. She thinks, meanwhile, that moss
resembles seaweed drying lightly on a dock.
Torn flesh, it was the repetitive torn flesh
of appetite in the cold white blossoms
that had startled her. Now they seem tender
and where she was repelled, she takes the measure
of the trees and lets them in. But he no longer
has the apple trees. This is as sad or happy
as the tide, going out or coming in, at sunset.
The light catching in the spray that spumes up
on the reef is the color of the lesser finch
they notice now flashing dull gold in the light
above the field. They admire the bird together,
it draws them closer, and they start to walk again.
A small boy wanders corridors of a hotel that way.
Behind one door, a maid. Behind another one, a man
in striped pajamas shaving. He holds the number
of his room close to the center of his mind
gravely and delicately, as if it were the key,
and then he wanders among strangers all he wants.

Dorianne Laux (1952 –), the author of several collections of poetry. She was elected a Chancellor of the Academy of American Poets in 2020. Among her awards are a Pushcart Prize, an Editor's Choice III Award, and a fellowship from the National Endowment for the Arts. Her poems have been translated into French, Italian, Korean, Romanian, Afrikaans, Dutch, and Brazilian Portuguese.

The Life of Trees

The pines rub their great noise
into the spangled dark, scratch
their itchy boughs against the house,
that moan's mystery translates roughly
into drudgery of ownership: time
to drag the ladder from the shed,
climb onto the roof with a saw
between my teeth, cut
those suckers down. What's reality
if not a long exhaustive cringe
from the blade, the teeth. I want to sleep
and dream the life of trees, beings
from the muted world who care
nothing for Money, Politics, Power, Will or Right,
who want little from the night
but a few dead stars going dim, a white owl
lifting from their limbs, who want only
to sink their roots into the wet ground
and terrify the worms or shake
their bleary heads like fashion models
or old hippies. If trees could speak,
they wouldn't, only hum some low
green note, roll their pinecones
down the empty streets and blame it,
with a shrug, on the cold wind.
During the day they sleep inside
their furry bark, clouds shredding
like ancient lace above their crowns.
Sun. Rain. Snow. Wind. They fear
nothing but the Hurricane, and Fire,
that whipped bully who rises up
and becomes his own dead father.
In the storms the young ones
bend and bend and the old know
they may not make it, go down
with the power lines sparking,
broken at the trunk. They fling
their branches, forked sacrifice
to the beaten earth. They do not pray.
If they make a sound, it's eaten
by the wind. And though the stars
return they do not offer thanks, only
ooze a sticky sap from their roundish
concentric wounds, clap the water
from their needles, straighten their spines
and breathe, and breathe again.

Emily Dickinson (1830–1886) was an American poet. Little-known during her life, she has since been regarded as one of the most important figures in American poetry. Although much of the early reception concentrated on Dickinson's eccentric and secluded nature, she has become widely acknowledged as an innovative, proto-modernist poet. The world of nature and plant life, in particular, were significant themes in her poetry. Dickinson's herbarium, which is now held at Harvard University, was published in 2006 as *Emily Dickinson's Herbarium*. The original work was compiled by Dickinson during her years at Amherst Academy, and consists of 424 pressed specimens of plants arranged on 66 pages of a bound album.

The Mushroom is the Elf of Plants

The Mushroom is the Elf of Plants —
At Evening, it is not
At Morning, in a Truffled Hut
It stops upon a Spot

As if it tarried always
And yet it's whole Career
Is shorter than a Snake's Delay —
And fleeter than a Tare —

'Tis Vegetation's Juggler —
The Germ of Alibi —
Doth like a Bubble antedate
And like a Bubble, hie —

I feel as if the Grass was pleased
To have it intermit —
This surreptitious Scion
Of Summer's circumspect.

Had Nature any supple Face
Or could she one contemn —
Had Nature an Apostate —
That Mushroom— it is Him!

Sylvia Plath (1932–1963) is credited with advancing the genre of confessional poetry and is best known for two of her published collections, *The Colossus and Other Poems* (1960) and *Ariel* (1965), and also *The Bell Jar*, a semi-autobiographical novel published shortly before her suicide in 1963. *The Collected Poems* was published in 1981, which included previously unpublished works. For this collection Plath was awarded a Pulitzer Prize in Poetry in 1982, making her the fourth to receive this honour posthumously.

Mushrooms

Overnight, very
Whitely, discreetly,
Very quietly

Our toes, our noses
Take hold on the loam,
Acquire the air.

Nobody sees us,
Stops us, betrays us;
The small grains make room.

Soft fists insist on
Heaving the needles,
The leafy bedding,

Even the paving.
Our hammers, our rams,
Earless and eyeless,

Perfectly voiceless,
Widen the crannies,
Shoulder through holes. We

Diet on water,
On crumbs of shadow,
Bland-mannered, asking

Little or nothing.
So many of us!
So many of us!

We are shelves, we are
Tables, we are meek,
We are edible,

Nudgers and shovers
In spite of ourselves.
Our kind multiplies:

We shall by morning
Inherit the earth.
Our foot's in the door.

Section

In resonance with the earth

We are pleased to introduce a new section of our journal, "In Resonance with the Earth." We see *poiesis* as providing the basis for human beings' creative responses to their environment. The arts in particular offer forms that crystallize these responses in ways that touch and move us. "In Resonance with the Earth" contains poetry, artworks, photography and poetic essays relevant to our theme. We encourage readers to find their own poetic ways of responding.



POEMS BY BEVERLEY A'COURT

This issue embraces a selection of poems by Beverley A'Court (Findhorn, Scotland). She has been practicing art therapy since 1981, pioneering holistic eco-art therapy. She is an advocate for the recognition of the place of poetic language, the body, ecology, and cultural wisdom traditions in art therapy. She made a selection of her poems and commented on them in the following way:



BEVERLEY A'Court

BSc.Soc.Sci. (Joint hon. Phil. & Psych.), Dip. A.T., registered art therapist (UK), a long-term member of the Findhorn Foundation Community, currently in private practice

These 'praise poems' literally 'spring,' bubble up as I walk, often wholly as written here and sometimes with repetitions which I may, as here, edit out some time later.

The 'Homage to our Lady' poem was inspired by the Orkney poet George Mackay Brown, and is a gathering of familiar N E Scottish agricultural images and associations, woven together with gratitude and devotional feelings I associate with our local 12th century Benedictine Monastery, where 26 monks live in silence and keep a warm, welcoming and healing place of spiritual sanctuary many locals go to for contemplation. I enjoy playing with traditional structures in poetry, while expressing personal themes.

I believe that as we relax, we can feel ourselves as nature and when we quieten or remove our attention from the 'white noise' of strain and effort, as Feldenkrais so well described, and can listen to ourselves, our own body as part of nature, with natural forces pouring through us.

Imagination, as well as the somatic sense, is the symbolic medium through which this unity of flow is experienced in consciousness.

Often my walking songs and poems feel as if they come from 'outside' me, I am being sung rather than singing. This is an ancient experience written about by many artists.

SongWalk. A day walking in Northern Portugal

A wandering walk; following invisible songlines,
a river of conversation
between body and land,
feet and lungs, paths unfolding
from the dreaming machair*,
pines and cedars speaking back
in whispers, breezes conjuring
seas of sound
and from my body, a spring of song.
Beings hear my being sung, my prayer-full anthem
limbs swinging in lilting rhythms and
mica-feathered moths and
skittish lizards, brown as dung,
butterflies like palm-sized angels,
black-wings trimmed in
gold and acid yellow,
twin wrens
dipping through the pines, and swaying eucalyptus,
their bark unfurling papery ribbons
lemon-green and amber ochres,
last year's strands black crackling underfoot,
along the track
and my praise-song,
footfall after footfall, limbs and river
one fluid wandering world,
one choir.

**A machair is a fertile low-lying grassy plain found on part of the northwest coastlines of Ireland and Scotland, is the distinctive ecology of pebbly sand dunes, heathers, tiny alpine-like wildflowers and some rare lichens found around the Scottish coastline. It is very pretty as the pale white (in some places shell) sand is luminous against the smoky grey skies we often have. (B.A.)*

Lady of the North East. (after George MacKay Brown)

Homage to Our Lady of Honey,
In the light between the silks of the honey-bee's back.

Homage to Our Lady of Secret Knowledge,
Between the plum's flesh and its skin.

Homage to Our Lady of Understanding,
In the thistle's kiss, the whale's eye.

Homage to Our Lady of Involvement,
In the punctured rain-drop,
In the baptism of rain-on-skin,
In the drenching.

Homage to Our Lady of Irrevocable Poetry,
In the planes shot down by 'friendly fire',
In how we always love our enemies.
In reflections.

Homage to Our Lady of the Loyal Heart,
In the upstream salmon,
In the father who hits the bottle not the child.
Angels who fall and never cease from bearing all our weight.

Homage to Our Lady of Music and Constellations,
In the song of the deep-sea jellyfish,
In the rays of the harbour sun-star,
In Cassiopeia dispersed among the waves.

Homage to Our Lady of Caring for the Land,
In the earthworm,
In the furrow's sun-cracked, rain-glazed sides.

Homage,
In the waist-high barley, her festival of feathers.

Purple Lake / 21 lines (after Malaysian Pantun style)

The Dalai Lama sits blessing the land,
tulips are opening, snow melting,
while sadness lives in me like a purple lake.

When my son hugs me, he plants an anchor in my heart.
We feed the birds
and the window fills with trembling and feathers.
The longing for sunlit mountains sticks in my side like an arrow,
this yearning I wear like plumage, like victory.

Tulips are opening, snow melting.
We feed the birds.
When my son hugs me, he plants an anchor in my heart,
and the window fills with trembling and feathers.

Feeding the birds,
this longing for sunlit mountains
sticks in my side like an arrow,
the window fills with trembling and feathers,
the yearning I wear like plumage, like victory.

The longing for sunlit mountains sticks in my side like an arrow,
the Dalai Lama blessing the land.
This yearning I wear like plumage, like victory,
while sadness lives in me like a purple lake.

The Company of Birds & Hares

I.

Returning from the day's long walk,
away from the human world of talk
and war-torn thought,
turning over in my palm like a warm found stone,
my day among the lives and voices of my other kin;
sea-birds, bees, hares, moths and butterflies.
Slow-walking hours, side-by-side, low-gliding
arm's length away, fulmars, touchable,
lover-like, dark eye-gazing.
"They'll dive-bomb, go for you,
drive you out and off their cliff"
"Aggressive birds."
Under the scooped arcs of skuas, great and arctic,
peat-dark wing-tips snow-flecked, loosened
chunks of moor,
slow to get airborne but once
high, dark angels spiralling in currents, playing eagle.

Each day one pair, sky-dancing, accompany me
pausing when I pause, perching, wings folded on a nearby rock
while I sit in meditation and when I sing, raise feathered arms
and stare straight at me, seem to breathe with me
same salt, same light, same ocean.

Dusk, turning the cliff's last curve, there
they were, falling into place outside my door, seeing me safely home.
"They watch us, closely, enemies, they want to see us off and gone..."
I make tea and mutely long for feathered arms, moss and flower pillows,
and the stream that was a path, all warm and brown and flowing
wordless song.

II.

All day, for days, in flowered, furred and feathered prayer,
with hares, who, when I chant, turn and run back along the path towards me,
so unexpectedly, so suddenly
I'm the one who freezes in surprise.
All day in reverence for lichens, yellow trefoils, wings and sea,
for alpine gardens, dust of flies,
and bees clung-on to wind-sprung heather bells.
All day with every living thing so close in touch and taste and sharing
space and breath and moisture,
glorious in our woven freedoms.

III.

Each cell is petal to a distant star,
each breath a tropic wind, blown home,
Each tiny move sends tremors far
to distant hearts and bone.
We blink and spring a shiver in the leaves,
our hunger engine hums the buzz of bees,
and every step we walk dislodges, frees
the captive birds of love,
to dance the breeze.

I saw the Geese

And when we die & they ask,
'What did you see?' I'll say;
I saw the geese;
carried in wind
like winged seed-cases,
a black-flecked & breaking strand across
the sky, above our heads, our house,
the line of an invisible wave,
their gently modulating 'V'
forming and reforming,
ribbonning,
in ever-changing places
in rippling rivulets,
& then their streaming down
like wind-blown, falling seeds,
all spin and flicker,
filling the open sky,
showering the fields,
and sunset sand-flats
with wing-beating,
heart-beating
life.

Lain

Sleeping in my clothes;
So simple, to lie down
wherever you find yourself,
on sand, stone, pavement,
floor...
What disturbance
it creates,

this simple act of unstanding,
lying down
without apparent cause,
permission,
purpose.

A sudden stricken one,
or saint, perhaps,
or revolutionary? A
taker-of-freedoms,
a feral body in charge
of itself?

Listen to the Leaves

See how we free ourselves,
say the leaves,
how far we fly.
How vast our reach is,
now
we have left the branches.
What tree is big enough
for us
who fill a whole sky?