

Greening as a strategy to address the civilizational crisis

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Rodrigo Arce Rojas

FIA – Doctorado en Ciencias e Ingeniería, Universidad Nacional de Ingeniería, Peru

Correspondence: Rodrigo Arce Rojas, FIA – Doctorado en Ciencias e Ingeniería, Universidad Nacional de Ingeniería, Peru**Received:** March 28, 2026 | **Published:** April 13, 2026

Opinion

In the history of human thought, a significant milestone was Descartes' contribution, who explicitly incorporated analysis as a method for understanding reality. This method was later legitimized by positivism, a movement that advocated the separation between the natural and social sciences, and more generally, between science and philosophy, the humanities, and the arts. There is no doubt that Cartesian, Newtonian, and positivist thought has played a fundamental role in the development of technoscience, and will continue to do so. However, it must be acknowledged that this way of thinking has its limitations in addressing the complexity of reality.

The influence of analytical thinking remains evident today in the structure of disciplines, as reflected in the classification of scientific areas according to the Frascati Manual,¹ the organization of universities into faculties, schools, and departments, and in public administration, manifested in ministries, institutes, and specialized agencies, among other designations. Thus, analytical thinking continues to be highly relevant today.

Ecology, for its part, initially emerged as a field of study within the natural sciences, but it soon became too limited and has expanded to unimaginable levels. For example, it initially encompassed community and ecosystem ecology, systems ecology, dynamic ecology, and complex systems ecology.²⁻⁵ Haeckel⁶ Furthermore, they have burst onto the scene Transdisciplinary fields such as human ecology, social ecology, cultural ecology, urban ecology, industrial ecology, political ecology, the political ecology of emotions, and socio-ecological ecology, among others.⁷⁻⁹ From the field of social sciences and humanities, expressions such as the ecology of knowledge have emerged, and specifically in the world of management, the term "ecosystems" is used, such as the business ecosystem or the innovation ecosystem. From the field of philosophy, Morin speaks of ecological thinking.¹⁰⁻¹²

What can be observed is that the restricted conception of Ecology has broadened significantly and become more complex, acquiring a holistic concept. Although this process of increasing complexity has multiple manifestations, there is still a strong imprint of analytical thinking. A key milestone in this process has been the shift towards human decentering, which leads to a broader understanding of the relationships between human beings and nature, and to the recognition of continuities between human beings, nature, information, technology, and even the cosmos. Although ancient cosmocentric civilizations existed in both Asia and the Americas, the modernization process reinforced the separation and primacy of human beings over everything else on the planet. Thus, human exclusivism was enshrined on the one hand, and on the other, humankind's arrogant isolation and disconnection from the web of life and the cosmos.

However, more interconnected approaches have been developed, such as Morin's Homeland Earth.¹³ Other, or more than human, sociologies and anthropologies, such as multispecies ethnography,¹⁴ also contribute to this understanding. Modern schools of thought recognize the continuities between human beings, nature, and the cosmos. Specifically, Penrose's contributions¹⁵ allow us to recognize the great cosmic unity to which we all belong, insofar as matter is constantly transforming and life forms are nothing more than temporally self-organized structures that, thanks to biogeochemical cycles and flows, have been changing form since the beginning of time. Along the same lines, Coccia¹⁶ affirms that there is one and the same life to which we all belong, under constant transformation.

From all that has been said, it can be concluded that today, talking about Ecology no longer refers solely to a specific field of knowledge that deals with the relationships of organisms with their environment. The current conception of the environment implies recognizing a shift from nature as the environment to the recognition, first and foremost, of the complex Earth System; from isolated ecosystems to the interconnected planetary network; from local processes to the recognition of global dynamics; and from Anthropocentrism to the adoption of a planetary and cosmological perspective. In this way, Earth System sciences, global biogeochemistry, Complex Systems theory, space sciences, and astrobiology are integrated.¹⁷⁻²¹ Consequently, talking about greening today implies recognizing the interrelationships, interactions, networks, plots, the fabric of which we are a part.

Whether it's that everything is connected to everything, or something is connected to something, the interrelationships inherent in complexity highlight the Interdependence between natural and social processes, the articulation of multiple scales (biological, temporal, social), and the systems that intertwine and co-determine each other.^{22,23} Ecologizing thought involves overcoming reductionist and linear views and incorporating a multidimensional (and interdimensional), multiscale, and multitemporal approach. This way of thinking is fundamental today in recognizing the civilizational crisis that afflicts us.

At a time in history when far-right radicalism is on the rise, undervaluing reason, dialogue, argument, and human rights, and reviving positions thought to be outdated, such as racism and classism, recognizing human, socio-ecological, and cosmic interdependence is crucial. At a time when there are demands for more production

and productivity, even at the expense of social and environmental dimensions, acknowledging our kinship with all forms of life is essential to shifting from the primacy of economic growth and the market toward recognizing the intrinsic value of life. Ecological thinking, which encompasses the evolution of concepts oriented toward planetary citizenship—including all inhabitants of the Earth, regardless of taxonomic classification or whether they are organic or inorganic, biotic or non-biotic, or even life or non-life—reminds us that we all share the chemical alphabet and that our origin and destiny are inextricably linked to the cosmos. This has implications for cosmic bioethics and socio-ecological justice. A civilization driven by an anxious pursuit of accumulation reveals how much we need to reconnect with the whole. It is a way to confront the civilizational crisis and participate in the emergence of a new, more sustainable civilization—a biogeocosmocentric civilization.

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Conflicts of interest

The author declares there is no conflict of interest.

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