

Remove the Asphalt Paving: De-Modernism

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Abstract

This study explores the urgent need to shift our understanding of sustainability from a human-centered perspective to one that recognizes our interconnectedness with the Earth. It critiques modernity's focus on material wealth and advocates for a transformative worldview that values ecological balance. The paper emphasizes fostering community engagement and sensibility towards the environment by integrating interdisciplinary approaches, critical reflection, and artistic expression. Ultimately, it calls for a profound re-evaluation of our relationship with nature, urging a collective commitment to reimagine our place within the ecosystem and cultivate ecological and cultural "soil" for future generations.

Keywords: Non-human; symbiosis; de-modernism; sustainability

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1.0 Introduction

In employing the term "sustainability," it is crucial to critically examine what we aim to sustain. I approach this term cautiously, as it often carries a tone of hubris, suggesting an intent to perpetuate our prosperity. However, if sustainability is understood not as preserving human abundance but rather as safeguarding a planet in peril, then its usage is justified. However, it is for terminology highlighting our responsibility to maintain the Earth—a planet of inherent abundance—and promote a harmonious coexistence. Our focus should be on sustaining the globe and fostering a balance between human life and the longevity of the Earth.

Humans are often driven by the pursuit of monetary and material wealth, exploiting the Earth for profit and development. However, we fail to grasp the gravity of the Earth's precarious state fully. The Earth's crisis is inherently our crisis. This necessitates a fundamental reassessment of the affluence we unthinkingly chase and reconsider our way of life. Living in the modern world is akin to walking on a road paved with asphalt, oblivious to the soil and Earth's crust beneath our feet.

Stripping away this metaphorical asphalt is essential for achieving true sustainability. The asphalt, a symbol of modernism, prompts us to question: How can we deconstruct modernism? This task is fraught with challenges, including the dangers of nostalgia, romanticism, historicism, and patriotism. Is it possible to unlearn modernity without succumbing to these pitfalls? How can we distance

ourselves from the influences of modernity, Western-centric perspectives, and neoliberalism? Moreover, how can we liberate ourselves from the allure of modern affluence?

2.0 Literature Review

To talk about soil now is to talk about where we stand and our future. It is a move away from a perspective that has been fragmented, simplified, and favored by utilitarian systems in the name of modernity and production and towards a worldview of multi-perspective work and engagement. The COVID-19 pandemic began in 2020 and has reversed the capitalist or neoliberal idea of faster, more, and further. This has been ingrained in our consciousness, like an obsession. Faster, more, and further to beat the competition. It has become the norm to internationalize for the world market, to fly abroad in our spare time, and to use technology to transmit and spread images and information, not substance, around the world. However, prolonged lockdowns and other factors have restricted our activities, and we live in a world of individuals, families, and neighborhoods. In doing so, we have rediscovered something important in our immediate world that had been forgotten: the slowness, the staring, the gaze, the touch (tactile, tangible).

My gaze went to the soil, to the days when I could slowly watch the plants sprout, flower, bear fruit, and then wither, preparing for the next life. This is where I stand, this is where I live and think, the horizon, the ground, whatever you want to call it, this is where I stand, on the earth. I am standing here on the earth, and I live on the food that the earth gives me. I am alive because of my relationship with the land and the soil on which I stand. However, we do not know much about the soil, even though we receive information from all over the world daily on social media. So, when I turned my attention to the soil, I was surprised by the richness of this world and learned that the perspective from the soil can shake the formation of the world and even epistemology itself. By looking at the soil, I saw the hidden half of the world I had not been looking at.

Soil may appear inorganic, but it is home to countless microorganisms. The invention of the microscope in the 18th century led to the scientific recognition of microorganisms. In the late 20th century, the diversity and function of microorganisms in soil became the focus of much attention. Massive research has identified less than 1% of micro-organisms, providing a new perspective on global biodiversity (Madigan et al., 2019). The soil was created by weathering rocks into fine rock particles, which were transformed into the soil by water, organic matter, and atmospheric microorganisms. Soil is not only the solid phase of sand and clay but also contains water and air, and the plants and trees that grow in the soil secrete organic matter that dissolves the rocks below. Those rocks become differentiated, micro-organisms are activated, humus accumulates, and new soil is created.

Plants produce oxygen from the sun, water, and carbon dioxide and absorb inorganic elements as nutrients from their roots. Animals breathe in the oxygen plants produce and consume plants for their nutrition. Plants and animals return to the soil in the form of fallen leaves and bodies, which microorganisms decompose to produce inorganic elements within the soil once again. This is called the 'material cycle'; soil is a critical stage. The micro-organisms living in the soil are called 'decomposers' or 'reducers,' while plants, which produce organic matter, are sometimes called 'producers' and animals, 'consumers.' The cycle of life initiated by soil microorganisms is sometimes referred to as the 'detritus food chain (humus chain)' (Tatsushi, 2019).

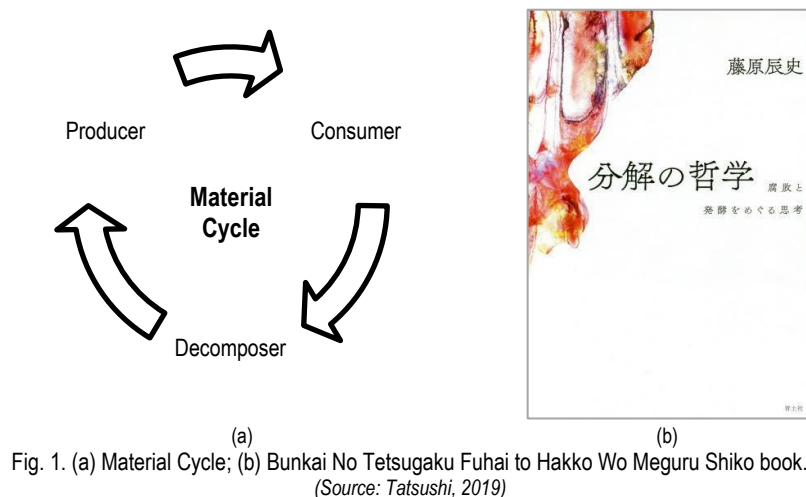


Fig. 1. (a) Material Cycle; (b) Bunkai No Tetsugaku Fuhai to Hakko Wo Meguru Shiko book.
(Source: Tatsushi, 2019)

The great cycle of life, from the death of an organism to the creation of new life, begins with the micro-organisms in the soil. We live in this extended, slow circle of life processes to which we are utterly oblivious in our daily lives. We buy food in convenience stores for quick energy and take vitamins when we need more nutrition. We do not work within a vast cycle but in a utilitarian, one-to-one way. Nevertheless, many people escaped the hustle and bustle during the pandemic, went into the woods, grew crops in their small gardens, and started baking bread at home. The gardening section of the local home improvement center was bustling with activity. It may seem small, but many insights come naturally when we let off the gas a little in our driven lives.

3.0 Methodology

This study employs an interdisciplinary framework that synthesizes insights from environmental science, sociology, philosophy, and art to cultivate a nuanced understanding of sustainability challenges. The theoretical framework incorporates principles from ecological philosophy, the Anthropocene concept, and critiques of modernity, aligning them with artistic practices. The methodology unfolds in three core steps:

1. **Critical Reflection:** The study engages in a comprehensive critique of preconceived notions of modernity and its impact on sustainability. This involves deconstructing dominant paradigms such as neoliberalism, materialism, and anthropocentrism, using an ecological lens to reveal their limitations.
2. **Artistic Exploration:** Artistic expression functions as both a medium and a method for exploring and conveying the interconnectedness between humans and the environment. Through installations, visual narratives, and community art projects, the study brings abstract sustainability principles into tangible, relatable forms that resonate with diverse audiences.
3. **Comparative Analysis:** The research juxtaposes ecological philosophies, such as symbiogenesis and mutual aid, with anthropocentric frameworks, highlighting the shifts necessary for a systemic rethinking of humanity's place within Earth's ecosystems. Field observations and studies of soil ecosystems serve as empirical evidence, grounding theoretical constructs in observable realities.

These methodologies aim to uncover the intricate relationships that define our ecosystem, emphasizing the need for a paradigm shift from dominance over nature to symbiosis with it.

4.0 Findings

The study of soil and soil micro-organisms reminds us of the diversity of life on Earth and the extraordinary life cycles. It is unnecessary to name the many lives, inorganic things, agents, and actors that make up the world in myriad relationships. We live in a place and an environment; as Kitaro Nishida said, "I am a place" (Nishida, 1987). The number of cells in our organism is said to be 60 trillion, but the number of bacteria and micro-organisms in our bodies is over 100 trillion (Sender et al., 2016). We do not exist only as individuals; we already live with many others. I exist in this duality of others and myself.

Recent research has pointed out many similarities between plants and us humans (Fig. 2), such as the structure of the intestine and the underground stem and roots of plants (Jacoby et al., 2017). Our gut is like a plant root structure turned inside out, and we take in nutrients from the gut just as plants take in nutrients from the soil. Our bodies take in nutrients broken down by micro-organisms living in the gut, just as plants take in inorganic substances differentiated by micro-organisms in the soil.

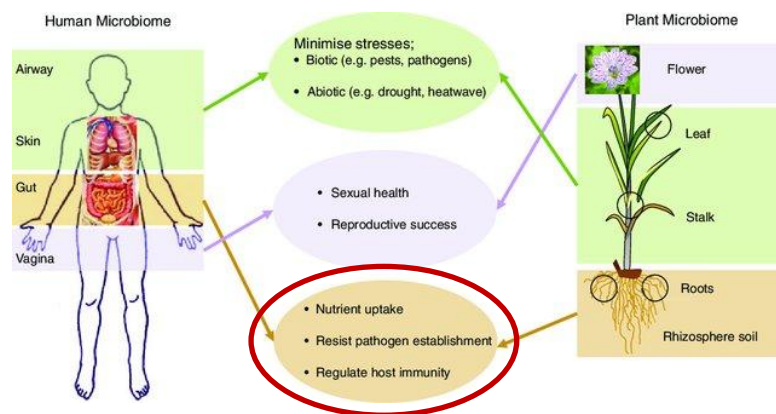


Fig. 2. Similarities between plant and human; comparison the structure of the intestine to the underground stem and roots of plants.

(Source: Singh, B. K. et al., 2018)

Studies of the DNA of trees have shown that in aged trees, the genetic sequences of the branches are frequently diversified as if each branch had its own genetic information. This is why botanists say trees are colonies rather than single organisms (Clément, 2015).

Microbiologist Lynn Margulis, known for co-developing the Gaia Hypothesis with James Lovelock in the 1970s, focused on 'symbiogenesis,' a term coined by a Russian biologist in the 1910s, and argued that cooperation, interdependence, and mutual aid are the driving forces behind evolution, as opposed to classical evolutionary theory, which focused on competition as the driving force (Margulis, 1999). She proposed that symbiotic relationships between micro-organisms are the basis of multicellular organisms and that mutually supportive relationships are the key to the origin of life. Higher life forms evolved when one cell took in another cell and kept it alive.

This is a significant paradigm shift for those of us who have studied and believed in the 'competitive' cycle of life in the theory of evolution. However, this theory may be somewhat familiar to those who have studied anarchism. Kropotkin's 'mutual aid' theory, which contributed significantly to the theoretical development of anarchism, was derived from his research in Siberia, where he was also a biologist (Kropotkin, 1902). Even though Darwin himself mentioned the importance of interdependence in *The Descent of Man*, which followed *On the Origin of Species*, Darwinists "assumed the primitive man to be a beastly creature who survived by snatching the last

scrap of food from his neighbor's hand *by tooth and claw*" (Bowler, 1992) Kropotkin criticized Darwinists such as Herbert Spencer, who replaced the theory of natural selection proposed in Darwin's *On the Origin of Species* with the competitive principle of 'survival of the fittest' and applied it to sociology and ethics. This view of life may have much to do with the Victorian era when those ideas dominated the world economy (Graeber, 2015). Kropotkin's theory of mutual aid, which the world's scholars widely recognized at the time, was the basis of his theory of anarchism, linking the nature of the life system to that of the community and the political system. This led to anarchist anthropologist David Graeber's reconceptualization of anarchism as 'anarcho-communism.' During his research, Graeber observed an interesting phenomenon in a village in Madagascar. The central government was still in place but had effectively withdrawn its control, yet the rural community was practically self-governing. It has been thought that when a human being suffers a breakdown in the social system or a natural disaster or war, panic sets in, and the wicked nature of man is exposed, with no regard for others. However, recent research suggests that this does not happen and that man's capacity for mutual aid comes to the fore (Graeber, 2004). In Japan, we have seen the power of community and the mutual support of others in the aftermath of repeated earthquakes. There is a reaffirmation of the inherent mutual support and survival of humans and organisms, which also leads to a reaffirmation of anarchism.

The ideas of mutual aid and symbiogenesis have also been considered deeply in Buddhist thought. Buddhism sees the phenomena of the living system as it is, denies the ego-generated 'I' and its fixed worldview, and invites us to free ourselves from its confinement. The Vietnamese Buddhist monk Thich Nhat Hanh, who taught Buddhist thought and practiced in his translation of Western ideas, describes the nature of the world as 'inter-being,' aiming to liberate us from the problems of anxiety arising from the obsession with the 'I.' This is an essential concept because it includes the dependent aspect of inter-dependency and the spontaneous aspect of existence and life itself.

Just as a piece of paper is the fruit, combining many elements called non-paper elements, the individual is made of non-individual elements. If you are a poet, you can see a cloud floating on this sheet of paper. Without a cloud, there will be no water; without water, the trees cannot grow; without trees, you cannot make paper. So the clouds are in here. The existence of this page is dependent on the existence of a cloud. Paper and cloud are so close. Let us think of other things, like sunshine. Sunshine is essential because the forest cannot grow without sunshine, and humans cannot grow without sunshine (Hanh, 1987).

As David Montgomery and Anne Bikle observe in *The Hidden Half of Nature: The Microbial Roots of Life and Health* (Montgomery & Biklé, 2015), the realization that microbial partnerships are common and essential is reshaping how we see our relationship with the hidden half of nature. Turning our gaze on soil and microbes invites us to a new epistemology of the world. This impact is similar to the mindset shift in the early 20th century triggered by the microscope, which revealed the previously unknown structure of cryptogam plants and showed that they are not inferior to the structure of flowering plants. Kumagusu Minakata's (Kumagusu, 2015) fascination with slime mold (Fig. 3), which is neither a plant nor an animal, led him to develop his view of life and the world. He was searching for a new theory of life rooted in East Asian ideas, and we continue to grapple with his questions about the kind of world we construct from the study of nature and our views on life.



Fig. 3. Dog Vomit Slime Mold.
(Source: Koskinen, H., in George, S. C., 2023)

5.0 Discussion and Conclusion

Since modern times, art, culture, and education have been described and theorized using the production metaphor. This view of the world from the soil, from the hidden half of the world where the living system is not visible, is also a shift from the perspective of production to development. There, we gain a new perspective that is not based on superstition, fabricated traditions, history, or utilitarian science. In the world's capitalist vision, economic activity matters, and production, not generation, is what counts. However, if we think about life, we can see that generation is most important. Life is not something that can be produced. Creation and education should be reconsidered from the logic of generation, not from the logic of production. Life exists within a cycle of birth and death, decomposition and fermentation. What has been abhorred and avoided as rubbish or putrefaction is merely the result of a narrow perspective. Putrefaction and fermentation are the transformation of materials by microorganisms, but what is seen as beneficial to human beings is called

fermentation, and what is harmful is called putrefaction. It is important to watch closely whether our education brings about decay or fermentation.

For those of us living in Japan, the Great Hanshin-Awaji Earthquake of 1995 and the Great East Japan Earthquake of 2011 remain not just memories but have shaken the landscape of how we see the world. Both the images on the TV news and reality itself surpassed our imagination. The disasters served as reminders that the forces of nature are beyond our control and that the attempt to complete the world through human power since modern times has been reckless. In Japan, there was talk of the need for a significant shift in thinking, but that conversation faded ten years after the Great East Japan Earthquake (Nakazawa, 2011). In 2011, the concept of the Anthropocene was already being proposed, pointing out that human activities are having a significant impact on the planet at a global scale. The frequency of disasters caused by extreme weather and climate change has led many sociologists, anthropologists, philosophers, and scientists to propose new ways of thinking about the world. Many of them have begun to argue for the importance of moving away from the human-centered view of the world to a view of the world from the perspective of the Earth itself, from the perspective of a living organism that is separate from the human world.

How can we demodernize our understanding of humanity and broaden our perception to include the latent yet interconnected agencies and environments, such as the soil that sustains us? Bruno Latour once enthusiastically proposed the necessity of "composting" (Fig. 4) the etymology of our ontology, suggesting a profound shift in how we conceive of ourselves; "It is perhaps time, in order to stress this point, to stop speaking about humans and to refer instead of terrestrials (the Earthbound), thus insisting on humus and, yes, the compost included in the etymology of the word human" (Latour, 2017).



Fig. 4. Composting.
(Source: ECEPL, 2024)

The future of humanity hinges on our ability to unlearn modernity and adopt a new, planetary perspective—one that transcends the pitfalls of nostalgia and nationalist ideologies that have unconsciously shaped our worldview. The wisdom and philosophy of the East may offer a valuable lens through which we can imagine our relationship with the Earth and others. With the Sustainable Development Goals for 2030 now less than six years away, is it not imperative to move beyond mere revisionism and pragmatic coping strategies and fundamentally alter our human-centered worldview?

Ichiro Endo, who identifies himself as a "future artist" and often embodies the mythical Kappa when engaging with society, once shared his guiding philosophy for life with me. "To be human, you must not be human (Endo, 2020)." This paradoxical manifesto perfectly illustrates our current situation, where it is crucial to have a different point of view, a view not only of nature and the earth but also of existence outside ourselves.

In conclusion, this study calls for a fundamental re-evaluation of our understanding of sustainability and our relationship with the Earth—the soil itself. It highlights the lingering impact of a modern, human-centered worldview on our ecological sensibilities and modalities of thinking that prioritize economic growth and material wealth over the ecological equilibrium of the environment we inhabit. By fostering a deeper awareness of our interconnectedness with the environment, we can begin to unlearn the habits and ideologies that have led to ecological degradation. It calls for interdisciplinary approaches incorporating insights from various fields, encouraging critical reflection and community engagement to develop sustainable practices that honor life cycles. Only by embracing a planetary perspective that transcends the paralyzing constraints of nostalgia and nationalism can we cultivate a mode of existence that aligns with the Earth's rhythms. A sustainable future demands nothing less than a radical overhaul of our worldview—one that decisively shifts from exploiting the planet to safeguarding its ecological integrity for future generations.

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Paper Contribution to Related Field of Study

This paper redefines sustainability by shifting the focus from human-centered prosperity to ecological health, critiquing modernity's materialism and advocating for de-modernization. It bridges art, philosophy, and environmental science to promote regenerative

practices, benefiting policymakers, educators, and communities by offering innovative frameworks for sustainable development and environmental engagement.

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