



## Research Article

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# Reconceptualizing Nature, from Extant to Extinct: A Discourse on Material Ecocriticism

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### Abstract

*The paper studies the evolution of human race in parallel with the devolution of environment. From the pre-medieval times to the present day, plethora of changes have been observed in humans and in nature. While one has doubled, the other continues to be savaged. The paper asks questions such as What does conservation mean? Does economy surpass nature? What kind of future are we passing down? The paper is also a discourse on the thoughts of ecologists, environmentalists, and ecocritics such as Rachel Carson, Thomas Berry, Cheryll Glotfelty, James Lovelock, Aldo Leopold, David Suzuki, Vandana Shiva, and Bernard Campbell. It examines the disparity between 'habitat' and 'being'. 'Habitat' in this case is the nature as a whole and 'being' is us. The paper studies the factors that have led to the depredation of nature: ecological footprint, loss of biodiversity, consumption, hyperconsumption, economy over nature, urbanization, climate change and globalization. Through the multitude of events in the past and present it is evident that nature has to battle against two major forces: technology and humankind. There has always been a rift in the balance between coexistence of nature and us, which calls for the existence of a harmonious relationship as we have always been part of nature.*

**Keywords:** Nature, Superspecies, Ecological Footprint, Biodiversity, Consumption, Urbanization, Materialism

## 1. Introduction

Tell me the story of the river and the valley and the streams and woodlands and wetlands, of shellfish and finfish. A story of where we are and how we got here and the characters and roles that we play. Tell me a story, a story that will be my story as well as the story of everyone and everything about me, the story that brings us together in a valley community, a story that brings together the human community with every living being in the valley, a story that brings us together under the arc of the great blue sky in the day and the starry heavens at night (Berry 1988: 96).

In his 2010 book *Environmental Communication and Public Sphere*, Robert Cox, the renowned environmental communication expert, explained how communication can help people connect with the environment. Cox focuses on developing effective ways of communicating with the public about the damage that has been done to the environment. This includes the pollution caused by industrial refuse and the soil that has been contaminated with chemicals. According to him, communicating about the environment can motivate corporations and social groups to invest in clean energy. There has always been a difference between the sense of being envired and sense of belonging. In addressing complex environmental issues, communication is an integral part of addressing these issues.

It is also necessary to make the world more hospitable for all life forms that co-existed here. Politicians, business leaders, and environmentalists claim the right to speak for nature. Who should speak for the interests of society? For instance, if oil drilling is permitted for offshore platforms near fragile coastlines, who should be responsible for cleaning up the toxic waste sites that accumulated? Communication is a crucial aspect of environmental communication, which is related to the idea of changing one's relationships with the world. This concept is confined within the constraints of human signifying systems. This approach, which is based on the idea that communication is a diagnostic point, proposes that society's collective intelligence is focused on developing a narcissistic view of the world. To contest this view, we first need to understand that life is semiotic, which is rooted in the biosemiotic foundations of biological processes.

There are many signs that the world communicates with its mind. For instance, the organisms that live in the environment communicate with each other using various structures and methods. Human language is just one of the many facets of semiosis, which scientist Wendy Wheeler refers to as the idea that all living things have communication systems. She believes that all life has a communication system. Eduardo Kohn (2013) also noted that signs are not limited to the human body. They can also be interpreted by other living things. Instead of reducing the anthropocentric approach to communication, it is proposed that we reorient our understanding of the world by considering the various creative and performative enactments that nonhuman species produce. The traditional worldview assumes that the material world is inert and cannot provide meaningful expression. This worldview has also been used to define the various

social and political divisions within society. The new materialist paradigm states that everything on earth is capable of producing generative powers or agentic capacities. This paradigm claims that matter is equipped with a variety of ontological capabilities, such as self-organization and productive agency. Communication can be a prelude to what Donna Haraway calls becoming with each other, which is what she refers to as the material-semiotic means of relating. It can be seen as an act that is not confined to the literary skills of human scribes. We are always engaged in acts of becoming with others. According to Haraway, we become with others because we think, act, narrate, and come into existence through each other. Becoming with is an event that draws on the various forms of life that exist in the world. It is a multispecies event that demands an affirming relationship between the human and everything that is beyond the human. Nature is often referred to as “*materia loquens* or *natura loquens*”. It is an event that is intentional and articulate.

Environmental communication is reformed on the basis of the various social complexity and evolutionary innovation. It is then revealed that all forms of communication have the potentialities to create astonishing stories and textures. Wherever we turn, we find expressions in every form of agentic matter. According to David Abram, the word telluric refers to the animate earth which, despite its various forms, still expresses itself in its own manner. We are surrounded by beings that have the ability to communicate with each other. In the material ecocritical paradigm, non-biological organisms also exhibit meaningful signs. This makes sense since, in its various forms, the world exhibits an ongoing performance. How can communication be seen as a human capacity? If we pay attention to the stories that non-humans tell us, we might be able to change the political discourse around our relationship with them. Material ecocriticism emerged from the new materialism paradigm. It developed its own practice by taking account of the transformative power of agentic matter, which is represented by the various representations of its expressive power in literature, art, and visual texts. Literature is known to open up the vitality of matter and extend it over time. Its ability to create performative mirrors that do not just reflect the world but also create worlds has been widely explored. According to Serenella Iovino (2016), literature helps reality perform its interconnectedness by helping us connect to the stories of matter. The expressive power of material agencies is much more than just a literary subject matter. According to materials ecocriticism, if a material is agentic, then it should be capable of expressing itself. In order to achieve meaningful communications, materials must not be limited to living organisms. For instance, non-living organisms such as bacteria can also express themselves through their non-locally-generated signals. Plants and animals can also benefit from the presence of signals. For materials ecocriticism, the concept of the universe as a series of interrelated entities that produce meaning is a compelling one. According to Karen Barad, the meaning of the world is informed by our cognitive practices.

Talking of storied matter means to look at the patterns of signification that appear

in the agency of things. It means that we see the world as a repository of an astonishing record of evolutionary history, which is deeply linked to our collective imagination. All matter is like a library that holds the various stories of Earth's evolution. If matter is storied, then everything must have the capacity of speech. The building blocks of narrative agencies are the symbols of enduring significance. All entities are bound by the signification process, which occurs when the world becomes more eloquent through the various signs that appear on it. There are many examples of how geology informs stories about the past, such as volcanoes and glaciers. Fossils also tell stories about the world's changing ecosystems. These stories are often formed by the interactions between organisms and their environment. They provide vital records of life as it evolved and continued to survive. The planet is full of material forms that act as an expression of the world's intra-active becoming. These forms of expression can be found in the vast spectrum of Earth's expressive communities. Material ecocriticism is a theory that shows that the world is made up of dynamic expressions that are made up of narrative agencies.

The word 'environment' denotes the physical habitat. The word 'eco' as in ecology is derived from the Greek word 'oikos', meaning house. However, many environmentalists believe that house is an embodiment of home which is the continuum for all species, human and non-human, to coexist and live in harmony. "Never since the Archaean period has a living thing evolved alone" (Scheffer 1993:7). All elements and all forms of life are vital in the space of earth. Nature is cyclical where one species' debris becomes raw material or opportunity for other species. All species exist in the intersection of nature's cycle which is often referred to as the 'web of life'. Plants photosynthesize and release oxygen in the atmosphere making the sustainability of all living species possible. Plants depend on specific insects to pollinate them and are fed upon by herbivores, herbivores are fed upon by primary and secondary carnivores. After the network has been processed, all of its parts are returned to Earth. All species play a part in this web of interconnectedness. The disappearance of a single species can alter the entire cycle. In his book *Landscapes of Fear* (1979), Tuan describes the landscapes of fear as being multitudinous and virtually uninhabitable. He goes on to say that the human construct contributes to the fear landscape because it exists to contain chaos.

Extinction is necessary for the evolution of species but the rate at which it has increased due to human despoliation is alarming. The loss of species indicates the depletion of the utility of organisms for humans. Extinction of a specific species indicates that the planet has become less inhabitable, which calls for a change in the perspective and conscious human activity. Damaging the web of life will eventually lead to the collateral damage for the evolution and existence of the species. An environmentalist David Brower has proposed a CPR (conservation, protection and restoration) program.

The question is how do we restore? For nature to restore, there should be a decrease in human depredation of the environment. The river Thames in England is as an example of a successful restoration. There are various ways to stimulate the natural

regeneration process, but first we have to control our destructive activities. We need to give sufficient time to nature's restorative powers to act. The planet's ecosystem is composed of consumers, decomposers, and detritivores. It uses energy and material collected by the organisms living within it. There has been biological warfare between host and parasite, predator and prey. The relationship between nature and humankind has seen huge changes since evolution. Nature's extinction can be a serious threat to humanity. There have been ecological surprises in the past such as the London Fog, Minamata disease, SARS virus, Indonesian tsunami, and H1N1 influenza that each posed a substantial threat to the humankind. The equilibrium between humans and nature can be either a success or a failure. Environment can assume an active rather than passive subjectivity in fighting back. Instances like splitting of atoms led to creation of atomic bombs which cause radioactive fallout leading to accumulation of debris in the atmosphere. The world's materiality emerges as a network where the dynamics of body and identity, nature and culture, bios and society collaborate with and be analyzed through each other.

James Lovelock formulated the Gaia Hypothesis which distinguishes life from nonlife. Earth is the only planet in its natural state that maintains a balance of carbon dioxide and oxygen in its atmosphere. According to Lovelock, technological advances have allowed us to generate vast amounts of greenhouse gases that are not yet removed by Gaia. Modern science and technology are identified to be 'occidental'. The rise of technological superiority has allowed humans to develop more sophisticated machinery and equipment, such as automation. According to Glotfelty, since both our scientific and technological movements got their start, they acquired their character and impact upon society has been studied. The correlation between habitat and being is at odds. Who is this being? Where did this evolve from? How did we get here? For the most part, we seem to have imagined our existence in the world. There are many fables or myths on origin of human species. The Haida tribe in the northwest coast of North America believe that a raven dropped a clamshell on a beach in Haida Gwaii. From the clamshell emerged the first human being. According to the Norse myth, Ymir had become the land, and his blood became the ocean. The Amazons also believe that Page Abe created the universe. Page Abe inseminated the Earth and arose Desana men. Most of the creation myths emphasize the web of coexistence of all elements of nature. Watsuji Tetsuro (2011:14), a Japanese philosopher, introduced the concept of *fūdo* or "milieu," which views that mankind usually thinks of the environment as a concrete object that has been taken out of its natural state. When we think about the relation between the human life and the environment, it becomes objectified.

It is believed that about five to seven million years ago *Homo sapiens* started evolving. At this point in the evolution, mammoths, moa birds and sloths had invaded the planet. Who would have thought what was in store for us? We were not huge in number nor our strength laid in speed or sensory acuity. We were endowed with survival traits. We were part of creation that gears towards adaptability. In the early

nineteenth century, we were one billion in number; since then, we have increased manifold. This increase had led to a huge ecological footprint.

The concept of an ecological footprint was first used by Mathis Wackernagel during his PhD thesis. Ecological footprint measures the human demand on nature for survival and economy. After ecological footprint, several other footprints have emerged. There are environmental-, economic-, and social footprint. Environmental footprints consist of carbon, water, nitrogen and sulphur footprints, which are associated with coal usage. Predominantly human combustion of coal leads to emission of carbon dioxide in the atmosphere. These footprints portray the human impact on Earth's ecosystems and civilization depends on generation of economy from nature. These footprints include biologically productive area required for the sustenance of humankind. The resources that go into the sustenance and development of humankind are the main reason for nature's depredation. Natural resources such as land, air, water, atmosphere, wood, fibres, non-human world (fauna and flora) are required for consumption and economy.

Biocapacity is the area for regeneration of humankind's demand from nature. Both footprint and biocapacity are subject to change with population changes, change in consumption, efficiency of production and fecundity of ecosystems. The choices we make in everyday life has a great impact throughout the world. Our huge ecological footprint raises the issue of our survival. Promoting a global market (for trade and commerce) and consumerism has led to depletion of natural resources and other species are now losing their habitat. Simon Nelson Patten believes that the new morality for humankind now lies in expanding consumption and not in saving. Consumerism geared towards all demographic groups through media and advertising. The rise of consumer goods demand during the twentieth century has required a steady economic growth to keep up with the increasing population. We have come to believe that wealth is the means to all human needs. Are we better off a society with driving economic growth?

The answer lies in the perspective of what is better for us. We have come to identify progress with increased consumption and happiness with material pleasures, which can never halt economic growth. Benjamin Franklin said that money can never make a man happy. Instead, it creates a void. Like Franklin, many believe that materialism can never be the key to satisfaction. What sufficed with consumption grew to 'hyperconsumption' in order to meet consumer demand for products at the cost of natural resources. Hyperconsumption was a phase of capitalism that takes into consideration to the global market demands rather than consumer demands. Industrial and government capitalists promoted a "cathedral of consumption" exploitation of natural resources to meet the pompous lifestyle. This led humankind to exceed the nominal level of consumption and into believing that material pleasures are to be derived for unceasing desires. The purchase of a new product can be an instant boost of happiness and achievement, but it can also lead to the emptiness that often fades as the novelty wears off. Progress or development has oriented toward urbanization. There has

been a shift from villages to cities which indicates conversion of agrarian lands into city landscapes. In a humanized environment, we surround ourselves with plants and animals of our choice. We try to confine the limits of nature. Despite being biological beings, humans are dependent on elements of air, water, soil and biodiversity. We fail to understand that weather and climate impinge far more immediately on a humanized environment.

Urbanization has converted streams into culverts, agrarian and forest area into city landscapes. Aristotle believed that the universe was composed of water, air, and fire. These elements were formed when different conditions prevailed. We can be identified with these elements and thus generate and sustain life. The connection between people, places and nature also helps us understand the social dynamics and identify and design pathways to sustainability. We have always been creatures of Earth and science or technology cannot change the fact. According to Watson, living things communicate with each other. Through a web of interaction, all life is connected to a self-sustaining system.

The forests along North America's west coast have a variety of organisms that thrive in its ecosystems. Some of these include the sitka spice, yellow cedar, and hemlock that flourish with less nitrogen. This is because salmon serves as a nitrogen fertilizer that the trees get. This process starts with salmon feeding in the oceans on organisms having nitrogen isotope. When a salmon is dead, other animals such as wolves, ravens, and bears feast on its body and spread its nutrients throughout the forest. This shows how even a species as small as salmon contributes to the web of interconnectedness.

The ecosystem is the repository of diverse living species in diverse ecosystems. As humans we have learned which plants are edible and their medicinal properties; the skins of animals transformed into our clothes. It is with no doubt that we know nothing about most species which makes it eminent for protection. Several years ago, when animals were domesticated, rose next level of evolution of culture. We need genetic diversity that exist in wild population, which can serve as defence against altering conditions. A French philosopher Catherine Larrere points out that biological diversity involves evolution and all species have a role in that.

Scientists have confirmed that organisms are genetically related. Our evolutionary history has indicated that humans share genes with mice, apes and are even identical with roundworms, yeast and bacteria. There are a lot of variants in the genes of different species, which scientists believe are related to environmental changes. However not all species can adapt to the soaring temperatures due to globalization. The Siberian tiger or crane are examples of species whose numbers have declined due to the impact of global weather patterns.

Alterations in biodiversity can induce vector-borne infectious diseases. Any change in the ecosystem can cause alteration in disease pathogens and structural diversity. Biodiversity is a vital source of bioactive compounds for modern medicine. Loss of

biodiversity can cause loss of raw materials used for medicinal purposes. The tropical rainforests have been a great source of biodiversity. It is estimated that only five percent of tropical plant species have been tapped for their pharmaceutical potential. This then has a potential for discovery as well as a potential for species extinction due to biodiversity. Diversity involves adaptability, resilience and regeneration. According to Vandana Shiva, diversity is the key to sustaining ecological stability. It occurs when the various life forms and habitats of the Earth cooperate to create diverse ecosystems. The emission of greenhouse gases has led to temperature level increase which has caused severe changes in the weather patterns, rising sea levels and rainfalls. Climate change is evident in ocean acidification, increase in vector-borne diseases such as malaria, air pollution and ecological distortion leading to crop failure and species extinction. It is estimated that by the end of 2050, there will be a ten percent decrease in the crop yields with higher levels of global warming.

Studies indicate that alterations in land use and climate variability can affect food production and economy of a country. The unsaid effects of climate change include nutrition, displacement and migration. It is essential to address global warming by redressing policies that lead to climate injustice in the society. It is essential to look at what is good as a whole rather than national boundaries. It is obligatory to provide solutions for climate change community inclusive of aboriginals, global poor as well as biodiversity and ecosystems.

The resources that are most vulnerable to climate change are water and fuel, which make women vulnerable as they are employed as labouring force to generate food either in farming or agricultural practices. In many countries, women are employed in agriculture for their sustainability. With change in climate, food production becomes unpredictable which affects their livelihood. Children are the most vulnerable group to climate change, which is one of the primary reasons behind deaths among children due to air-borne infections. The impact of climate change is also visible in the life of indigenous people who are dependent on natural resources such as rivers, mountains, and forests for their sustenance and which are threatened by the climate change. Often the areas they inhabit are acquired for development of various projects as they have no legal ownership of the lands.

Climate change is a moral concern as it affects the very survival of humanity. In his seminal work Shue associates global climate change in lieu of three reasons. First, climate negotiations are identified with structural injustice. It is the developed countries that have had an anthropogenic altercation with climate system yet the negative impacts are faced by the poorer countries. Third, evasion of justice punishes the important interests of the poor countries, not the banal interests of the rich countries. Limitations identified with climate change are they do not provide enough data to predict due to uncertainty. Climate models cannot predict extreme weather events such as floods or droughts, which have severe consequences for farmers, transport and industry. Third, they oversimplify the socio-economic complexities such as the demand



for agricultural products that move with environmental factors.

The non-human world is as susceptible to diseases and injuries as the human world. The sad truth is that they are not protected when these occur. Causes such as habitat loss, habitat degradation and overuse of resources are attributed to species extinction. Many a time humankind's suitability of development has led to underdevelopment of nature. Dam projects promoting urbanism is ascribed to wildfires that consume wildlife habitats. Furthermore, outbreak of diseases can be attributed to industrial agriculture and unethical human practices. Studies have indicated that certain boundaries should not be exceeded in the interest of coexistence of different species. Yet, over the years, these boundaries have been exceeded as seen in the study Loss of Biodiversity, Climate Change and Nitrogen Cycle.

Different democracies show that humankind consumes many non-renewable resources and generates biosphere pollution. In this case, neither in the present nor in the future, humankind will be able to sustain life. Democracy is needed for trade, economic growth, globalization and resource extraction. However, democracy should not be characterized by lack of leadership or lack of infrastructure in the areas of education, public health, potable water, food safety as well as lack of transparency and law and justice. Developing democracy should be prioritized to address the issue of climate change and population growth.

We need to move towards a democracy with a common humanity and planetary future. Private enterprises, globalization and democratic nations require the phantasm of democracies to deteriorate our resources and pollute our singular biosphere. Over the years, various laws have been passed that may or may not render protection to human and environmental health. Truth be told, these laws may not even be enforced or not exist while human population continues to increase by seventy-five million annually, creating more pollution in the form of hydrocarbons and even more harmful discharges into the biosphere. Most of us consider this necessary in order to afford a lavish lifestyle, for national security, and for trade and exploitation. Democracy and capital enterprises are interlinked. The progress of economic growth is measured through global consumption.

## **2. Conclusion**

This research articulates thoughts of various ecologists and environmentalists arguing for the coexistence of humans and nature rather than existence of humans over nature. Questions such as what kind of world have we built for ourselves? What kind of future do we intend to pass on to the future generations? Will the world be inhabitable or uninhabitable? underlaid the thought process behind the study. The embodiment of nature is an unvalued entity and it is time that we changed our perspective towards sustainability and away from depredation. The perception that humans are part of the nature and not above the nature was multiply echoed in the article.

More importantly, the web of nature, sacred and humans coexist was the foregrounded thought in the study. We live in a world dominated by humans, and the speed and scale of change in the biosphere, from climate change to land use change, is astounding. The radical changes in socio-economic systems have amplified climatic and global warming, threatening the life systems on which we depend as well as the characteristics of our particular nature. The rapid and new challenges of the Anthropocene period were also perceived and expressed as mediated by the biophysical, social and economic aspects of the location itself. The perspective of sense of place can be viewed as major influence in adapting to ecosystem changes and variations. It also plays a key role in motivating people to act on behalf of the environment.

There is always contradiction in the relationship of humans with nature, development with environmental protection and between present and future generations. The Anthropocene sentiments of humans have been outspoken proponents of environmental preservation alongside increasing economic interest, environmental harm and pollution. The perspective to alter nature in order to fit mankind's sustenance has had repercussions. These repercussions have become a major environmental threat. Balancing human actions or threat in this case has surpassed environmental affordability. The problem indeed lies in the lifestyle we choose and in our attitude towards the planet. It is imperative that we change our choices of life and lifestyle. A harmonious life, lifestyle and attitude should be inculcated into humans. Environmental aesthetic thought invokes that all living beings (human and non-human world) have equality on earth. It promotes a human conscious about passing on a sustainable future. Such environmental aesthetics is required to build harmonious relationship between nature and humankind. Through a change in the perspective of our aesthetic, we can move towards a more balanced and harmonious development.

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