

Freirian Environmental Education in the Promotion of Sustainable Consumption

Ramon Torres de Brito Silva¹ Maria José Nascimento Soares¹ José Johnatta Feitosa Teixeira¹

'Universidade Federal de Sergipe (UFS), São Cristóvão/SE – Brazil

ABSTRACT – Freirian Environmental Education in the Promotion of Sustainable Consumption. Our ecological reality is marked by socio-environmental collapse, stemming from capitalist consumerism. It is reinforced by way of an anthropocentric banking education, advocating for the separation between human beings and nature. In this context, through the theoretical-conceptual method, we analyze how environmental education for sustainable consumption enables a human stance that combats the contemporary socio-environmental collapse. Thus, the formative characteristics of sustainable consumption are established, which, through the epistemology engendered by Freirean environmental education, promote the adoption of the ecological systemic paradigm in today's reality. Consequently, it results in ethical planetary ecosystem equilibrium.

Keywords: Collapse. Consumerism. Ecosystem. Ethics. Paradigm.

RESUMO – A Educação Ambiental Freiriana no Fomento do Consumo Sustentável. A nossa realidade ecológica é marcada pelo colapso socioambiental, oriundo do consumismo capitalista. Ele é reforçado por conduto de uma educação bancária antropocêntrica, defensora da cisão entre o ser humano e a natureza. Nesse contexto, pelo método teórico-conceitual, analisa-se como a educação ambiental para um consumo sustentável possibilita uma postura humana que combata o estado de colapso socioambiental contemporâneo. Nisso, estabelece-se as características formadoras do consumo sustentável, as quais, através da epistemologia engendrada pela educação ambiental freiriana, promovem a adoção do paradigma sistêmico ecológico na realidade hodierna. Assim, resulta-se no equilíbrio ecossistêmico planetário ético.

Palavras-chave: Colapso. Consumismo. Ecossistema. Ética. Paradigma.

Introduction

Environmental education nowadays embodies a condition without which the human being could be extinct from the eco-spheric reality. However alarmist, ecoterrorist, cerebral speculation, exaggerated, or utopian this premise may be perceived, we are sternly immersed in an unprecedented socio-environmental collapse in planetary history. This is primarily triggered by a single animal species: Homo sapiens.

Indeed, the process that constitutes environmental education enables the stimulation of inherent human potentialities and prescribes values that, if realized, lead individuals to be critical of their sociocultural reality, thus promoting and refining environmentally compatible attitudes conducive to the biophysical equilibrium of our planet. Therefore, within the context of the socio-environmental collapse in which we are immersed, the occurrence of irreversible global warming, leading to floods, droughts, and wildfires causing numerous human and non-human deaths, as well as the phenomenon of climate refugees, the decline in biodiversity, the reduction of ecosystem services, economic inequalities (between northern and southern countries), and socioeconomic disparities (internally among their peoples) is easily observable.

Certainly, in the aforementioned ethos, it is difficult to ignore that these deleterious occurrences to the planet are primarily propelled by consumerism. This is because our entire linear capitalist production system aims at consumption and, consequently, profit – enabling further consumption of new material (objects) and immaterial (experiences) products.

Therefore, environmental education, coupled with the system-ic/ecological paradigm, must play a transformative praxis in the unhealthy context in which our environment finds itself. It is in this line of understanding that we aim, fundamentally, to analyze how the promotion of environmental education for sustainable consumption has the potential to enable a human stance that combats, and thus minimizes, the state of socio-environmental collapse in which we are immersed.

In this endeavor, we also aim, collaterally, to strengthen the research by establishing the formative characteristics of the scope of environmentally transformative sustainable consumption. Similarly, we aim to elucidate Freirean environmental education as a suitable facilitator of the dialogical methodology for the realization of sustainable consumption. By establishing the goal of sustainable consumption and its dissemination and reinforcement through Freirean environmental education, a paradigm shift in our sociocultural reality will be enabled. Thus, the anthropocentric zeal is rejected, and the systemic/ecological paradigmatic perspective is adopted in favor of a healthy planetary ecosystem balance.

Now, by problematizing the reasons that determine the theoretical position, throughout the following lines, we will respond to the present question: how does consumerism constitute the main cause of the socio-environmental collapse that we are experiencing today?

In this framework, the theoretical-conceptual method, consisting of a thorough examination of the state of scientific, philosophical, popular, artistic, and religious knowledge of the analyzed theme, will be utilized, contributing to its maintenance or refinement. Therefore, enriching scientific or non-scientific studies for all those interested in the process of environmental education concerning the combat against the consumerism that vilifies our planetary ecosystem.

Environmental Education for Sustainable Consumption

As a triple process, education constitutes "[...] humanization, socialization-acculturation, singularization-subjectivation" (Charlot, 2020, p. 291). Therefore, it is the anthropological condition that allows genetically hominized beings to enter the human world, which has its reality related, but not determined, by the existing socio-cultural context at a given time. The individuality of the human being living in the world will be more or less emphasized, as it undergoes the flows and influences exerted in a particular historical socio-cultural reality (Dickmann; Carneiro, 2021; Charlot, 2020; Harari, 2020).

Now, our socio-cultural reality, at the current historical moment, is distinctly marked by socio-environmental collapse stemming from consumerism projected and reinforced by humans for a long time. Indeed, consumerism has its most prominent origins in the reign of Elizabeth I, precisely in the last 25 years of the 16th century and the beginning of the 17th century. During this time, the queen, to increase her political influence and diminish the power of English aristocrats, influenced consumerism based on individuality, competition, and consumption of novelties (Silva; Silva; Soares, 2022; Mccracken, 2010).

In this scenario, English nobles were educated not to consume durable, long-lasting things, which therefore had a patina aspect. Instead, they were to consume the newest products and experience the latest fashion. By doing so, the queen would be pleased and could grant her royal favors, especially financial support requested by wealthy Englishmen (Silva; Silva; Soares, 2022; Garcia, 2016; Mccracken, 2010).

Indeed, the individuality, competition, and consumption of novelty engendered in the Elizabethan reign were reinforced in all phases that make up contemporary hyper-consumption – detrimental to environmental balance (Silva; Silva; Soares, 2022; Fontenelle, 2017; Garcia, 2016; Lipovetsky, 2007). In the first phase of hyper-consumption, which began in 1880 and ended in 1945, the first mass consumption occurred, where supply determined demand. This was due to the scientific organization of labor and the evolution of techniques used in industry. Additionally, the creation of brands, packag-

ing of products in a logistical perspective, as well as the significant emergence and use of global capitalist advertising, and consumer credit contributed to this (Fontenelle, 2017; Lipovetsky, 2007).

In this environment, it is noticeable that, in the current phase, there is – at least institutionally – no historical mention of environmental education, much less sustainable consumption. It is for this reason that – in the golden age of capitalism, a term that describes the second phase of hyper-consumption, understood from 1950 to 1979 – three important scientific warnings for environmental movements are produced, denouncing the socio-environmental collapse caused by the capitalist way of life, which considers nature as an infinite repository of inputs to be consumed. Thus, in 1962, Rachel Carson published the significant content of Silent Spring. In 1972, Limits to Growth, also known as the Meadows Report, was published, and as a result, the Blueprint for Survival document (Dickmann; Carneiro, 2021; Fontenelle, 2017; Lipovtsky, 2007; Portilho, 2005).

In the face of this scenario, it is already evident that the incorrect anthropocentric paradigm, which provides the basis for contemporary capitalism and banking education, therefore, by disregarding the biophysical limits of the planet, indelible realities of ecological mega-disasters have been created. Illustratively, one can observe Flixborough, in 1974, in the United Kingdom, where a gas explosion at a chemical factory claimed the lives of 28 people and caused environmental damage within a 3 km radius; Seveso, in 1976, in Italy, the scene of dioxin contamination resulting from the explosion of a chemical reactor, which led to the evacuation of its entire population and the performance of clinical abortions; Three Mile Island, in 1979, in the United States of America, the site of the first major reported nuclear disaster, releasing radioactivity that contaminated the surroundings of the plant (Capra, 2022; Dickmann; Carneiro, 2021; Azevedo, 2014).

Despite such strong signals of the negative effects brought about by the inconsistent reproduction of environmentally unsustainable consumption, guided by education detached from the recognition of ecosystem limits, in the third phase of hyper-consumption, which began in 1980 and continues to the present day, the importance of and advocacy for the dissemination of environmental education for sustainable consumption are most evident (Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021; Santos, 2021; Garcia, 2016; Lipovetsky, 2007).

This is due to the continuous occurrence of ecological megadisasters, as exemplified by Bhopal, India, in 1984, the site of a dense toxic gas cloud that led to the death of over 2,000 humans, not to mention non-humans, as well as the serious injury of 60,000 people (Azevedo, 2014); and, more recently, the occurrence of Covid-19, a global pandemic that systematically caused the death of numerous human beings. This fact was caused by the unnecessary consumption of a non-human being by a human being (Santos, 2021; Morin, 2021). In this understanding, at the height of the universal pandemic, Ailton Krenak (2020, p. 39) emphasized: "[...] today we are all facing the imminence of the Earth not being able to withstand our demand. We are witnessing a tragedy of people dying in different parts of the planet, to the point where in Italy, bodies are being transported for incineration in trucks".

Meanwhile, here and now, we are facing another ecological mega-disaster stemming from gold mining. In this endeavor, miners contaminate Yanomami territories in Roraima with mercury, polluting the water, an essential abiotic element for life on Earth. As a result, the death of various non-human beings and the genocide of numerous indigenous people are triggered (Tupy; Santos; Silva; Carvalho; Morato, 2023), as all elements that compose the ecosystem are in full connection (Capra, 2022).

In the face of such a zeitgeist of socio-environmental collapse, it is necessary for environmental education to be a formative process that enables the existence of responsible consumers, forming ecologically oriented subjectivities that can critically, through concerted actions, converge towards a reality of mitigating contemporary biospheric imbalance (Silva; Silva; Soares, 2022; Carvalho; Steil, 2009). In this line of thought, sustainable consumption, stemming from environmental education coupled with the systemic/ecological paradigm, aims at weaving realities permeated with justice and possessing a condition of ecologically viable perpetuity (Silva; Silva; Soares, 2022; Pinheiro; Do Amaral; Lisboa; Cargnin, 2009).

Thus, as analyzed in the above lines, consumerism is nothing more than a sociocultural creation entrenched in the core of our time. Because it is a creation, its modification can occur through environmental education. This does not mean it is an easy task. However, it is a possible process because "[...] through the reflective rumination of experiences, a homeopathic change begins from what were already defined certainties and truths to something constantly changing" (Fischer, 2009, p. 29).

Indeed, Freirean environmental education, as will be shown later, has the integrity to promote sustainable consumption. Furthermore, the historical moment in which we find ourselves is opportune for a paradigm shift. Since we are immersed in a reality of severe socio-environmental collapse, changes must be made in the relationship between human beings and the environment of which they are a part. Once this is achieved, there will be a condition for the continued existence of Homo sapiens in the Earth's biosphere (Moore, 2022; Krenak, 2022; Morin, 2021; Capra; Mattei, 2018).

The Shaping Characteristics of Sustainable Consumption

Having analyzed how the promotion of environmental education can generate sustainable consumption, which enables a praxis that combats, and therefore diminishes, the reality of socioenvironmental collapse we are experiencing, we proceed to establish

the formative characteristics of the endeavor of sustainable consumption that transforms the currently unbalanced ecological reality.

Certainly, for the emergence and implementation of sustainable consumption, it is essential to emphasize that humans must be aware that all their actions on Earth impact the other beings that inhabit it (Capra, 2022). Additionally, consumers must be sensitized by environmental education about the biophysical limits of the planet. In these terms, all beings inhabiting the biosphere are interdependent and interconnected. Plants, humans, non-humans, as well as microorganisms, interact with each other, thus providing the context for the viability of planetary life (Capra; Mattei, 2018).

As already evidenced, the current eco-spheric reality is already wounded by consumerist behavior carried out by a massive portion of humans. Catalyzing this reasoning, education that does not recognize the limits that our planet holds – in other words, that views the environment as a mere repository of resources to be used solely for human needs – will only contribute to the extinction of Homo sapiens on our planet (Dickmann; Carneiro, 2021). In this cognitive concatenation,

[...] we are worse than covid-19. This package called humanity is being absolutely displaced from this living organism that is the Earth, living in a civilizational abstraction that suppresses diversity, denies the plurality of forms of life, existence, and habits (Krenak, 2020, p. 40-41).

Indeed, sustainable consumption, stemming from environmental education, relates to the promotion of the plurality of lives and experiences (Silva; Silva; Soares, 2022; Fischer, 2009), as well as between desire and norm present in a particular socio-cultural reality. Moreover, desire and norm are pivotal issues for any type of education, whether in traditional pedagogy, which sees the educational process as combating the degenerate nature of the child, or in new pedagogy, which aims to stimulate the ontological potential of children (Charlot, 2020).

Now, sustainable consumption should be enacted as a sociocultural norm that curbs consumerist desires, primarily stimulated by contemporary capitalist socio-cultural reality. It cannot be said that consumerism is inherent to human beings (Silva; Silva; Soares, 2022), as it is a sociocultural creation developed and transmitted by education detached from the systemic/ecological paradigm.

In our country, sustainable consumption through environmental education, besides being present in part of the current educational socio-cultural ethos, constitutes a legal norm of constitutional lineage. Therefore, it must be respected throughout the Brazilian legal system, exerting influence on various socio-cultural relationships (Barroso, 2022; Moraes, 2022; Sarlet; Fenstersseifer, 2021; Ribeiro, 2018; Garcia, 2016).

As a consequence, the formative characteristics of sustainable consumption in our republic derive from the joint interpretation of constitutional provisions represented by articles of the Federal Con-

stitution of 1988: 5th, paragraph XXXII; 170, paragraphs III, V, and VI; and 225, \$1st, paragraph VI (Sarlet; Fenstersseifer, 2021; Ribeiro, 2018; Garcia, 2016).

Indeed, by its topography, Article 5th, paragraph XXXII, constitutes a fundamental right. As such, this right cannot be curtailed in both public and private socio-cultural relationships (Barroso, 2022; Garcia, 2016). The analyzed provision states: "[...] the State shall promote, in the manner of the law, the defense of the consumer" (Brazil, 1988). In an isolated reading of this article, explicit characteristics relevant to establishing sustainable consumption could not be extracted. Indeed, the provision in question, in isolation, only demonstrates that the defense of the consumer is of such paramount importance that it has been elevated to the category of fundamental right, thus issuing a command that must be obeyed by all who are bound to the Brazilian state (Barroso, 2022; Moraes, 2022; Sarlet; Fenstersseifer, 2021).

However, sustainable consumption, engendered in our Federal Constitution, is the result of the comparison of the aforementioned provision with the content established in Article 170, paragraphs III, V, and VI, of our highest norm. Thus, the economic order in Brazil is not free to operate in an unregulated fashion according to the dictates of the capitalist market (Silva; Silva; Soares, 2022; Garcia, 2016). Indeed, in our country, the economic system must respect consumer defense, as well as environmental protection, thus ensuring national development and minimizing regional inequalities in our federation (Brasil, 1988).

Now, in our republic, consumer protection is a fundamental right, as understood by the content of Article 5th, paragraph XXXII, a fact ratified by paragraph V of Article 170. Added to this, the Brazilian capitalist market is limited in its pursuit of full freedom, as private property therein is bound to a social function, not to harm the rights of other human and non-human beings, as paragraph VI of the aforementioned article clearly mandates environmental protection as a binding principle that must be respected by capitalists (Moraes, 2022; Ribeiro, 2018; Garcia, 2016).

In this architecture, given that the consumer must be defended in our republic, and likewise that it does not allow unrestricted capitalism, thus not accepting consumption detrimental to the environment, Article 225, §1st, paragraph VI, directly expresses the promotion of the scope of sustainable consumption through environmental education in all stages of the formal and informal educational process (Brasil, 1988).

Therefore, based on the reasoning presented, sustainable consumption has as characteristics of its endeavor: the protection of the consumer as a fundamental right; the non-acceptance of capitalism that promotes consumption that harms the environment; the protection of the environment for present and future generations of human and non-human beings. Moreover, this intellectual line must be disseminated and concretized through the promotion of environmental

education that forms socio-environmentally sensitized educators and learners, thus transforming the context of socio-environmental collapse we are experiencing.

Freirean Environmental Education in Achieving Sustainable Consumption

Being critical, creative, and therefore liberating, Freirean environmental education aims to form educators and learners who are critical, creative, and liberated. Thus, they are ready to act by modifying, through praxis, the socio-cultural reality of the environment in which they are historically embedded (Dickmann; Carneiro, 2021; Martins; Araujo, 2021). The planet Earth is in severe socio-environmental collapse, as analyzed above, due to an educational epistemology based on the anthropocentric paradigm (Iared; Hofstatter; di Tullio; Oliveira, 2022). Therefore, it is imperative to transform this reality, thereby aiming for a state of mitigation of ecosystem imbalance.

Within the anthropocentric paradigm, there is a defense of the division between human beings and nature. Consequently, nature is reduced solely to a category of inputs to be used by humans to meet their needs, whether real (food, shelter, rest, among others) or artificial (fashion, novelty, luxury, among others) (Capra, 2022; Silva; Silva; Soares, 2022; Leonard, 2011). Indeed, this erroneous thinking has been observed since ancient times, as it continues today.

In general, in Greek thought, nature could be used at the pleasure of human beings, since they would not possess the power to harm it, no matter how much they use it. In this line of reasoning, human actions would never have the ability to disrupt the natural balance (Galimberti, 2006).

Now, if humans could not degrade the environment from the Greek perspective, they should not be held responsible for their actions directed against nature. Therefore, the separation between humans and nature has its initial formation in Greek thought. Indeed, the complete division between human beings and nature is achieved by the Judeo-Christian intellectual line. In it, the human person is understood as the master of the environment, able to use fauna and flora, as well as abiotic elements, at their discretion (Gudynas, 2019; Ratto; Henning; Andreola, 2017; Galimberti, 2006).

Based on this, the pioneers of traditional science strengthened the separation between human beings and nature, promoting the internalization of this division in educational practices. From this perspective, the environment is nothing more than a machine. Therefore, nature should not be analyzed by qualitative methods but only by quantifiable methods - as advocated by Galileo Galilei. Consequently, Francis Bacon vehemently promoted human domination over nature (Gudynas, 2019; Capra; Mattei, 2018; Galimberti, 2006). As a result, other scientists and theorists reaffirmed the anthropocentric paradigm, as evidenced by the

[...] conception of the material world as a machine separate from the mind, promoted by René Descartes; the Newtonian concept of 'laws of nature', objective and immutable; and a rationalist and atomistic view of society, promoted by John Locke (Capra; Mattei, 2018, p. 28).

Due to this reasoning, it is inferred that the environment was not present as worthy of ethical respect in Greek, Judeo-Christian, and traditional scientific thought. In this prism, there is an absence of ethical accountability for human treatment of the environment. However, countering this outdated intellect, Freirean environmental education proposes the goal of the ethics of universal responsibility towards nature, liberating humans and non-humans from the anthropocentric bias (Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021; Ratto; Henning; Andreola, 2017; Galimbert, 2006).

Now, in Freirean environmental education, the human being incomplete and inconclusive, and therefore educable - through the educational process, becomes more human. In this way of thinking, being more human means remaining, as much as possible, attached to the ethics of universal responsibility. This is a consequence of the human endeavor to make the world more humane, thereby ensuring greater security for humanity's existence. However, without vilifying nature, from which human beings are not separate (Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021; Freire, 2013).

Meanwhile, human praxis, which consists of action-reflection-action, has the capacity to transform the ecological reality of the world since it too is incomplete and inconclusive, and therefore subject to modification. In these terms, Paulo Freire (1996, n. p.) taught: "[...] incomplete are also the jaboticaba trees that fill my backyard with singing birds during harvest season; incomplete are these birds as incomplete is Eico, my German shepherd, who 'greets' me happily in the early mornings".

In this understanding, from the perspective of Freirean environmental education, consistent praxis in the transformative action of man aims to humanize the world without disrespecting the biophysical limits of the planet, unlike banking education based on the anthropocentric paradigm (Dickmann; Carneiro, 2021; Freire, 2013; Freire, 1996).

Indeed, since every human action affects nature, sustainable consumption is the correct course to be performed and taught. Within the Freirean epistemology, actions that consume the environment cannot be perpetrated since these actions, as worked, are detrimental to nature. Therefore, within Freirean environmental education, the systemic/ecological paradigm finds shelter, as limit situations, understood as problematic cases that need to be overcome – such as contemporary consumerism – are treated with transversality and interdisciplinarity (Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021).

In this perspective, by proposing a limit act - understood as an action that overcomes a limit situation, enabling the genesis of a via-

ble novelty, consistent with the situation one aims to achieve by overcoming the limit situation through the limit act -, the educator and learners move through various disciplines and pedagogical techniques, without hierarchizing them. Therefore, respecting the idiosyncrasies of subjectivities situated in the diverse contexts of historical socio-cultural reality, thus influencing ecological reality (Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021; Martins; Araujo, 2021; Carvalho; Steil, 2009).

In this line of understanding, consumerism is the result of the historical refinement of individualism, competition, and consumption of novelties engendered from the Elizabethan reign. Therefore, these issues must be transformed into problem situations. Therefore, by bringing educators cases of environmental disasters stemming from linear capitalist production activity and demonstrating the connections of these occurrences with consumerism, learners can propose limit acts as facilitators of a novelty-viable in which consumption respects the biophysical limits of planet Earth (Capra, 2022; Silva; Silva; Soares, 2022; Dickmann; Carneiro, 2021).

Metaphorically, the important study of educational practices, concerning the context of solid waste in Brazil stemming from consumerism, has long been a fruitful theme for the field of environmental education (Almeida, 2021; Silva; Silva; Costa, 2018; Pinheiro; do Amaral; Lisboa; Cargnin, 2014; Pinheiro; Lisboa; do Amaral; Cargnin, 2009). This is because solid waste is the result of contemporary consumerism. Thus, in the capitalist linear production model, inputs are extracted from nature to transform them into goods, which must be consumed as quickly as possible since the new goods produced need to be consumed equally to increase the capitalists' profit accumulation. Therefore, it causes greater consumption capacity for them (Silva; Silva; Soares, 2022; Silva; Silva; Costa, 2018).

This production and consumption system cannot stop, in truth, within the anthropocentric paradigm. It must continue to operate to achieve further development - which, within the capitalist context of our predominant socio-cultural reality, is nothing more than economic development (Moore, 2022; Garcia, 2016; Leonard, 2011). This undoubtedly occurs despite constitutional norms prohibiting consumerism and an economic model that does not respect nature.

In this context, there are deleterious effects on the biospheric balance in the extraction of inputs, as well as in the production of goods through the use of fossil fuel-consuming energies; by transporting goods fueled with polluting fuels; by consuming goods so that capitalists profit more and discard, mostly inappropriately, solid waste into nature. In this, a banking education does not take into account the problematization of these factors. Therefore, continuing to educate human beings apart from environmental education, certainly Homo sapiens will be extinct from planet Earth, which is in a situation of socio-environmental collapse (Moore, 2022; Santos; Costa, 2022; Silva; Silva; Soares, 2022; Krenak, 2020; Weetman, 2019).

Therefore, an education that understands human belonging in nature and recognizes that human actions have effects on the environment constitutes a condition without which human beings cannot exist on Earth. Therefore, it is necessary to problematize, through the dialogical methodology of the word, without verbalism, that consumerism does not reconcile with the biophysical limits of our planet (Capra, 2022; Dickmann; Carneiro, 2021; Krenak, 2020; Luca; Andrade; Sorrentino, 2012).

By problematizing this reality through the desire of limit situations, we can obtain numerous limit acts that lead us to a novelty-viable of an environmentally balanced planet through and with sustainable consumption. In this endeavor, Freirean environmental education, as explained here, has the power to succeed in transforming our ecological reality (Soares; Silva; Silva, 2022; Dickmann; Carneiro, 2021; Weetman, 2019; Ribeiro, 2018; Garcia, 2016).

Final Considerations

The anthropocentric paradigm, which advocates for the separation between human beings and nature, has led us to the linear production model created by capitalism. This model promotes and stimulates consumerism, triggering the contemporary socioenvironmental collapse. This scope is reinforced and disseminated by banking education, which perpetuates the capitalist reality that undermines the planetary ecosystem balance.

Therefore, it is imperative, through the Freirean environmental educational process, to operationalize a paradigm shift. Thus, by overcoming the limit situation represented by degrading socioenvironmental consumerism, a paradigm shift can be achieved. Therefore, through the limit act, constituted in sustainable consumption, a viable novelty will be made possible, embodied in the adoption of the systemic/ecological paradigm, enabling an ecologically balanced biospheric reality.

Certainly, in our republic, there are constitutional norms that prescribe this goal. Sustainable consumption is objective number 12 for achieving planetary sustainable development, advocated by the United Nations. However, the existence of binding or persuasive norms alone is not enough to bring about an effective paradigmatic transformation of the planetary socio-cultural context influencing the human-nature relationship.

Indeed, it is essential to educate environmentally, explaining that every human act reverberates throughout life on our planet. Therefore, we must act with ethical responsibility. Thus, in Freirean environmental epistemology, we become more human as we do not stray from respecting nature, of which we are parts (and not masters).

Therefore, even though a paradigm shift may not occur swiftly, the historical context of socio-environmental collapse that we are witnessing leads us to rethink our relationship with nature, thus vindicating and recognizing the inexorable importance of Freirean environmental education in our real and potential lives and experiences.

Thus, through Freirean environmental education, we promote sustainable consumption as a facilitator of the continued existence of dignified life for Homo sapiens on Earth. In these terms, acting within an ethical responsibility is essential for human and non-human life within the universal ecosystem balance.

Received February 26, 2023 Accepted August 28, 2023

References

ALMEIDA, Camila Parente. A política nacional de resíduos sólidos no antropoceno: o papel dos tribunais de contas na amazônia legal. Rio de Janeiro: Lumen Juris, 2021.

AZEVEDO, Plauto Faraco de. **Ecocivilização**: ambiente e direito no limiar da vida. São Paulo: Editora Revista dos Tribunais, 2014.

BARROSO, Luís Roberto. **Curso de direito constitucional contemporâneo**: os conceitos fundamentais e a construção do novo modelo. São Paulo: SaraivaJur, 2022.

BRASIL. Constituição da República Federativa do Brasil de 1988. **Diário Oficial da União**, Brasília, out. 1988. Seção 1. P. 1. Disponível em: https://www.planalto.gov.br/ccivil_03/constituicao/constituicao.htm. Acesso em: 20 fev. 2023.

CAPRA, Fritjof. **Padrões de conexão**: uma introdução concisa das ideias essenciais de um dos mais importantes pensadores sistêmicos do mundo contemporâneo. São Paulo: Cultrix, 2022.

CAPRA, Fritjof; MATTEI, Ugo. **A revolução ecojurídica**: o direito sistêmico em sintonia com a natureza e a comunidade. São Paulo: Cultrix, 2018.

CARVALHO, Isabel Cristina Moura; STEIL, Carlos Alberto. O habitus ecológico e a educação da percepção: fundamentos antropológicos para a educação ambiental. **Educação & Realidade**, Porto Alegre, UFRGS, v. 34, n. 3, 2009. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/9086. Acesso em: 20 fev. 2023.

CHARLOT, Bernard. Educação ou barbárie? Uma escolha para a sociedade contemporânea. São Paulo: Cortez, 2020.

DICKMANN, Ivo; CARNEIRO, Sônia Maria Marchiorato. Educação ambiental freiriana. Santa Catarina: Livrologia, 2021.

FISCHER, Nilton Bueno. Perplexidades, desafios e propostas na educação ambiental a partir da trajetória de um pesquisador. **Educação & Realidade**, Porto Alegre, UFRGS, v. 34, n. 3, 2009. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/9080. Acesso em: 20 fev. 2023.

FONTENELLE, Isleide Arruda. Cultura do consumo: fundamentos e formas contemporâneas. Rio de Janeiro: Editora FGV, 2017.

FREIRE, Paulo. **Pedagogia da autonomia**: saberes necessários à prática educativa. São Paulo: Paz e Terra, 1996.

FREIRE, Paulo. Pedagogia do oprimido. Rio de Janeiro: Paz e Terra, 2013.

GALIMBERTI, Umberto. **Psique e techne**: o homem na idade da técnica. São Paulo: Paulus, 2006.

GARCIA, Leonardo. Consumo sustentável: a proteção do meio ambiente no código de defesa do consumidor. Salvador: JusPodivm, 2016.

GUDYNAS, Eduardo. **Direitos da natureza**: ética biocêntrica e políticas ambientais. São Paulo: Elefante, 2019.

HARARI, Yuval. **Sapiens**: uma breve história da humanidade. São Paulo: Companhia das letras, 2020.

IARED, Valéria Ghisloti; HOFSTATTER, Lakshmi Juliane Vallim; DI TULLIO, Ariane; OLIVEIRA, Haydée Torres de. Educação Ambiental Pós-Crítica como Possibilidade para Práticas Educativas Mais Sensíveis. Educação & Realidade, Porto Alegre, UFRGS, v. 46, n. 3, 2022. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/104609. Acesso em: 20 fev. 2023.

KRENAK, Ailton. A vida não é útil. São Paulo: Companhia das Letras, 2020.

KRENAK, Ailton. Futuro ancestral. São Paulo: Companhia das Letras, 2022.

LEONARD, Annie. A história das coisas: da natureza ao lixo, o que acontece com tudo que consumimos. Rio de Janeiro: Zahar, 2011.

LIPOVETSKY, Gilles. A felicidade paradoxal: ensaio sobre a sociedade do hiperconsumo. São Paulo: Companhia das Letras, 2007.

LUCA, Andréa Quirino de; DE ANDRADE, Daniel Fonseca de; SORRENTINO, Marcos. O Diálogo como Objeto de Pesquisa na Educação Ambiental. **Educação & Realidade**, Porto Alegre, UFRGS, v. 37, n. 2, 2012. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/17013. Acesso em: 20 fev. 2023.

MARTINS, Victor de Oliveira; ARAUJO, Alana Ramos. Crise Educacional e Ambiental em Paulo Freire e Enrique Leff: por uma pedagogia ambiental crítica. **Educação & Realidade**, Porto Alegre, UFRGS, v. 46, n. 2, 2021. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/105854. Acesso em: 20 fev. 2023.

MCCRACKEN, Grant. **Cultura e consumo**: novas abordagens ao caráter simbólico e das atividades de consumo. Rio de Janeiro: Mauad X, 2010.

MOORE, Jason (Org.). **Antropoceno ou capitaloceno?** Natureza, história e a crise do capitalismo. Tradução: Antônio Xerxenesky e Fernando Silva e Silva. São Paulo: Elefante, 2022.

MORAES, Alexandre de. Direito constitucional. Barueri: Atlas, 2022.

MORIN, Edgar. É hora de mudarmos de via: as lições do coronavírus. Rio de Janeiro: Bertrand Brasil, 2021.

PINHEIRO, Leandro Rogério; DO AMARAL, Márcio de Freitas; LISBOA, Cassiano Pamplona; CARGNIN, Tiago de Mello. Sujeitos, Políticas e Educação Ambiental na Gestão de Resíduos Sólidos. **Educação & Realidade**, Porto Alegre, UFRGS, v. 39, n. 2, 2014. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/24909. Acesso em: 20 fev. 2023.

PINHEIRO, Leandro Rogério; LISBOA, Cassiano Pamplona; DO AMARAL, Marcio Freitas; CARGNIN, Tiago Daniel de Mello. Trajetórias e tomadas de posição no campo ambiental: práticas sociais para reciclagem. **Educação & Realidade**, Porto Alegre, UFRGS, v. 34, n. 3, 2009. Disponível em:

https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/9088. Acesso em: 20 fev. 2023.

PORTILHO, Fátima. Sustentabilidade ambiental, consumo e cidadania. São Paulo: Cortez, 2005.

RATTO, Cleber Gibbon; HENNING, Paula Corrêa; ANDREOLA, Balduíno Antonio. Educação Ambiental e suas Urgências: a constituição de uma ética planetária. **Educação & Realidade**, Porto Alegre, UFRGS, v. 42, n. 3, 2017. Disponível em: https://seer.ufrgs.br/index.php/educacaoerealidade/article/view/59438. Acesso em: 20 fev. 2023.

RIBEIRO, Alfredo Rangel. **Direito do consumo sustentável**. São Paulo: Thomson Reuters Brasil, 2018.

SANTOS, Ana Alice; COSTA, Jailton de Jesus. A onipresença dos plásticos na relação sociedade-natureza. In: COSTA, Jailton de Jesus; SILVA, André Vinícius Bezerra de Andrade; OLIVEIRA, Ingrid Carvalho Santos; SANTOS, Luiz Ricardo Oliveira (Org.). **Gestão, saúde e educação ambiental**. Aracaju: Criação Editora, 2022.

SANTOS, Boaventura de Sousa. **O futuro começa agora**: da pandemia à utopia. São Paulo: Boitempo, 2021.

SARLET, Ingo Wolfgang; FENSTERSSEIFER, Tiago. **Direito constitucional ecológico**: constituição, direitos fundamentais e proteção da natureza. São Paulo: RT, 2021.

SILVA, Ramon Torres de Brito; SILVA, Raquel Torres de Brito; SOARES, Maria José Nascimento. Cultura do consumo no fomento de injustiças ambientais. In: SOARES, Maria José Nascimento; SILVA, Gicelia Mendes da (Org.). **Reflexões e apontamentos em ciências ambientais**. Aracaju: Criação Editora, 2022.

SILVA, Raquel Torres de Brito; SILVA, Ramon Torres de Brito; COSTA, Sandro Luiz da. As consequências socioambientais provenientes da cultura do consumismo, como formas de um retrocesso ao preceito constitucional de um meio ambiente ecologicamente equilibrado. **Revista de Direito Econômico e Socioambiental**, Curitiba, PUC-PR, v. 9, n. 3, p. 324-346, 2018. Disponível em: https://periodicos.pucpr.br/direitoeconomico/article/view/23791. Acesso em: 25 jan. 2023.

TUPY, Gabriela Santos; SANTOS, Ana Alice; SILVA, Ramon Torres de Brito; CARVALHO, Kleverton Melo de; MORATO, Rosinadja Batista dos Santos. Governança policêntrica no combate ao uso do mercúrio na mineração ilegal em território yanomami. **Revista de Políticas Públicas**, São Luís, UFMA, v. 26, n. 2, p. 760-781, 2023. Disponível em: http://periodicoseletronicos.ufma.br/index.php/rppublica/article/view/20661. Acesso em: 19 set. 2023.

WEETMAN, Catherine. **Economia circular**: conceitos e estratégias para fazer negócios de forma mais inteligente, sustentável e lucrativa. São Paulo: Autêntica Business, 2019.

Ramon Torres de Brito Silva has a master's degree in development and the environment from the Federal University of Sergipe (2023). He has a specialization in civil advocacy from the Fundação Escola Superior do Ministério Público (2023), in real estate, urban planning, registry and notary law from the perspective of advocacy from the Universidade de Santa Cruz do Sul (2020), and in public advocacy and civil procedural law from the Universidade Cândido Mendes (2018).

ORCID: https://orcid.org/0000-0002-4023-6195

E-mail: ramontorresbrito@gmail.com

Maria José Nascimento Soares Graduated in Pedagogy from the Federal University of Sergipe (1991), has a Master's Degree in Education from the Federal University of Sergipe (1996) and a PhD in Education from the Federal University of Rio Grande do Norte (2006). She is a full professor in the Department of Education at the Federal University of Sergipe and in the Graduate Program in Development and the Environment (PRODEMA/UFS). She advises the CESAD/UFS multidisciplinary team.

ORCID: https://orcid.org/0000-0001-7879-4769

E-mail: marjonaso@academico.ufs.br

José Johnatta Feitosa Teixeira Graduated in Languages with a major in Portuguese and English from the Federal University of Sergipe.

ORCID: https://orcid.org/0000-0003-3444-7161

E-mail: mrjoeidiomas@gmail.com

Availability of research data: the dataset supporting the results of this study is published in this article.

Editor in charge: Carla Karnoppi Vasques

