

Il tema: Antropocene e post-antropocene

## Introduction. The Social Construction of the Anthropocene: Theoretical and Ethical Perspectives

## Introduzione. La costruzione sociale dell'Antropocene: prospettive teoretiche e etiche

JORGE EDUARDO DOUGLAS PRICE<sup>1</sup>, GIANPASQUALE PREITE<sup>2</sup>

jorgedouglas@ibap.com.ar; gianpasquale.preite@unisalento.it

Abstract. The ancient one-to-one relationship with the biological life cycle has gradually deteriorated due to the world undergoing a metamorphic process. Such a metamorphosis has affected ecological harmony, in terms of it being both an approach to studying the relationships between living beings and the environment, and a branch of knowledge protecting and promoting ecological balance. One of the crucial aspects of this phenomenon is the need to rethink and redefine the concept of life in an era that has been described as the "Anthropocene". In introducing this special issue of the Journal, the paper aims to investigate the environmental question, which plays a crucial role in contemporary political thought, due to the survival of both nature and mankind being threatened. Since the 1950s, such a complex situation has resulted in two lines of thought whose views follow two opposed ideologies – anthropocentrism and anti-anthropocentrism.

Keywords: anthropocene, anthropocentrism, anti-anthropocentrism, nature, ethics.

Riassunto. L'antico e univoco rapporto con il ciclo biologico si è progressivamente deteriorato a causa del processo metamorfico che il mondo sta subendo. Tale metamorfosi ha intaccato l'armonia ecologica, intesa sia come un approccio allo studio delle relazioni tra gli esseri viventi e l'ambiente, sia come una branca della

<sup>&</sup>lt;sup>1</sup> Universidad Nacional del Comahue

<sup>&</sup>lt;sup>2</sup> Università del Salento

conoscenza che protegge e promuove l'equilibrio ecologico. Uno degli aspetti cruciali di questo fenomeno è la necessità di ripensare e ridefinire il concetto di vita in un'epoca che è stata definita "Antropocene". Pertanto, nell'intento di introdurre i contributi della sezione monografica che segue, questo contributo si propone di indagare la questione ambientale, che gioca un ruolo cruciale nel pensiero politico contemporaneo, a causa della minaccia per la sopravvivenza della natura e dell'uomo. Dagli anni '50, una situazione così complessa ha generato due linee di pensiero che seguono due ideologie opposte: l'antropocentrismo e l'anti-antropocentrismo.

Parole-chiave: antropocene, antropocentrismo, anti-antropocentrismo, natura, etica.

I. Modernity has resulted in a radical change in the paradigm of the relationship between humans and nature. From a political, philosophical, legal, and socio-anthropological perspective, a critical phase seems to have been reached. Human beings have crossed the threshold that will make the Earth unhabitable, as the biological system is no longer able to maintain homeostasis, having lost the capability to correct the effects of human action in the ecosystem. The ancient one-to-one relationship with the biological life cycle has gradually deteriorated due to the world undergoing a metamorphic process¹ involving pollution, deforestation, intensive farming, loss of animal and plant species, overexploitation of common goods, and erosion of resources. Such a metamorphosis has affected ecological harmony, in terms of it being both an approach to studying the relationships between living beings and the environment, and a branch of knowledge protecting and promoting ecological balance.

One of the crucial aspects of such a phenomenon is the need to rethink and redefine the concept of life in an era that has been described as the "Anthropocene". Being more than just a unit of the geologic time scale, the Anthropocene is the era in which human action has become the main factor influencing nature and life on Earth. Ultimately, this means no longer considering life as (only) defined by the Greek term "bios", referring to an individual's unique life that is the source of freedom and human dignity, but also as defined by the Greek word "zoé", which identifies the life that individuals share with the whole world in the biological life cycle.

<sup>&</sup>lt;sup>1</sup> Beck, The Metamorphosis of the World.

<sup>&</sup>lt;sup>2</sup> The term "Anthropocene" was first introduced in Shantser, *The Anthropogenic System*. In the 1980s, the word was popularised by the naturalist and biologist Eugene F. Stoermer in various scientific contexts, and in 1992 it was suggested as a plausible hypothesis for a new geological epoch in Revkin, *Global Warming*, 11. It was publicly and officially used by Stoermer and Nobel Prize-winning chemist Paul J. Crutzen at the IGBP scientific committee meeting in 2000; on this point, cf. Crutzen and Stoermer, *The "Anthropocene."* 

In ancient times, nature was regarded as the vital principle and the end towards which all things tended.<sup>3</sup> This concept was interpreted in terms of a necessary and immutable order<sup>4</sup> that human reason had to recognise so as to adapt to it. It was only in the Renaissance that a shift from Theocentrism to Anthropocentrism occurred, resulting in a paradigmatic turning point that led to a new concept of nature. The latter started to be seen as an objective unit, causally structured by relationships regulated by laws<sup>5</sup> that human beings needed to explain scientifically if they wanted to manipulate the world to their own advantage.

In order to understand the origins of such a change in perspective, it is necessary to observe the phenomena and dynamics that led to the development of experimental science. In the wake of the materialistic and mechanistic approach first adopted by Descartes and later investigated by Galileo and Bacon, a new concept of reality was promoted, together with a new way of interpreting and studying nature. Previously considered to be a vital principle, nature was reduced to a mere expression of the spirit, which became external, incidental, mechanistic, with its original features being degraded. Human beings perceived themselves as part of the natural world and established in it, while simultaneously claiming their privileged position, to the point that they started to consider the world their own kingdom, an area under their control. This new methodological approach aimed at building philosophy on solid and rational foundations, providing a scientific basis for the relationship between the human and natural worlds.

The modernity inherited from the 17th century became evident in the following century, through a meta-scientific dimension that depended on the calculability of things, and hence their phenomenal nature, as they revealed themselves to rational experience. However, such a reality also involved non-quantitative, "manufactured uncertainties", imposed by progress, rapid technological innovation and fast social reactions. These shaped a new area of global risk where individuals were constantly trying to identify stable objective references. Over the past three centuries, the main Western political, ethical and philosophical doctrines have seen the

<sup>&</sup>lt;sup>3</sup> Cf. Aristotle, Metaphysics, V, 4, in Abbagnano, Dizionario di filosofia.

<sup>&</sup>lt;sup>4</sup>Cf. Diogenes Laertius, VII, 1, 148, in Abbagnano, Dizionario di filosofia.

<sup>&</sup>lt;sup>5</sup> Abbagnano and Fornero, Filosofi e Filosofie nella storia, II, 94.

<sup>&</sup>lt;sup>6</sup> This new approach based on experimental science even influenced Descartes's perspective, despite the apparent conflict between rationalism and empiricism. Suffice it to say that, in Part Five of his *Discourse on the Method*, Descartes analysed blood circulation referring to Harvey's undoubtedly empirical discoveries.

<sup>&</sup>lt;sup>7</sup> Cf. Hegel, Encyclopaedia of the Philosophical Sciences, in Abbagnano, Dizionario di filosofia, 247-8.

<sup>&</sup>lt;sup>8</sup> Beck, The Metamorphosis of the World.

environment as part of a relationship in which mankind has become the active subject in the investigation and nature has played the role of a passive object. Such a situation unambiguously describes mankind's dominion over nature, with progress being measured by the products of civilisation and the achievements that distinguish humans from the other living beings and natural things. This instrumental interpretation sees nature as a stock of renewable natural resources, thus contributing to reducing the issue of its management to the maximisation of economic benefits and industrial growth.

As a result, the constant risk of depletion, degradation, and erosion of natural resources leads to emergency being no longer a situational phenomenon, but rather a structural and incontrovertible condition, which may jeopardise the quality of life, and even life itself.

This paper aims to provide a politico-philosophical, ethico-legal and socio-anthropological analysis of both the environmental question and the reasons behind environmental disasters. The environmental question will be thoroughly investigated as it plays a crucial role in contemporary political thought due to the survival of both nature and mankind being threatened. Since the 1950s, such a complex situation has resulted in two lines of thought whose views follow two opposed ideologies – anthropocentrism and anti-anthropocentrism.

The main anthropocentric theories include Frontier Ethics, Conservation Ethics, Ethics of Responsibility, Utilitarianism, Eco-socialism, and Catholic Environmental Ethics. On the other hand, some of the most influential anti-anthropocentric approaches are Preservation Ethics, Biocentrism, Ecocentrism, Deep Ecology, and Shallow Ecology.

II. The main thesis of the teleologically- and ontologically-based anthropocentric approach, which later led to the axiological or ethical view, is that only human beings have intrinsic value. Conversely, all the other "non-human" beings and "inanimate" nature have instrumental value, being just a means to the life and well-being of mankind. Following this approach, human beings may have only indirect obligations and duties towards nature. As a result, climate change, ozone depletion, deforestation, resource depletion, destruction of natural habitats and reduction of biodiversity are to be condemned only because they might prevent human-kind from achieving its long-term objectives. Most of the arguments for

<sup>&</sup>lt;sup>9</sup> Leiss, The Domination of Nature.

<sup>&</sup>lt;sup>10</sup> Passmore, Man's Responsibility for Nature.

<sup>&</sup>lt;sup>11</sup> Blackstone, The Search for an Environmental Ethics.

<sup>&</sup>lt;sup>12</sup> Pellegrino and Di Paola, Nell'Antropocene, 112.

the conservation of natural resources and ecosystems, or for the assessment and management of environmental risks, are either explicitly or implicitly based on an anthropocentric premise. An example of this is provided by the use of cost-benefit analysis in environmental policies and economics, as it is aimed at calculating costs and benefits for *human beings*. According to White, this approach is at the heart of the environmental crisis. An exclusive focus on the objectives and values of human beings might lead to such objectives and values being compromised when nature ends up being destroyed by overexploitation.<sup>13</sup> By justifying the overexploitation of nature, Anthropocentrism is doomed to fail.<sup>14</sup>

Cowboy or Frontier Ethics seems to be the most extreme of anthropocentric theories, as it is based on the idea that the - either necessary or profitable – use of all the natural resources available is a moral duty. 15 This perspective is founded on "frontier" ideologies that consider territorial conquest, colonisation, and urbanisation to be the subjugation of "wild nature", hence a distinctive feature of moral progress and civilisation.<sup>16</sup> Having no moral value, nature is seen as being only characterised by the economic value necessary to meet an individual's material needs. Such an extreme approach is today considered outdated, as it is detrimental to the current (already critical) environmental conditions.<sup>17</sup> With its blind optimism, Frontier Ethics does not consider the issue of resource conservation, expressing an anthropocentric viewpoint that is incompatible with the ecological perspective. However, despite their optimism, the advocates of Frontier Ethics do not seem to be uncaring about the future of mankind. Those who opt for this approach do not deny having a duty towards future generations, but they rather fail to admit that the future of younger generations might have been compromised.

The shift from Frontier to Conservation Ethics occurred when the myth of surplus collapsed, as Cowboy Ethics was based on overabundance. While Locke described wilderness as the place where wild potential is fully expressed, with a variety of living and non-living beings following an internal hierarchy, nowadays ecology has made it clear that everything has a "cost". In other words, while both Frontier and Conservation Ethics consider natural things to have an instrumental value, the adoption of a conservation approach results in a significant increase in the economic, ecological, and social cost that human beings have to pay to make use of

<sup>&</sup>lt;sup>13</sup> White Jr., The Historical Roots of Our Ecological Crisis.

<sup>&</sup>lt;sup>14</sup> Pellegrino and Di Paola, Nell'Antropocene, 113.

<sup>15</sup> Bartolommei, Etica e natura, 45.

<sup>16</sup> Ibid., 45-6.

<sup>&</sup>lt;sup>17</sup> Shrader-Frechette, 'Frontier or Cowboy Ethics' and 'Lifeboat Ethics.'

<sup>&</sup>lt;sup>18</sup> Commoner, The Closing Circle.

the environment. Nevertheless, conservationists maintain that nature has value only as a tool at the service of mankind.<sup>19</sup>

Passmore has maintained that a distinction needs to be made between "conservation" and "preservation". While the concept of conservation is centred on the protection of natural resources in order for the latter to be used in the future, the notion of preservation implies protecting nature and animal species from degradation and extinction. Conservationism is characterised by a greater focus on the future (protecting for utility), whereas a preservationist approach is marked by a mere attention to the status quo (protecting from harm),<sup>20</sup> thus being based on anti-anthropocentric rather than anthropocentric aspects. According to Passmore, a conservationist approach is more appropriate, as it is founded on an efficient management of nature. In order to reach a potential balance between humans and nature, a new ethics should not necessarily be promoted nor should intrinsic value be given to nature. By contrast, the tools of traditional ethics should be used, the latter being based on a general ethical principle that requires every human being to act without harming present and future generations.

The concept of Ethics of Responsibility has been introduced by Jonas. Borrowed from Weber's social theory, it is considered within a philosophy of values whose premise is the distinction between being and having-to-be. According to Weber, while science has to do with facts, philosophy deals with values, which are variable and relative. As values are numerous and incompatible, adhering to some values means ignoring others, which is what Weber has called the "clash of values". A distinction between values is made through either the Ethics of Principles, which is oriented to absolute principles, regardless of the consequences these may lead to, or the Ethics of Responsibility, oriented to the means/ends relationship and the consequences of one's actions. Without focusing on absolute principles, the Ethics of Responsibility takes into account the consequences of an action and acts by paying attention to such consequences. Therefore, the Ethics of Principles and that of Responsibility are opposed and incompatible, as they refer to two different ways of interpreting politics. The Ethics of Principles can be said to be more religious than political. Conversely, the Ethics of Responsibility is inextricably interconnected with politics, as it never loses sight of the consequences of an action.

According to Jonas, the Ethics of Responsibility is centred on both the relationship that human beings have with technology and the awareness

<sup>&</sup>lt;sup>19</sup> Cf. the entry for "Conservationism", in De Roose and Van Parijs, *La pensée ecologiste*, 44; cf. the entry for "Passmore, John", in *Ibid.*, 100-1. On the issue, cf. also Passmore, *The Perfectibility of Man*; Passmore, *Man's Responsibility for Nature*.

<sup>&</sup>lt;sup>20</sup> Bartolommei, Etica e natura, 47-83.

that mankind is no longer threatened by nature, but rather by the power that humans have achieved to rule over the environment. As a result, technology no longer is a neutral aspect of human action, but becomes the object of ethics. Following Jonas, the Ethics of Responsibility may provide a solution to the problems caused by a misuse of technology that are affecting the human condition and the environment. Every human being should feel responsible for their actions and should manage to deal with nature, always taking into account how uncontrolled development might negatively impact present and future generations. In Jonas's words, "Act so that the effects of your action are compatible with the permanence of genuine human life", in order for the consequences of human action not to compromise the conditions for an indefinite continuation of humanity on Earth. "In your present choices, include the future wholeness of Man among the objects of your will". Mankind should follow the categorical imperative of survival. "22"

Utilitarianism is characterised by a totally different approach. According to this doctrine, an action is morally right in so far as it produces happiness, pleasure, and appreciation for all the people affected, the result being better than that produced by any other alternative action. The theory by which happiness is the ultimate end of moral action is called "ethical hedonism". Although some contemporary utilitarians use the expression "preference satisfaction", whereas classical, hedonistic utilitarians use the term "happiness", both approaches seem to be opposed to Kantian ethics. Mill has attempted to adjust Kant's categorical imperative to Utilitarianism, by trying to adapt human behaviour to a rule that all rational beings may adopt to the benefit of a general, collective interest.<sup>23</sup> However, Kant's fundamental principles are not compatible with Mill's interpretation, which denies the Kantian idea of the categorical imperative, transforming all the rules into mere theoretical imperatives.

The utilitarian maximisation of well-being, in terms of the relationship between mankind and the environment, contrasts with the theories of rights. This is due to Utilitarianism focusing on the consequences rather than on the intrinsic morality of an action, contrary to what happens in environmental philosophy. Unlike the theories of rights, Utilitarianism does not recognise the fundamental moral rights associated with nature or its single elements and, for reasons of practical usefulness, considers nature and its elements mere resources.<sup>24</sup>

<sup>&</sup>lt;sup>21</sup> Jonas, The Imperative of Responsibility, 11.

<sup>&</sup>lt;sup>22</sup> Jonas, Organismo e libertà; Tallacchini, Diritto per la natura, 19-23, 122-31.

<sup>&</sup>lt;sup>23</sup> Nakano-Okuno, Sidgwick and Kant.

<sup>&</sup>lt;sup>24</sup> See Norton, Why Preserve Natural Variety?; Norton, Toward Unity Among Environmentalists; Tallacchini, Diritto per la natura, 81-93.

A different approach has been adopted by Eco-socialism, which developed from Marx's theories, focusing on the idea that man is one of the forces of nature and, as such, acts to shape and transform it.<sup>25</sup> As nature is considered to be man's inorganic body, man has to maintain a continuing dialogue with it in order to survive. From a socialist perspective, such a dialogue is a form of man's social dominion over the natural world, aimed at the survival of mankind rather than the exploitation of natural resources in pursuit of profit, as it is for capitalism. Marx's concept of the dominion over the natural world implies understanding the various aspects of nature, in order for the latter to undergo a transformation that is necessary to human life, always within the limits of the environment and in a constant dialectic relationship with it.<sup>26</sup>

Jonas partly embraced Eco-socialism, maintaining that the Marxist model, due to its authoritative and centralist characteristics, is the only model capable of taking responsibility for the future of mankind and nature. According to Jonas, only a strong system allows us to impose the strict behaviour and measures that are currently necessary to protect the planet.<sup>27</sup> On the other hand, O'Connor has pointed out that when capitalism is not controlled and limited by the state, it is impossible to halt the progressive deterioration of the conditions of production it causes. Unrestrained capitalism harms nature, and hence the environment, jeopardising the possibility of continuing to produce. An interesting perspective has been provided by Ubertini, who has argued that politics no longer represents class consciousness, but rather species consciousness, simultaneously and universally embodying the socialist and ecological ideas (Eco-socialism).<sup>28</sup> The new rights of nature tend to embrace this perspective, together with an eco-social and democratic rule of law, to be considered the ultimate aim of socialist development.<sup>29</sup> The economic imbalances across the world translate into general imbalances between mankind and nature, between individuals and resources, between goods and needs. According to Ubertini, in order to reach an ecological idea of state aimed at restoring the balance, a bottom-up and top-down syncretic and systematic approach is necessary, with it having a structural, rather than situational, value.

A further approach is provided by Catholic environmental ethics. For a long time, Catholicism has been criticised because of its excessive-

<sup>&</sup>lt;sup>25</sup> For a more comprehensive analysis of the issue, see Järvikoski, *The Relation of Nature and Society*; Parsons, *Marx and Engels on Ecology*. See also O'Connor, *L'ecomarxismo*; Livorsi, *Il mito della nuova terra*; Ubertini, *Ecosocialismo*, 24-7.

<sup>&</sup>lt;sup>26</sup> Järvikoski, The Relation of Nature and Society, 73-86.

<sup>&</sup>lt;sup>27</sup> Cf. Jonas, The Imperative of Responsibility.

<sup>&</sup>lt;sup>28</sup> Ubertini, Ecosocialismo, 24.

<sup>&</sup>lt;sup>29</sup> Ibid., 25.

ly anthropocentric influence on human action. However, in the current socio-political scenario, the Church has overcome criticism, clarifying the interpretation of the concept of nature in *Genesis*, where human beings are not seen as tyrants ruling over nature, but rather as the keepers of creation. In the encyclical *Evangelium Vitae*, Pope John Paul II considers the human being at the summit of God's creative activity and, at the same time, confirms the presence of an anthropological mistake when it comes to the senseless destruction of the environment, caused by the current failure to recognise the value of creation, which leads to legitimising destruction itself.<sup>30</sup>

According to the theologian Moltmann, the present and future life of mankind depends on the respect for three categories of rights: human rights (with man being a subject of rights), the rights of humanity (with mankind being a subject of rights), and the rights of nature (with living beings and the soil being subjects of rights). This means that the human rights to life and existence are valid as long as humans respect the rights of the earth and other living beings.<sup>31</sup> Such an interpretation focused on the value of creation and the rights associated with it results in the natural world having greater moral worth than mankind, with this worth being recognised regardless of any human judgement. Following this theoretical approach, human beings no longer have a central role in the natural world, as they are seen as a part of a whole. Therefore, natural elements are said to be able to build moral relationships with humans, with the parties being regarded as equals. Such a new interpretation of the relationship between humans and nature requires rebuilding, rather than just reforming, traditional ethical models.<sup>32</sup>

Based on their perspective, anti-anthropocentric environmental ethical theories might be divided into two groups. With ecology being described as the scientific discipline studying the interactions between organisms and the environment, a first group, including Deep Ecology, is characterised by the theories that consider ecology a source of new knowledge, and hence a source of philosophy. On the other hand, a second group of theories, including Shallow Ecology, reject such an approach, considering the environment a mere object of philosophy. A further distinction needs to be made between speciesist theories, implying an unfair discrimination based on one's species membership, and non-speciesist theories.<sup>33</sup>

<sup>30</sup> Cf. John Paul II, Sollicitudo rei socialis; John Paul II, Encyclical Letter "Evangelium Vitae".

<sup>&</sup>lt;sup>31</sup> Moltmann, Diritti umani, diritti dell'umanità e diritti della natura.

<sup>32</sup> Fisso and Sgreccia, Etica dell'ambiente, 12-3.

<sup>&</sup>lt;sup>33</sup> Mancarella, Il diritto dell'umanità all'ambiente, 156-7, 170.

Anti-anthropocentric approaches include Preservation Ethics, theorised by Leopold in *A Sound County Almanac*,<sup>34</sup> where he outlined his idea of "land ethic". According to Leopold, the human being is only one of the multiple elements that belong to the "biotic community", which includes all organic and inorganic beings. This is a community that has a moral value per se, without it being conferred by human beings. Therefore, human action is legitimised only when it does not compromise the balance between the various elements of the physical reality. "A thing is right when it tends to preserve the integrity, stability, and beauty of the biotic community. It is wrong when it tends otherwise." <sup>35</sup>

However, when philosophical anthropology re-emerged in the 20th century, Leopold's idea of the necessity of preserving the stability of the biotic community was completely reversed. Following philosophical anthropology, the key issue is to understand the reason why human beings appear to be the only living beings that do not just live in the world, but that, while doing so, (constantly and artificially) create tools and devices to rule and change it.

Conversely, Biocentrism awards moral worth to non-human beings, such as animals and plants, holding that life in all its forms always has moral worth. Therefore, Biocentrism includes both the theories that support animal rights<sup>36</sup> and those that award moral worth to plants. The most prominent representatives of the theories that support animal rights are Singer and Regan.<sup>37</sup> According to such theories, animals have moral worth as they are sentient beings that experience joy and suffering or, in some cases, have cognitive abilities similar to human ones. As for the theories that award moral worth also to plants, Goodpaster and Taylor argue that all living organisms have interests and, consequently, the right to pursue them. This results in the rights of nature.<sup>38</sup>

Ecocentrism extends the status of moral object to holistic dimensions, with the biosphere representing the unit of survival that ethics should take into account. Holistic ethics considers the biotic community as a whole to be the standard for the evaluation of the relative value and order of its integral parts. However, while some ecologists believe in a kind of

<sup>&</sup>lt;sup>34</sup> Leopold, *A Sound County Almanac*; Bartolommei and Salvadori, *Letica della terra*, 113-23. <sup>35</sup> *Ibid.*, 122.

<sup>36</sup> See Salt, Animal Rights.

<sup>&</sup>lt;sup>37</sup> Cf. Singer, Practical Ethics; Singer, Animal Liberation; Singer, The Expanding Circle; Singer, In Defense of Animals; Regan, Singer, Animal Rights and Human Obligations; Regan, All That Dwell Therein; Regan, The Case for Animal Rights; Regan, Earthbound; Fisso and Sgreccia, Etica dell'ambiente, 15-7.

<sup>&</sup>lt;sup>38</sup> See Goodpaster, On Being Morally Considerable, 308-25; Goodpaster, From Egoism to Environmentalism; Taylor, Respect for Nature.

humanistic holism that is compatible with basic human concerns, others support a sort of biospheric egalitarianism-in-principle. As human beings are part of the biotic community, they are seen as knots in the network of biospheric relationships, having no right to special treatment. Their value is to be assessed against the "right to live and flourish" of any other form of life. However, a number of philosophers have expressed scepticism about the logical and practical consequences of such holistic ethics. By arguing that the biotic community cancels the rights of individuals, holism might evolve into a form of eco-fascism. According to these views, human beings have been absorbed by nature. Swallowed up by the organic processes of the biosphere, they have lost both their cultural identity and their human dignity, once characterised by freedom, reason, and social relationships. Holism has been accused of encouraging a return to biocentric attitudes and cultural tribalism. When it does not adopt an extreme approach, Ecocentrism recognises the moral worth of physical entities that have no specific biological characteristics, such as air and water, based on the idea that they have interests.<sup>39</sup> According to this perspective, mankind should embrace a new form of "ecological" ethics, a new level of moral awareness that connects human beings with the natural world, a symbiotic relationship with the other physical entities of the biosphere. 40

In the 1970s, Naess identified two possible paths for the environmental question:<sup>41</sup> Deep Ecology and Shallow Ecology.

Deep Ecology deals with both egalitarianism among the different components of the biosphere and the relationships between humans and nature. In this sense, ecology (interpreted as the science studying the relationships between an organism and the environment, and considered to be among the most dynamic branches of biology) is seen as a source of philosophy.<sup>42</sup>

Shallow Ecology focuses on the impact of environmental issues on human populations and on the latter's ability to develop. Such an approach does not consider ecology to be the source of new knowledge, but sees the environment as the object of philosophy.<sup>43</sup>

Despite sharing with Ecocentrism the concept of egalitarianism, Deep Ecology differs from the other theories because it hopes for a new cultural form, without merely extending the status of moral object to oth-

<sup>&</sup>lt;sup>39</sup> Mancarella, *Il diritto dell'umanità all'ambiente*, 175.

<sup>&</sup>lt;sup>40</sup> Cf. Tallacchini, Diritto per la natura, 115-22.

<sup>&</sup>lt;sup>41</sup> See Naess, The Shallow and the Deep, 95-100; Naess, A Defense of the Deep Ecology Movement, 265-70; Naess, Ecosofia.

<sup>&</sup>lt;sup>42</sup> See Tallacchini, *Diritto per la natura*, 53-9, 106-12; Fisso and Sgreccia, *Etica dell'ambiente*, 20-2.

<sup>&</sup>lt;sup>43</sup> Mancarella, Il diritto dell'umanità all'ambiente, 177.

er non-human entities, as Ecocentrism suggests. In particular, Naess has maintained that all living beings have the right to flourish, which leads to the need to build deep relationships between all natural things. However, in order for these relationships to be established in human society, the latter should be reshaped into smaller communities held together by solidarity, which might result in a gradual reduction of society itself.<sup>44</sup>

The importance of Naess's analysis lies in the overcoming of the traditional distinction between anthropocentrism and anti-anthropocentrism. A new dichotomy is introduced, with the various environmental ethical theories embracing either Deep or Shallow Ecology.

According to Fox, Deep Ecology evolves into transpersonal ecology, which is based on a psychological approach to the environmental question. Considered to be the father of transpersonal ecology, Fox focuses on the realisation of a sense of self that goes beyond one's own personal self typical of the ego.<sup>45</sup> Such a perspective rejects any approach implying moral duties and encourages the realisation of as expansive a sense of self as possible in order to establish a process of cosmologically-based, rather than personally-based, identification with the other beings. Following Naess, all the entities that are part of a living system have such intrinsic value, with these systems being autopoietic, i.e., self-organising and self-regenerating. Therefore, not only plants and animals, but also species and ecosystems need to be regarded as entities. For all these reasons, Fox's theories are often associated with ecocentrism-based ethics.

III. In the 1970s, a political debate about the relationship between humans and nature developed in the British context,<sup>46</sup> with several issues being raised. There was discussion on whether human beings have moral duties and obligations towards the environment, non-human species, and ecosystems, or whether morality and duties pertain only to present and future human relationships. Scholars wondered about the potential ethical repercussions, if any, of the impact that human action has on the biosphere and other forms of life. They also tried to explain the historical process that has led to the overexploitation of the environment.

Such issues cannot be resolved unambiguously, being based on an ideology that developed from the confluence of ideas that evolved over centuries and came from different disciplines, going to build what has been described as the paradigm of modernity.<sup>47</sup> This paradigm is character-

<sup>44</sup> Ibid.

<sup>&</sup>lt;sup>45</sup> Fox, Fondamenti antropocentrici; Poli and Timmerman, Letica nelle politiche ambientali, 132.

<sup>&</sup>lt;sup>46</sup> Among the several essays written in that period, Passmore's work emerged, with *Man's Responsibility for Nature* being published in 1974.

<sup>&</sup>lt;sup>47</sup> Cf. Kuhn, The Structure of Scientific Revolutions.

ised by mechanism, reductionism, individualism, rational and analytical thought, subjectivism, and man-nature dualism. It is further strengthened by the production and consumption ideology at the base of the globalised economy and by the limitations that technology has managed to overcome, which have resulted in a shift from restrained exploitation to a global environmental crisis.

This means that the main assumptions and values characterising Western culture should be rethought, rejecting the theoretical models that outlived their usefulness and reintroducing some of the values previously abandoned. Such a deep change in the mindset of the Western world also requires a radical change in most social relationships and structures, a change that should go beyond the short-lived, situational economic and political reconciliation that is usually fostered at a governmental level.<sup>48</sup>

Therefore, a utopian project exists, an alternative paradigm to the human domination of nature. However, although single individuals might become aware of the need for a change, the situation seems to be more complex when it comes to society as a whole. Habits are so deeply rooted in society that the changes made by single individuals might end up being too slow and insufficient if they are not supported and guided by organisations and political institutions able to promote cooperation between people, communities, and countries. The environmental crisis is a global problem that must be faced at a global level. It puts into play one's representations of the human being and nature, with the environment becoming a global political problem, since it affects mankind as a whole. As a result, the environmental question needs to be dealt with in the three systems that might rapidly impact human beings' negative and self-destructive habits, these systems being ethics, politics, and the law.

In *La nature hors la loi*, Ost has argued that, in modern times, the relationship between humans and nature has been deprived of the idea of connection and limit, with nature being either seen as an object or transformed into a subject. On the other hand, a dialectics of connections and limits might allow to define the terms of a nature-project investigating "what we make of nature and what nature makes of us." A new field of interdependent interaction should be introduced, which the author has called *milieu*, a term describing the idea that man is part of the environment, being in its "middle". <sup>50</sup>

Modern scholars were right in thinking that the human being cannot be reduced to nature and that their detachment from nature is definitive

<sup>&</sup>lt;sup>48</sup> Cf. Capra, The Turning Point.

<sup>&</sup>lt;sup>49</sup> Ost, The Philosophical Foundation of Environmental Law, 4.

<sup>&</sup>lt;sup>50</sup> Ost, La nature hors la loi, 9, 338.

proof of their humanity. Conversely, they were wrong in forgetting that limits are an "implied difference", which has led to limitlessness and irresponsibility. Some thinkers are currently trying to reverse such a perspective – it is not the earth that belongs to the human being, but the human being that belongs to the earth. However, when having to interpret the connections and limits characterising the relationship between humans and nature, this nature-subject model does not seem to be better than the nature-object approach. Man and nature are linked to one another without one being reduced to the other.<sup>51</sup>

Dualism and monism, which are reductive and complementary approaches, need to be contrasted with a mediation perspective based on the idea of a "world no 3",52 the "domain of hybrid forms".53 Such an approach implies developing some interdisciplinary ecological knowledge, which should not be a science of nature nor a science of man, but rather a science of their relationship.54 This interdisciplinary knowledge entails a dialectical interpretation of the world, as dialectical thinking is the approach that more than any other involves connections and limits.55 A common project is necessary, together with a joint action aimed at the harmonisation and complementarity of economic and environmental policies. A project including growth and development while protecting environmental quality and social equality. A project that might raise awareness of responsibility and care, in order for mankind to continue pursuing sustainable development, ensuring the right to life of the present and future generations.

IV. A different approach has been introduced by feminist authors, whose perspective is not in line with modern androcentrism. A new contextualised ethics has emerged, opposing the Ethics of Responsibility, which was centred on abstract moral principles (formalism) and implied universal solutions to moral problems. Based on the theories developed by authors such as Gilligan and Warren, this new contextualised ethics aims to adopt the point of view of "the other", with all its particular features, maintaining that there should not necessarily be universal solutions to the moral question.

As Sesma<sup>56</sup> has pointed out, making reference to Warren, Ecofeminism emerges as a theoretical thought and political practice that unites the demands of the ecological movement with those of gender equality. It

<sup>&</sup>lt;sup>51</sup> *Ibid.*, 15

<sup>&</sup>lt;sup>52</sup> Ost, The Philosophical Foundation of Environmental Law, 4.

<sup>&</sup>lt;sup>53</sup> *Ibid.* See also Ost, *Le milieu*.

<sup>54</sup> Ost, La nature hors la loi, 8.

<sup>55</sup> Ibid.

<sup>&</sup>lt;sup>56</sup> Velasco-Sesma, Ética del cuidado, 171-93.

attempts to seriously deal with the relationship between ecology and feminism, highlighting that the domination of women and the domination of nature show historical, empirical, symbolical, epistemological, ethical, political, and conceptual connections. The analysis of such connections allows us to better understand the environmental crisis, as it reveals the gender elements concerning the wrong interpretation of the world that has led to the current unsustainable situation. Similarly, it allows us to establish that such a crisis also is a feminist question. Consequently, "any feminist ethics that fails to take seriously the twin and interconnected dominations of women and nature is at best incomplete".<sup>57</sup>

Warren has argued that the exclusion of women from culture and power has resulted in a strong androcentric prejudice in the symbolic sphere. Such a mechanism emerged in the 17th century, in a patriarchal context of social and political repression.

The fundamental social and intellectual problem for the seventeenth century was the problem of order. The perception of disorder, so important to the Baconian doctrine of dominion over nature, was also crucial to the rise of mechanism as a rational antidote to the disintegration of the organic cosmos. [...] In the organic world, order meant the function of each part within the larger whole, as determined by its nature. [...] In the mechanical world, order was redefined to mean the predictable behaviour of each part within a rationally determined system of laws. [...] Order and power together constituted control. Rational control over nature, society, and the self was achieved by redefining reality itself through the new machine metaphor.<sup>58</sup>

This change in metaphors has transformed the attitude of human beings towards nature. While the identification of the earth with a nurturing mother implied some moral and social constraints when it came to interacting with nature, the change in imagery removed such constraints and legitimised the domination of nature. Merchant has argued that this transformation was necessary for the development of commerce and production, which depended on activities directly altering the earth, such as mining and deforestation. In other words, the old image of the world was incompatible with the new activities that started developing in the 16th and 17th centuries. Although human beings have constantly made use of natural resources over the centuries, new technologies have accelerated environmental deterioration. Technological development has brought with it the disappearance of the organic images of nature.<sup>59</sup>

<sup>&</sup>lt;sup>57</sup> Warren, El poder y la promesa, 117-46.

<sup>&</sup>lt;sup>58</sup> Merchant, The Death of Nature, 269-72.

<sup>59</sup> Ibid.

Unlike the perspectives that are based on Kant's theory and focused on the public sphere,<sup>60</sup> the approaches centred on "the other" are based on difference, thus including also non-human beings.

An example of such an approach is provided by Svampa, the Argentinian sociologist who has linked together the perspective of indigenous cultures, the general aspects of ecofeminism, and the specific characteristics of popular feminism in Latin America. Svampa has made reference to the American philosopher and feminist Haraway who, by quoting the biologist Tsing, has maintained that in the long Holocene period there was a large number of areas where organisms could shelter to overcome adverse conditions and later adopt a repopulation strategy. Although the different forms of life on the planet have always shown great resilience, the drastic change brought about by the Anthropocene has led to the destruction of areas and times of shelter for any organism, be it an animal, plant, or human being. This has been due to both the scope and speed of the process.<sup>61</sup> The Anthropocene shows the limits of human action before a nature that reacts unpredictably. This means that contemporary philosophy also has to investigate a new concept of freedom, which can no longer be interpreted as a result of the human being's lack of commitment towards nature. The human relationship with nature needs to be questioned by other ontologies, so as to develop a new environmental ethics that can ensure a sustainable world order.

Part of this new environmental ethics will certainly have to deal with the acknowledged but often ignored issue of overpopulation, which has to face ancient prejudices. The world population increased from 900 million people in 1800 to about 7.5 billion people in 2018. It is estimated that by 2050, nearly 10 billion people will inhabit the Earth, with most of them living in developing countries. As Svampa has pointed out, overpopulation is detrimentally affecting the regeneration of ecosystems. If the current consumption system continues to be adopted, it is projected that by 2030 the equivalent of two Earths will be needed to support mankind.<sup>62</sup>

This implies having to deal with different interpretations of the Anthropocene, from the traditional one, which describes the period as having the above-mentioned features, to those that question it, including the theory developed by the Hindu historian Dipesh Chakrabarty. Chakrabarty has argued that a temporal dislocation is necessary and that the theoretical categories available, including those provided by Marx-

<sup>&</sup>lt;sup>60</sup> However, boundaries are not clearly defined, as the feminist movement has shown by introducing private issues such as domestic violence and abortion in the public debate.

<sup>&</sup>lt;sup>61</sup> Svampa, Antropoceno, 8-9.

<sup>62</sup> Ibid, 14.

ism, are not sufficient to understand the Anthropocene. This, however, does not mean denying that a connection exists between capitalism and climate change. Conversely, it means that a counterfactual scenario of global socialism and "well-being" parameters could cause an increase in our ecological footprint. As Svampa has pointed out, far from proposing a relational paradigm that might go beyond a dualistic interpretation, Chakrabarty postulates the need to just shift from "pure Anthropocene" to "enlightened Anthropocene", having a greater awareness of mankind's fragile relationship with nature and its irreversible effects.<sup>63</sup>

Another interpretation, which might be labelled as "positivist neo-optimism", suggests that technology will solve the problems that technology itself has caused. Following this approach, devices and artificial intelligence might help to "recycle" both humankind and the planet, leading to a "super-human" that will have more in common with a cyborg than a human being.

A further interpretation is provided by Eco-Marxism. The environmental question has been a controversial issue for Marxism, which originated from modernity and the concept of the universal development of productive forces. It was only between the 1980s and 1990s that the ecological perspective was introduced. Authors like O'Connor<sup>64</sup> and Foster<sup>65</sup> have highlighted the costs of raw materials in terms of constant and variable capital, land taxation, and any negative externalities.<sup>66</sup>

The interpretation provided by the Brazilian anthropologists Danowsky and Viveiros de Castro<sup>67</sup> focuses on the collapse of the modern distinction between the cosmological order and the anthropological order, which would lead to a Second Coming and a subsequent new end of the world. However, as Svampa has argued, the issue of the end of the world is paralysing, as it would take humanity back to the moment before the Black Death, resulting in resignation. The various apocalyptic narratives provide a series of mytho-cosmological versions, focusing on the world of the present generations, the world of the future generations, the world that will survive humanity, and the post-human world.<sup>68</sup>

Summarising the various narratives, Svampa has pointed out how only one of them identifies capitalism as the solution to the socio-ecological crisis. Conversely, the others seem to increasingly admit that modernity has led to serious consequences, due to its idea of the domination of

<sup>&</sup>lt;sup>63</sup> Chakrabarty, "Quelques failles dans la pensé du changement climatique", 133-41.

<sup>&</sup>lt;sup>64</sup>O'Connor, Causas naturales: ensayos de marxismo ecológico.

<sup>&</sup>lt;sup>65</sup> Foster, Marx y la fractura en el metabolismo universal de la naturaleza.

<sup>66</sup> Svampa, Antropoceno, 17.

<sup>&</sup>lt;sup>67</sup> Cf. Danowsky and Viveiros de Castro, L'arret du monde.

<sup>&</sup>lt;sup>68</sup> Svampa, Antropoceno, 19-20.

nature, marked by technological development and interconnected with the expansion of capital and increased social and environmental inequality. This has led Svampa to question the use of the word "anthropos", wondering whether it is possible to talk about the human species in rigid, general terms, without taking into account the historical responsibilities connected with the role of social classes and imperialism. If a new paradigm of civilisation needs to be developed, should the critical thinking stemming from the Anthropocene be independent from the social history of mankind? And would this mean replacing the general, simplistic term "Anthropocene" with the expression "Capitalocene"?<sup>69</sup>

The difference between Anthropocene and Capitalocene has been analysed by Ulloa, who has emphasised the gap between global interpretations, linked to climate change, and Latin American critical interpretations, linked to the dynamics of neo-extractivism. Ulloa has identified four flows that make the Anthropocene a global phenomenon, to the detriment of the local processes characterising southern and peripheral areas of the world. Such flows are "geopolitics of knowledge, territorial differentiation, displacement of extractivism, and lack of recognition of other ontologies and epistemologies." Ulloa has highlighted the multidimensional aspects of the scenarios and situations that the global anthropocenic approach tends to underplay or ignore.<sup>70</sup>

The use of the word "Anthropocene" to describe the current environmental crisis has been challenged by several Latin American scholars, who have opted for the notion of "Capitalocene". For instance, Machado Araoz<sup>71</sup> has embraced Moore's Eco-Marxist interpretation, suggesting a connection between capitalist production, nature, and American history to explain the origins of the Capitalocene. Acosta also has opted for the concept of Capitalocene, maintaining that the idea of Anthropocene hides the origins of the current situation, as it describes human beings as a global species, failing to take into account their specific way of life and organisation across the world, at various times and on different local, regional, national and global scales.<sup>72</sup>

The issue is still unsolved. The debate about the Anthropocene may result in a series of systems that act blindly in order to continue carrying out the functions they had when they developed in the "environment". Or, as Malm has stated, "Who's driving us toward disaster? A radical answer would be the reliance of capitalists on the extraction and use of fossil

<sup>69</sup> Ibid., 20.

<sup>&</sup>lt;sup>70</sup> Ulloa, Dinámicas ambientales, 58-73.

<sup>71</sup> Machado Araoz, Sobre la naturaleza realmente existente.

<sup>&</sup>lt;sup>72</sup> Acosta, Antropoceno, capitaloceno, faloceno y más, 284.

energy. Some, however, would rather identify other culprits. The earth has now, we are told, entered 'the Anthropocene': the epoch of humanity".<sup>73</sup>

Climate science, politics, and discourse are constantly couched in the Anthropocene narrative: species-thinking, humanity-bashing, undifferentiated collective self-flagellation, appeal to the general population of consumers to mend their ways and other ideological pirouettes that only serve to conceal the driver. To portray certain social relations as the natural properties of the species is nothing new. Dehistoricizing, universalizing, eternalizing, and naturalizing a mode of production specific to a certain time and place – these are the classic strategies of ideological legitimation. They block off any prospect for change.<sup>74</sup>

V. Our interpretation might be summarised by the idea that the difference between the human being and nature has been established without taking into account the criterion that supports it, that is, the principle of distinction.

The previous brief historical analysis has shown how "the local embodiment of a Cosmos grown to self-awareness" (Sagan) – human beings – have always maintained a theomorphic idea of their relationship with the environment.

When the shift from Theocentrism to Anthropocentrism occurred in the Renaissance, a change of attitude followed. While the vicissitudes of life were previously dealt with resignedly and human life was regarded as the path to eternal life, with the ecological impact being low, the new anthropocentric approach resulted in human beings starting to make use of the natural elements to make their lives longer, safer, and more comfortable.

Those (relatively) successful attempts led to what might be called "positivist optimism", which began to characterise all the fields of human knowledge, including politics, ethics, and the law. Happiness started to be interpreted as pleasure or enjoyment, was measurable, and could allow for the creation of a desirable society for "the greatest number" (Bentham). Any effort to reach that objective was "justified". Even experiments with inert elements and living beings, humans included, were justifiable, as they contributed to replacing the idea of resignedly accepting the vicissitudes of life, in the hope of eternal life, with a sort of never-ending "carpe diem" (Boccaccio). Humans went from being "divine creatures" resignedly waiting for their life to happen to being divine creatures that saw themselves as a demiurge, in a trance and going to disappear like a "sorcerer's apprentice".

<sup>&</sup>lt;sup>73</sup> Malm, The Anthropocene Myth, 1.

<sup>&</sup>lt;sup>74</sup> Ibid., 4.

When dealing with the effects of that evolution and the weapons derived from it, today's individuals have to face a sort of new pandemic, which allows them to see what has always been there. Human beings know that they know nothing, that any human action is a "natural action", that humanity cannot be separated from nature. Human beings know they are the part of nature that has been provided with awareness, despite such awareness being "fake", as it lacks those claims of truth that characterised it in the early modern era and made human beings more careful, fearful of themselves rather than gods or fate. Although scholars have pointed out how human action might put an end to the entire biosystem, due to experiments, weapons, and nuclear accidents, the truth is that the most endangered species in that system is the human species.

Therefore, following Ulloa, it is worth wondering, within the narrative of the Anthropocene, where the decisions on global policies to tackle climate change are going to be taken, and whether the relationships with non-humans are going to be rethought. Will the historical inequalities caused by misappropriation be taken into account? Can the debate on the Capitalocene influence global economic and environmental policies? What are the available options to confront land and environmental appropriation? How can other economies be positioned?<sup>75</sup> In Bruno Latour's words,

What are we supposed to do when faced with an ecological crisis that does not resemble any of the crises of war and economies, the scale of which is formidable, to be sure, but to which we are in a way habituated since it is of human, all too human, origin? What to do when told, day after day, and in increasingly strident ways, that our present civilization is doomed; that the Earth itself has been so tampered with that there is no way it will ever come back to any of the various steady states of the past? What do you do when reading, for instance, a book such as Clive Hamilton titled Requiem for a Species: Why We Resist the Truth about Climate Change – and that the species is not the dodo or the whale but us, that is, you and me? Or Harald Welzer's Climate Wars: What People Will Be Killed For in the 21st Century, a book that is nicely divided in three parts: how to kill yesterday, how to kill today, and how to kill tomorrow! In every chapter, to tally the dead, you have to add several orders of magnitude to your calculator!<sup>76</sup>

As Zylinska has stated,<sup>77</sup> a new narrative should be created, a new ethics that is far from both guilt and individualistic solutions, but focuses on shared responsibilities. A feminist counter-apocalypse is necessary, with an ethics and politics of care being established, in order for the future of

<sup>75</sup> Ibid., 70.

<sup>&</sup>lt;sup>76</sup> Latour, Waiting for Gaia.

<sup>&</sup>lt;sup>77</sup> Zylinska, Minimal Ethics for the Anthropocene.

humanity to no longer be doomed. Human beings should realise that they are not the only living beings able to cooperate with others.

For all of the above-mentioned reasons, the current phase of modernity is characterised by the – either actual or manufactured – urgent issues attributable to the relationship between humans and nature. Indeed, one of the paradoxes of contemporary society is the fact that environmental emergencies and ecosystem problems can no longer be seen as a break in normality, having become a constant experience. Contemporary society is constantly causing emergency situations, which should lead us to redefine its innermost characteristics and reconsider its paradoxes. Such paradoxes are at the heart of the analyses presented in the papers in this issue, which focuses on the Anthropocene and Post-Anthropocene.

## **Bibliography**

Abbagnano, Nicola and Giovanni Fornero. Filosofi e Filosofie nella storia. Torino: Paravia, 1986, II: 94.

Abbagnano, Nicola. Dizionario di filosofia. Milano: Tea, 1973.

Acosta, Alberto. "Antropoceno, capitaloceno, faloceno y más," *Rebelión*, 2018, http://www.rebelion.org/noticia.php?id=237383.

Albrow, Martin. *The Global Age. State and Society beyond Modernity*. Cambridge: Polity Press, 1996.

Auer, Alfons. Etica dell'ambiente. Brescia: Queriniana, 1988.

Bartolommei, Sergio. "L'etica della terra," Critica marxista, no. 4 (1987): 113-23.

Bartolommei, Sergio. Etica e ambiente. Aldo Leopold e il valore morale degli oggetti naturali, in Questioni di bioetica. A cura di Maurizio Mori. Roma: Editori Riuniti, 1988.

Bartolommei, Sergio. Etica e natura. Roma-Bari: Laterza, 1995.

Beck, Ulrich. *The Metamorphosis of the World*. Cambridge: Polity Press, 2016.

Blackstone, William T. *The Search for an Environmental Ethics*, in *Matters of Life and Death. New Introductory Essays in Moral Philosophy*. Edited by Tom Regan. New York: Random House, 1980. DOI:10.5840/enviroethics19813243

Capra, Fritjof. Il punto di svolta. Milano: Feltrinelli, 1984.

Capra, Fritjof. La rete della vita. Milano: Rizzoli, 1997.

Capra, Fritjof. *The Turning Point: Science, Society, and the Rising Culture.* New York: Bantam Books, 1982.

Chakrabarty, Dipesh. "Quelques failles dans la pensée du changement climatique." In *De l'univers clos au monde infini*. Ed. par Emile Hache: 107-47. Paris: Editions Dehors, 2014.

- Commoner, Barry. Il Cerchio da Chiudere. Milano: Garzanti, 1986.
- Commoner, Barry. *The Closing Circle: Nature, Man, and Technology.* New York: Random House Inc., 1971.
- Crutzen, Paul J. and Eugene F. Stoermer. "The Anthropocene," *IGBP Newsletter*, no. 41 (2000), http://www.igbp.net/download/18.31 6f18321323470177580001401/1376383088452/NL41.pdf. URL accessed 23 January 2018.
- De Roose, Frank and Philippe Van Parijs. *La pensée ecologiste*. Brussels: De Boeck Université, 1991.
- Fisso Maria Beatrice and Elio Sgreccia. "Etica dell'ambiente," *Medicina e Morale*, no. 3 (1997). https://doi.org/10.4081/mem.1997.889
- Foster, Bellamy J. "Marx y la fractura en el metabolismo universal de la naturaleza," *Monthly review*, 15 (2014): 1-18.
- Fox, Warwick. "Fondamenti antropocentrici e non antropocentrici nelle decisioni sull'ambiente." In *L'etica nelle politiche ambientali*. A cura di Corrado Poli e Peter Timmerman. Padova: Gregoriana Libreria Editrice, 1991.
- Goodpaster, Kenneth E. "From Egoism to Environmentalism." In *Ethic and Problems of the 21st Century*. Notre Dame: University of Notre Dame Press, 1979.
- Goodpaster, Kenneth E. "On Being Morally Considerable," *The Journal of Philosophy*, no. 75 (1978): 308-25. DOI: 10.2307/2025709.
- Järvikoski, Timo. "The Relation of Nature and Society in Marx and Durkheim," *Acta Sociologica*, vol. 39, no. 1 (1996), *Sociology and the Environment*: 73-86.
- John Paul II. Encyclical Letter "Evangelium Vitae". Vatican City: Libreria Editrice Vaticana, 1995.
- John Paul II. *Sollicitudo rei socialis*. Vatican City: Libreria Editrice Vaticana, 1987.
- Jonas, Hans. *Il principio responsabilità. Un'etica per la civiltà tecnologica.* Torino: Einaudi, 1990.
- Jonas, Hans. *Organismo e libertà*. *Verso una biologia filosofica*. Trad. Anna Patrucco Becchi. Torino: Einaudi, 1999.
- Jonas, Hans. The Imperative of Responsibility: In Search of an Ethics for the Technological Age. Chicago: Chicago University Press, 1984.
- Kuhn, Thomas. *The Structure of Scientific Revolutions*. Chicago: University of Chicago Press, 1962.
- Latour, Bruno. *Esperando a Gaia. Componer el mundo común mediante las artes y la política*, en *Cuadernos de Otra Parte*, http://www.bruno-latour.fr/sites/default/files/downloads/124-GAIA-SPEAP-SPANISHpdf.pdf.
- Latour, Bruno. Waiting for Gaia. Composing the Common World through Arts and Politics, a lecture at the French Institute, London, November

- 2011, http://www.bruno-latour.fr/sites/default/files/124-GAIA-LON-DON-SPEAP\_0.pdf.
- Leiss, William. Scienza e dominio. Il dominio della natura: storia di un'ideologia. Milano: Longanesi, 1976.
- Leiss, William. *The Domination of Nature*. New York: George Braziller Inc., 1972.
- Leopold, Aldo. A Sand County Almanac, with Other Essays on Conservation from Round River. New York-Oxford: Oxford University Press, 1949.
- Leopold, Aldo. *Almanacco di un mondo semplice*. Trad. it. di Giovanni Arca e Mario Maglietti, Como: Red Edizioni, 1997.
- Livorsi, Franco. Il mito della nuova terra. Cultura, idee e problemi dell'ambientalismo. Milano: Giuffrè, 2000.
- Machado Aráoz, Horacio. "Sobre la naturaleza realmente existente, la entidad América y los orígenes del capitaloceno. Dilemas y desafíos de especie," *Actuel Marx/Intervenciones*, n° 20 (2016): 205-30.
- Malm, Andreas. "The Anthropocene Myth. Blaming All of Humanity for Climate Change Lets Capitalism Off the Hook," *Jacobin*, 30 de marzo 2015. Disponible en línea: https://www.jacobinmag.com/2015/03/anthropocene-capitalism-climate-change/>. URL accessed on 06 November 2022.
- Mancarella, Marco. *Il diritto dell'umanità all'ambiente. Prospettive etiche, politiche e giuridiche.* Milano: Giuffrè, 2004.
- Mela, Alfredo, Maria Carmen Belloni and Luca Davico L. *Sociologia dell'ambiente*. Roma: Carrocci, 2003.
- Merchant, Carolyn. *The Death of Nature*, in *Environmental Philosophy:* From Animal Rights to Radical Ecology. Edited by Michael Zimmerman et al. Englewood Cliffs, New Jersey: Prentice-Hall, 1993.
- Moltmann, Jürgen. "Diritti umani, diritti dell'umanità e diritti della natura." *Concilium. Rivista internazionale di teologia*, no. 2 (1990): 145-61.
- Naess, Ame. "A Defense of the Deep Ecology Movement," *Environmental Ethics*, no. 6 (1984): 265-70. https://doi.org/10.5840/enviroethics19846330
- Naess, Ame. "The Shallow and the Deep, Long-range Ecology Movement: A Summary," *Inquiry*, no. 16 (1973): 95-100.
- Naess, Ame. Ecosofia. Trad. di Elena Recchia. Como: RED, 1994.
- Nakano-Okuno, Mariko. Sidgwick and Kant: On the So-Called 'Discrepancies' between Utilitarian and Kantian Ethics. In Conference Proceedings of the Second International Conference on "Henry Sidgwick. Etica, Psichica, Politica", Università di Catania, 2009-2010.
- Nicoletti, Giuseppe M. *Politiche e strumenti per il turismo sostenibile*. Napoli: Edizioni Scientifiche Italiane, 2004.
- Norman, Richard. *Moral Philosophers*. Oxford: Oxford University Press, 1998.

- Norton, Bryan G. *Toward Unity Among Environmentalists*. New York-Oxford: Oxford University Press, 1991.
- Norton, Bryan G. Why Preserve Natural Variety? Princeton: Princeton University Press, 1991.
- O'Connor, James. L'ecomarxismo. Introduzione a una teoria. Roma: Datanews, 1994.
- O'Connor, James. *Causas naturales: ensayos de marxismo ecológico*. Madrid: Siglo XXI, 2001.
- Ost, François. "Le milieu, un objet hybride qui déjoue la distinction publicprivé," In *Public/Privé*, Centre universitaire de recherches administratives et politiques de Picardie. Paris: PUF, 1995: 97-107.
- Ost, François. La nature hors la loi. L'écologie à l'épreuve du droit. Paris: La Découverte, 2003.
- Ost, François. The Philosophical Foundation of Environmental Law: An Excursion beyond Descartes. Law, Technology and the Environment: A Challenge to the Great Dichotomies in Western Rationality. http://www.dhdi.free.fr/recherches/environnement/articles/ostenvlaw.pdf. URL accessed on 06 November 2022.
- Parsons, Howard L. *Marx and Engels on Ecology*. Westport: Greenwood, 1977. Passmore, John. *The Perfectibility of Man*, London: Duckworth, 1970.
- Passmore, John. Man's Responsibility for Nature: Ecological Problems and Western Traditions. London: Duckworth, 1974.
- Passmore, John. *La nostra responsabilità per la natura*. Milano: Feltrinelli, 1986.
- Pellegrino, Gianfranco and Marcello Di Paola, *Nell'Antropocene*. *Etica e politica alla fine di un mondo*. Roma: Derive e Approdi, 2018.
- Pinna, Sergio. La protezione dell'ambiente. Milano: FrancoAngeli, 1995.
- Rawls, John. *Una teoria della giustizia*. Trad. it. di Ugo Santini. A cura di Sebastiano Maffettone. Milano: Feltrinelli, 2002.
- Regan, Tom and Peter Singer. *Animal Rights and Human Obligations*. Englewood Cliffs, New Jersey: Prentice-Hall, 1976.
- Regan, Tom. All That Dwell Therein: Animal Rights and Environmental Ethics. Berkley: University of California Press, 1982.
- Regan, Tom. *The Case for Animal Rights*. Berkley: University of California Press, 1983.
- Regan, Tom. *Earthbound: New Introductory Essays in Environmental Ethics.* Philadelphia: Temple University Press, 1984.
- Revkin, Andrew. *Global Warming: Understanding the Forecast.* New York: Abbeville Press, 1992.
- Salt, Henry S. Animal Rights. Fontwell: Centaur, 1980.
- Shantser, Virgil. *The Anthropogenic System (Period)*. In *Great Soviet Encyclopedia*, Vol. II: New York: Macmillan, 1973.

- Shrader-Frechette, Kristin. "Frontier or Cowboy Ethics' and 'Lifeboat Ethics." In *Environmental Ethics*. Edited by K. Shrader-Frechette: 31-44. Pacific Grove: The Boxwood Press, 1981.
- Singer, Peter. Animal Liberation: A New Ethics for Our Treatment of Animals. New York: HarperCollins, 1975.
- Singer, Peter. *Practical Ethics*. New York: Cambridge University Press, 1979. Singer, Peter. *The Expanding Circle: Ethics and Sociobiology*, New York: Farrar, Strass & Giroux, 1981.
- Singer, Peter. In Defense of Animals. Oxford: Blackwell, 1985.
- Stone, Christopher D. Earth and Other Ethics: The Case for Moral Pluralism. New York: Harper & Row, 1987.
- Svampa, Maristella. *Antropoceno. Lecturas globales desde el sur.* Córdoba: Colección Costureras de La Sofía cartonera, 2019.
- Tallacchini, Mariachiara. *Diritto per la natura. Ecologia e filosofia del diritto*. Torino: Giappichelli Editore, 1996.
- Taylor, Paul W. Respect for Nature: A Theory of Environmental Ethics. Princeton: Princeton University Press, 1986. https://doi.org/10.2307/j.ctt7sk1j Ubertini Carlo. "Ecosocialismo," MondOperaio, (2001): 4-27.
- Ulloa, Astrid. "Dinámicas ambientales y extractivas en el siglo XXI: ¿es la época del Antropoceno o del Capitaloceno en Latinoamérica?" *Desacatos* 54, (2017): 58-73.
- Velasco Sesma, Angelica. "Ética del cuidado para la superación del androcentrismo: hacia una ética y una política ecofeministas," *Revista iberoamericana de ciencia tecnología y sociedad*, 11, 31 (2016): 171-93. http://www.scielo.org.ar/scielo.php?script=sci\_arttext&pid=S1850-00132016000100010&lng=es&tlng=es, accessed 19 June 2022.
- Viveiros de Castro, Eduardo and Deborah Danowsky. "L'arret du monde." In *L'univers clos au monde infini*. Ed. par Emilie Hache: 221-340. Paris: Editions Dehors, 2014.
- Warren, Karen. "El poder y la promesa de un Feminismo ecológico." In *Ecología y feminism*. Ed. por María Xosé Agra. Trad. Carme Adán Villamartín: 117-46. Granada: Comares, 1997.
- White Jr., Lynn. "The Historical Roots of Our Ecological Crisis," Science, vol. 155, no. 3767, 10 March (1967): 1203-7.
- Zylinska, Joanna. *Minimal Ethics for the Anthropocene*. Ann Arbor: University of Michigan Library, 2014. First edition published by Open Humanities Press 2014, http://dx.doi.org/10.3998/ohp.12917741.0001.001.