

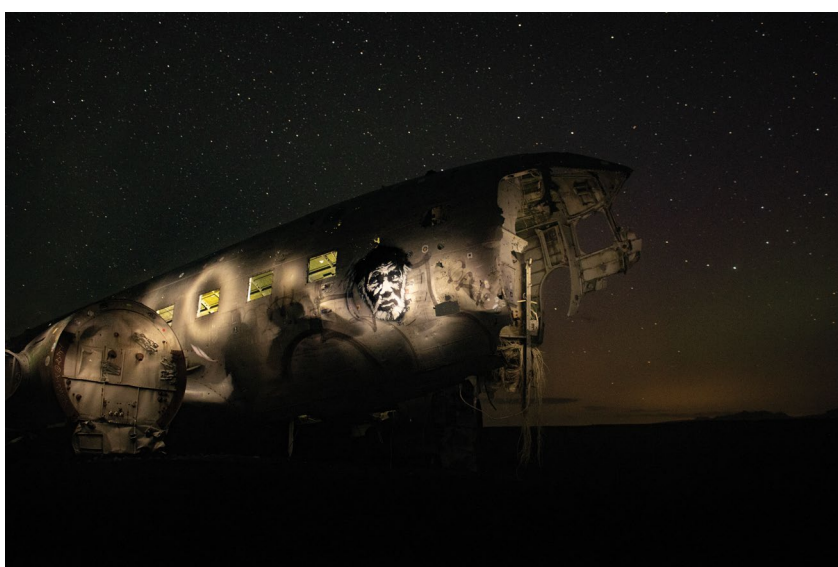
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**RESILIENT LIFE. SOME ETHICAL CONSIDERATIONS ON THE RELATION BETWEEN BIODIVERSITY AND HUMAN NATURE**

1. *The environmental side of ecology: Wilson and the critique of (in)difference*
2. *The mental side of ecology: Nietzsche and the critique of anthropocentrism*
3. *The social side of ecology: Gorz and the critique of capitalism*

**ABSTRACT: RESILIENT LIFE. SOME ETHICAL CONSIDERATIONS ON THE RELATION BETWEEN BIODIVERSITY AND HUMAN NATURE**

The article is divided into three sections that represent three different focuses on ecology. The first one reconstructs, through Wilson's work, how biodiversity emerged and became essential within environmental studies. The second one uses Nietzsche's critique of anthropocentrism to depower human's claimed centrality on Earth. The last one addresses Gorz's critique of capitalism to show that ecology can be effective only if it becomes a radical critique of our system of production



*L'écologie sera avant tout mentale et sociale ou ne sera rien*  
Félix Guattari

### **1. The environmental side of ecology: Wilson and the critique of (in)difference**

Biodiversity is a multifaceted concept that has been defined in many ways. As early as 1996, DeLong listed «85 definitions of biodiversity»<sup>1</sup> which is quite surprising considering that the word biodiversity appeared only ten years earlier during the homonymous forum organized under the auspices of the National Academy of

<sup>1</sup> D.C. DeLong, *Defining Biodiversity*, in «Wildlife Society Bulletin», XXIV, 4, 1996, p. 739.

Sciences and the Smithsonian Institution. According to Sarkar, the first to use the term was Walter G. Rosen as a shorthand for “biological diversity”<sup>2</sup>. Nevertheless, it is not Rosen who has gone down in history as its father but Edward Osborne Wilson who published the proceedings with the title *Biodiversity*<sup>3</sup>.

Beyond the authorship of the concept, it is interesting that, within a few years, biodiversity becomes the subject of many academic discussions trying to adjust, increment, and perfect, its content<sup>4</sup>. This is the reason why it is hard to find a definition that can alone condense all the nuances that have appeared over the years. However, we can outline a bare minimum field on which virtually all definitions converge: biodiversity is the *richness of difference* where difference can be specified as «the variety of organisms considered at all levels, from genetic variants belonging to the same species through arrays of species to arrays of genera, families, and still higher taxonomic levels; includes the variety of ecosystems, which comprise both the communities of organisms within particular habitats and the physical conditions under which they live»<sup>5</sup>. Nevertheless, we should not assume that biodiversity is the simple addition of differences. Biodiversity is in fact the resulting *balance* of their relation, a relation that, to be more precise, lies on three levels of difference: biological diversity within a species, among different species, and across ecosystems.

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<sup>2</sup> S. Sarkar, *Defining “Biodiversity”; Assessing Biodiversity*, in «The Monist», LXXXV, 1, 2002, pp. 131-155.

<sup>3</sup> E.O. Wilson, (ed.), *Biodiversity*, National Academies Press, Washington D.C. 1988.

<sup>4</sup> To understand the extent of this change, consider that, «in 1988, biodiversity did not appear as a keyword in *Biological Abstracts*, and *biological diversity* appeared once; in 1993, biodiversity appeared 72 times, and biological diversity 19 times» (D. Takacs, *The Idea of Biodiversity: Philosophies of Paradise*, Johns Hopkins Press, Baltimore 1996, p. 39). In a few years, biodiversity not only become the subject of scientific articles but the specific focus of four scientific journals expressly dedicated to the subject: “Canadian Biodiversity”, appeared in 1991; a second, “Tropical Biodiversity”, appeared in 1992; “Biodiversity Letters and Global Biodiversity” followed in 1993 (S. Sarkar, *op. cit.*, p. 132).

<sup>5</sup> E.O. Wilson, *The Diversity of Life*, Penguin Books, London 2001, p. 682.

Biodiversity can therefore be thought of as the exuberance and richness with which life propagates its constitutive *difference* in harmony with the Earth. If nature “works”, it is precisely because is able to harmonize its variety in a process that is not dialectical but immanent to life itself. As Coccia properly underlines «life is always its own environment and, because of this, it circulates from body to body, from subject to subject, from place to place»<sup>6</sup>, without denying the difference it permeates. «Between the elements of the same world there is a complicity and an intimacy that go much deeper than those produced by physical contiguity; what is more, this attachment is not identical with an amalgam or with the reduction of the variety of substances, colors, forms, or species to a monolithic unity. If things form a world, it is because they mix without losing their identity»<sup>7</sup>, their irreducible difference.

With the concept of biodiversity, understanding and protecting the delicate balance of difference(s) becomes the theoretical focus of environmental studies. But to understand the value of the term, also in its political dimension, it is important to retrace the steps that made it possible to move from a scientific to a sociopolitical level. The event that established “Conservation Biology” as a new research field was *The First International Conference on Research in Conservation Biology* held at the University of California in 1978. The conference, organized by a group of leading researchers interested in tropical deforestation and endangered species, sought to unite ecological theory with conservation policy. The publication of the conference proceedings and Michael E. Soulé’s “manifesto” titled *What Is Conservation Biology?* in one of the most influential scientific journals of the time gave high visibility to the new interdisciplinary discipline,

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<sup>6</sup> E. Coccia, *The Life of Plants. A Metaphysics of Mixture*, Polity Press, Cambridge 2019, p. 39.

<sup>7</sup> *Ibid.*, p. 42.

which was sociologically institutionalized in a few years with the founding of the *U.S. Society for Conservation Biology* (1985). As Sarkar points out, it is in this context that, during the following year's forum on biodiversity, «a sociologically synergistic interaction between the use of “biodiversity” and the growth of conservation biology as a discipline occurred and it led to the re-configuration of environmental studies that we see today: biodiversity conservation has emerged as the central focus of environmental concern»<sup>8</sup>.

Thanks to the forum, biodiversity emerged from the strict meshes of academic specialism and became a subject of public attention to the point of achieving important results in environmental protection. In terms of media impact and policy-making the most notable was certainly the *United Nations Conference on Environment and Development* (UNCED), best known as *The Earth Summit* or *Rio de Janeiro Conference*, where 154 states signed the *Convention on Biological Diversity* (CBD) with which they committed to the conservation of biological diversity, in a sustainable use of its components and a fair sharing of the benefits<sup>9</sup>.

Within the diverse and complex world of ecology, the work begun at the forum and carried out by important figures such as Wilson allowed biodiversity to emerge in its twofold and intertwined version: as a scientific concern focused on the *differences* within a species, among different species, and across ecosystems, and as a tool for a political critique against the *indifference* toward the environment.

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<sup>8</sup> S. Sarkar, *op. cit.*, p. 131.

<sup>9</sup> See the first article of the *Convention on Biological Diversity* (CBD): “objectives” available online at <https://www.cbd.int/convention/articles/default.shtml?a=cbd-01> (November, 4<sup>th</sup> 2024).

## 2. *The mental side of ecology: Nietzsche and the critique of anthropocentrism*

Although a certain awareness of biodiversity has spread over the years, reaching different segments of society and implementing policies aimed at protecting the environment, it seems that human beings remain reluctant to notice the differences proper to plants and to acknowledge their importance to the biosphere. As Jose underlines, although plants «make up around 80% of all biomass on Earth, play important roles in almost all ecosystems, and support humans and other animals by providing shelter, oxygen, and food, [...] people have a tendency to overlook plants»<sup>10</sup>. Given the importance on this subject, two botanists suggest to call this phenomenon *Plant Blindness* and «launched a national campaign to increase public understanding of plants»<sup>11</sup> in 1999.

Recently, the University of Florence's "Percepisco" project showed that *Plant Blindness* is still a problem. The project coordinated by Andrea Coppi and Matteo Galletti aimed to evaluate from an empirical point of view the effect that urban green spaces characterized by a different level of plant diversity have on people's well-being. To show this correlation, the research unit adopted an interdisciplinary approach that combined philosophical investigation on well-being and quality of life with computer science and botanical/environmental research. The results of the analysis showed a strong correlation between well-being (in the form of aesthetic contemplation and/or "activating/relaxing" pleasure) and urban green spaces characterized by a different level of plant diversity, but also showed that biodiversity is not perceived. Although, from the sentiment analysis of biodiverse parks online reviews, it was evident that parks aesthetic perception induces positive psychological reactions that move from

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<sup>10</sup> S.B. Jose, C-H. Wu, S. Kamoun, *Overcoming plant blindness in science, education, and society*, in «Plants, People, Planet», I, 2019, pp. 169-172.

<sup>11</sup> J.H. Wandersee, E.E. Schussler, *Preventing plant blindness*, in «The American Biology Teacher», LXI, 2, 1999, pp. 82-86.

the contemplation of the surrounding beauty to a deep drive to immerse themselves in the surrounding landscape, it has been impossible to detect in a sufficient range of linguistic descriptors and/or explicit references the perception of biodiversity.

Even if users perceived the well-being that, in various forms, they experience in the surrounding area, they fail to conceptualize its biodiverse nature, or at least they do not manifest it on a linguistic-conscious level. Wanting to speculate on this evidence, but not going that far from the empirical content, it is possible to say that their body *sensed* something that their consciousness could not properly grasp, thus confirming the insight that Nietzsche put into Zarathustra's mouth when he states that the body is a "great reason," much deeper than consciousness:

Body am I through and through, and nothing besides; and soul is just a word for something on the body.

The body is a great reason, a multiplicity with one sense, a war and a peace, one herd and one shepherd.

Your small reason, what you call "spirit" is also a tool of your body, my brother, a small work- and plaything of your great reason.

"I" you say and are proud of this word. But what is greater is that in which you do not want to believe - your body and its great reason. It does not say I, but *does* I.

What the sense feels, what the spirit knows, in itself that will never have an end. But sense and spirit would like to persuade you that they are the end of all things: so vain are they.

Work - and plaything are sense and spirit, behind them still lies the self. The self also seeks with the eyes of the senses, it listens also with the ears of the spirit.

Always the self listens and seeks: it compares, compels, conquers, destroys. It rules and is also the ruler of the ego.

Behind your thoughts and feelings, my brother, stands a powerful commander, an unknown wise man - he is called self. He lives in your body, he is your body.

There is more reason in your body than in your best wisdom<sup>12</sup>

Conscious perception, Nietzsche tells us, is nothing but an instrument of the body. Consciousness itself is just one expression, the most ephemeral and vain, of the great plurality of

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<sup>12</sup> F. Nietzsche, *Thus Spoke Zarathustra. A Book for ALL and None* (1883), transl. by A. Del Caro, ed. by A. Del Caro and R. B. Pippin, Cambridge University Press, Cambridge 2006, p. 23.

voices that inhabited the body. If we give so much importance to consciousness, it is because it appears to be the most familiar ground. Except for some experiences, which, not surprisingly, are called pathological or at least neurotic, the relationship with our consciousness is solid. But our body – that stranger we inhabit – claims its share of existence, and no matter how uncanny and incomprehensible it may seem to us, that existence is our own. These considerations find a place not only in Nietzsche's thought but also in the phenomenological reflection that, through the distinction between *Leib* and *Körper*, showed all its philosophical meaningfulness<sup>13</sup>. But there is no need to delve inside complex speculations. It is enough for us to observe our own experience to understand it. Indeed, it is simply by observing physical or mental fatigue that we understand the distance between us and our body, between what we want and what it wants. My willingness to run for 10 kilometers does not imply that I can. In this case, however, I am aware of the distance between me and my body. But there are experiences, such as illness, where this kind of awareness escapes consciousness. In the case of Hepatitis A (HAV), for example, the course of the disease can be symptomatic or asymptomatic. In the second case, there are no signs capable of attracting the attention of consciousness but this does not mean that the virus has also eluded the body. Unlike consciousness, the body immediately sensed the attack and began to defend itself. Only a clinical examination will reveal to the patient's consciousness that years earlier he contracted the hepatitis A virus. Although his conscience never realized it, a struggle to death was fought, and the body holds its indelible memory in the form of anti-HAV antibodies.

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<sup>13</sup> In this context it is impossible to avoid quoting Merleau-Ponty's *Phenomenology of Perception* (1945). For a recent and in-depth study of the topic, see the important work edited by P. Amodio and A. Scotti, *Merleau-Ponty: ritornare alla percezione*, Federico II University Press, Napoli 2022.



Who knows whether, in suggesting that there is more reason in the body than in our best wisdom, Nietzsche had sensed how the body could feel harmony with the environment in a way that is precluded from consciousness. Certainly, already in his early writings, and particularly in *Über Wahrheit und Lüge im aussermoralischen Sinne*, the philosopher pointed out how limitlessly naive is any outlook that, focusing exclusively on consciousness, makes it the pinnacle of human experience on Earth and *therefore* the center of the universe:

For this intellect has no further mission leading beyond human life. It is human and only its owner and creator treats it as solemnly as if the hinges of the world turned on it. But if we could communicate with a gnat we would hear that it swims through the air with the same solemnity and also feels as if the flying centre of this world were within it.<sup>14</sup>

In these beautiful lines, Nietzsche clearly criticizes the anthropocentric perspective according to which human beings are the center around which the whole of nature is expected to revolve. From a more general perspective, they are indeed nothing but *one* component of nature. And no matter how refined humans believe their intellect to be, there is no ontological difference between a man and a gnat. Both perceive their own flight as the only one that matters. Both try to bend the world to their own needs. The problem is that between the two, it is certainly not the gnat that led to the geological epoch that goes by the name of the Anthropocene<sup>15</sup>, in which the predatory attitudes of human

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<sup>14</sup> F. Nietzsche, *On Truth and Lie in an Extra-Moral Sense (1873)*, in *Writings from the Early Notebooks*, transl. by L. Löb, ed. by R. Geuss and A. Nehamas, Cambridge University Press, Cambridge 2010, p. 253.

<sup>15</sup> Since its appearance, the term Anthropocene has undergone major developments, criticisms, and insights that have altered its temporal extension by pointing out different aspects of human's impact on nature. In this sense, terms have been coined such as "Capitalocene," which emphasizes the influence of capitalism on the ecological crisis (J.W. Moore, *Anthropocene or Capitalocene? Nature, History, and the Crisis of Capitalism*, PM Press, Oakland 2016), "Plantationocene," which highlights the historical legacy of slavery and colonial plantations (D.J. Haraway, A. Tsing, *Reflections on the Plantationocene. A conversation with Donna Haraway & Anna Tsing moderated by Gregg Mitman*, ed. by A. Hopes and L. Perry, Edge Effects Magazine with support from the Center for Culture, History, and Environment in the Nelson Institute



beings have depredated nature by plundering its resources, polluting soils and devastating the ecosystems.

In this sense, it is clear that the protection of the natural environment cannot be based only on anthropological considerations, but must focus on preserving the balance between species and ecosystems inherent to biodiversity. It is, therefore, necessary to stop confusing welfare with environmental exploitation and well-being with the reduction of the world to a space designed to meet the imperialistic needs of humankind. But in order to achieve this result, first we need to learn to think of humanity not as the culmination of nature, but as its most dangerous component. Only in this way is it possible to *step aside* to let the world flourish *with us*.

### **3. *The social side of ecology: Gorz and the critique of capitalism***

Nature is not a commodity of consumption although capitalism imposes lifestyles and thought patterns that go in the opposite direction. This is why a sophisticated thinker like Guattari pointed out that the ecological critique can be effective only if it becomes a radical critique of capitalism, or to be more precise, a critique of what he calls «*Integrated World Capitalism*» namely the post-industrial form of capitalism that «tends increasingly to decentralize its sites of power, moving away from the structures that produce goods and services toward the structures that produce signs, syntax and – in particular, through the control it exerts over the media, advertising, opinion polls, etc. – subjectivity»<sup>16</sup>. The problem for the philosopher is not only the exploitation of resources operated by multinational corporations but the fact that this mode of exploitation has

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at the University of Wisconsin-Madison 2019) and “Chthulucene,” which focuses on the coexistence of humans and nonhumans (D.J. Haraway, *Staying With the Trouble: Making Kin in the Chthulucene*, Duke University press, Durham and London 2016).

<sup>16</sup> F. Guattari, *The Three Ecologies*, transl. by I. Pindar and P. Sutton, Bloomsbury, London 2014, p. 31.

become the model of subjectification by which our everyday life is structured. Of course, multinational corporations make the most of all the needs that advertising and social media taught us to perceive as essential to our well-being, but we are the substance of their power, the armed wing with which capitalism depredates the planet.

The problem, as Gorz points out very well, is that capitalism does not merely exploit resources useful for the production of necessary goods but creates new needs useful only to increase itself:

Production has become first and foremost a *means* by which capital can grow; above all, production serves the 'needs' of capital, and it is only because capital needs consumers for its products that production also serves human needs. These needs, however, are no longer 'natural', spontaneously experienced needs or desires; they are needs and desires which have been *produced* to satisfy capital's need for profitability. Capital makes use of the needs it serves in order to promote its own growth, something which in turn calls for the growth of needs. Developed capitalism's model of consumption is thus the product of capital's own requirement to create the largest possible turnover of goods. The quest for maximum efficiency in the exploitation of capital therefore requires maximum inefficiency in the coverage of needs: maximum waste<sup>17</sup>.

Against capital logic whose object is "productive-economic-subjective"<sup>18</sup>, since it shapes the perception of our everyday life, Gorz proposes a «common norm of sufficiency»<sup>19</sup>, that is, the idea of a limit beyond which we would produce and consume too much, far more than we need. Without delving into a discussion of how to objectively measure the limits of what is necessary, it is clear that a regulatory model does not belong to economics nor the economic imagination although it is equally clear «that the dynamic of infinite "growth" brought about by capitalist expansion is threatening the natural foundations of human life on the planet»<sup>20</sup>.

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<sup>17</sup> A. Gorz, *Ecologica*, transl. by C. Turner, Seagull Books, London 2010, p. 63.

<sup>18</sup> F. Guattari, *op. cit.*, p. 32.

<sup>19</sup> A. Gorz, *op. cit.*, p. 65.

<sup>20</sup> M. Löwy, *Ecosocialism. A Radical Alternative to Capitalist Catastrophe*, transl. by Canepa, Haymarket Books, Chicago 2015, p. 10.

As Gorz suggests in a 2005 interview entitled *Richesse sans valeur, valeur sans richesse*, the capitalist logic behind most decisions that are made globally promotes the idea of growth as an unquestioned, ultimate goal, without defining what that growth is meant to achieve or how it should benefit society. The problem is that governments focus is not on the real substance of growth but on the rise in GDP, namely the increased flow of money, and the volume of goods and services exchanged within a year, regardless of their real impact on people. Growth is just an abstract ideal, a number to chase, a metric to improve, without any real consideration for its content or the quality of the changes it brings. The assumption that an expanding economy automatically leads to a better society is misleading. There's no guarantee that an increase in GDP translates to greater access to the things people need most, like food, healthcare, housing, or education. Gorz also gives two examples to explain it.

With the first one, the philosopher imagines a village in which the joint work of a few people made it possible to dig a well. Everyone can use it; the water becomes a common good and the well a source of wealth for all. In this case, there is no money transition and therefore the dig does not increase GDP. But if the well is dug by a private investor who demands money from the population to extract the water, then it increases GDP. With the second example, he imagines giving uncultivated land to 100,000 landless families who will take care of it and farm it for their livelihood. In this case, again, the process will not increase GDP although it does produce subsistence for the farmers. But if 100 landowners exploit the labor of 100,000 peasant families by paying them a minimum wage and exporting the product of the land, then the GDP will increase significantly. Thought in terms of GDP, growth only serves the accumulation of capital in the hands of a few and creates even more social inequality. A constant growth to

be achieved at the expense of people and the environment in which they live is the “systemic necessity” of capitalism that is totally indifferent to the concrete reality it exploits. In this sense, Gorz defines the myth of growth as the veritable trap (piège) by which neoliberal modernization has penetrated consciences and from which we need to free ourselves in order to cultivate a “*décroissance productive*”<sup>21</sup> for people and not for governments and corporations greenwashing.

As Fadini has rightly pointed out, reflections such as Guattari’s or Gorz’s help us understand that ecology can be a political tool only if «it is linked to a radical critique of *our* system of production»<sup>22</sup>. Ecology loses in fact all of its ethical value and political effectiveness if we do not understand that planet’s devastation is due to a system of exploitation that capitalism has crystallized in our consciences, and of which we must free ourselves if we want to gain an ecological space that is not only environmental but sociological and mental.

Certainly, in this way we have not overcome the anthropocentric perspective indicated by Nietzsche. Going back to the metaphor we used, what does it mean to “step aside” if not to show the other side of anthropocentrism? Is it not precisely the danger related to the environmental catastrophe that pushed us to think ecologically? Whether we squeeze the Earth to the last drop to extract what we believe to be our own well-being or attempt to protect the environment from our threat, it seems we are unable to step outside the circle of our own humanity. But even if we are condemned to an always *too human* perspective, we cannot deny that an anthropocentrism that makes space for a gnat and its irreducible difference, or a plant that we are not even able to see, is better than an anthropocentrism that erases any kind of difference driven solely by a spasmodic capitalist exploitative

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<sup>21</sup> A. Gorz, *op. cit.*

<sup>22</sup> U. Fadini, *Divenire umani. Per una nuova antropologia filosofica*, McGraw-Hill Milano, p. 25. My translation of the quoted parts.

drive. If we want to live in harmony with the environment and the balance biodiversity represents, we need to stop pursuing policies that, hidden behind the label of “sustainable economics”, perpetrate the same mechanism of exploitation. As Timothy Morton suggests, discourses on sustainability are *de facto* products of corporations’ language trying to develop strategies useful to save their profits<sup>23</sup>. This is the reason why

“green capitalism”, “carbon markets”, “compensation mechanisms” and other manipulations of the so-called “sustainable market economy” have proven perfectly useless, while “greening” with a vengeance, emissions are skyrocketing, and catastrophe gets closer and closer. There is no solution to the ecological crisis within the framework of capitalism, a system entirely devoted to productivism, consumerism, the ferocious struggle for “market shares”, to capital accumulation and maximizing profits. Its intrinsically perverse logic inevitably leads to the disruption of ecological balance and destructions of ecosystems.<sup>24</sup>

The hope we have left - with all the philosophical weight that this word means - is that «the exit of capitalism has *already begun*» since «*negative growth is imperative for our survival*». But as Gorz states, this «presupposes a different economy, a different lifestyle, a different civilization, and different social relations»<sup>25</sup>. For this reason, we need to abandon policies that are nothing but the figure of the false consciousness with which we continue to exploit and pollute the environment, destroying its delicate balance. What we really need, if we want to end the destruction of the planet, is to find a *radical alternative* to the capitalist system of exploitation by which we place what we believe is our needs above everything else. And even if this may not seem, in the end, a disinterested choice since it is *still* a

<sup>23</sup> T. Morton, *What are we sustaining?*, Lecture at La Buona Planta, Milan, September 29<sup>th</sup> 2018.

<sup>24</sup> M. Löwy, *Thirteen theses on the imminent ecological catastrophe*, in «Workers' Voice/La Voz de los Trabajadores · A fusion of Socialist Resurgence and Workers' Voice» <https://workersvoiceus.org/2020/02/21/thirteen-theses-on-the-imminent-ecological-catastrophe/> (November, 4<sup>th</sup> 2024).

<sup>25</sup> A. Gorz, *The exit of capitalism has already begun*, in «Cultural Politics», VI, 1, p. 8. Italic mine.

human perspective - we can be confident it is the most ethical one.

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