

# Ecosophy at the End of Nature

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## 1) INTRODUCTION: THE BEGINNING AND THE END

Arne Naess's and Bruno Latour's ecological works are separated by a time span of almost thirty years. When *Ecology, Community and Lifestyle*<sup>1</sup> was published in its English version in 1989, it appeared mostly as the systematization of the philosophical background underlying Naess's intuition of a deep ecology. Introduced in 1973,<sup>2</sup> deep ecology had already been the protagonist in twenty years of debates in the field of environmental philosophy.

Naess's proposal was one of the first that framed our environmental issues in terms of reinterpretation of our worldview and the role of humanity in it. This approach has been typically explored in differing ways by the so called "radical ecology" traditions of deep ecology, ecofeminism, social ecology, as well as by more recent emerging reflections, e.g.: eco-phenomenology,<sup>3</sup> environmental hermeneutics,<sup>4</sup> or the posthuman<sup>5</sup>.

"A rethinking of both the meaning of humanity and the meaning of nature in which normative and ontological issues are at stake"<sup>6</sup> outlines a broad field of differing (and often clashing) strategies that typically distinguishes itself from the tradition of ethical approaches. Environmental ethics, in general, presents itself as a field of applied ethics, through the work of a still growing number of philosophers and interdisciplinary thinkers who, since the 1970s, have been inquiring into the values that should regulate human conduct, not just within the human community, but also toward nature.<sup>7</sup> While ethical approaches generally attempt to extend a universal moral principle to a wider range of moral patients outside the human,<sup>8</sup> those thinkers who adopt the former strategies discuss the limits and understanding of the human and the natural. We can say they agree on the idea that Plumwood expressed so well: "it is not just a question of improving the status of nature, moral or otherwise, while everything else remains the same, but of reexamining

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<sup>1</sup> Arne Naess, *Ecology, Community and Lifestyle*, ed. David Rothenberg (Cambridge: Cambridge University Press, 1989).

<sup>2</sup> Arne Naess, "The Shallow and the Deep, Long-Range Ecology Movement. A Summary," *Inquiry* 16, no. 1 (1973): 95-100.

<sup>3</sup> Cf. Charles S. Brown and Ted Toadvine, *Eco-Phenomenology: Back to the Earth Itself* (Albany: SUNY Press, 2003)

<sup>4</sup> Cf. Forrest Clingerman, et al., *Interpreting Nature: The Emerging Field of Environmental Hermeneutics* (New York: Fordham University Press, 2014).

<sup>5</sup> Cf. the journal *Aut Aut*, 361 (2014), issue dedicated to "La condizione postumana".

<sup>6</sup> Brown and Toadvine, *Eco-Phenomenology*, 4.

<sup>7</sup> See Angelika Krebs, *Ethics of Nature: A Map* (Berlin - New York: Walter de Gruyter, 1999), 2-3.

<sup>8</sup> See for example Plumwood's analysis of biocentrism and animal rights. Val Plumwood, "Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism," *Hypatia* 6, no. 1 Special Issue: Ecological Feminism (1991): 3-27.

and reconceptualizing the concept of the human, and also the concept of the contrasting class of nature.”<sup>9</sup>

Naess’s work acknowledged environmental ethics and, as a matter of fact, dialogued with it in the very act of departing from it. He suggested that environmental issues do not spring from conflicts of moral norms, but from “differences in experiencing what is *real*.”<sup>10</sup> As a result, we should shift our “focus on environmental ontology, on how you see the world.”<sup>11</sup> In other words, we should focus on our ontological frameworks, in particular those that understand mankind as something simply “placed in an environment”<sup>12</sup> by way of non-constitutive relations.

Bruno Latour’s *Politics of Nature*<sup>13</sup> also belongs in this broad field of inquiry, which tries to reassess our concepts of humanity, nature, and their relationship. It develops one of the most sophisticated perspectives on its problems and potentials. Latour’s “political ecology” is defined as the progressive constitution of the collective of humans and nonhumans in a “good common world”. The composition of the common world is only possible through the abandonment of the metaphysics of nature, while reopening the problem through the political practice of “experimental metaphysics.”<sup>14</sup> “Metaphysics of nature” is used by Latour as a “deliberately paradoxical expression” (metaphysics is obviously what goes beyond the realm of *physis, nature*). With the expression, Latour wants to stress how our concept of nature pins down a “traditional solution” to the question: “what is our common world?” by cutting short the discussion and thus entrusting nature with an a-critical political role. The metaphysics of nature distribute *a priori* primary and secondary qualities.<sup>15</sup> In other words, it defines the axiomatic opposition between the human and the natural that streams through all discourses on nature, whether endorsing difference or continuity.<sup>16</sup> The opposition runs along the line separating the realms of an independent external reality/order (physical, biological, universal and determining) and the conventions of the human cultural/social life. It is obviously ethnocentrically and historically biased, for example, within the Scientific worldview developed in the modern West, leaving behind all kinds of excluded entities: civilizations, races, gender roles, sexual preferences, feelings, nonhuman living beings, among others.<sup>17</sup> As Latour argued already in *We Have Never Been*

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<sup>9</sup> Plumwood, “Nature, Self, and Gender,” 17.

<sup>10</sup> Arne Naess, “The World of Concrete Contents,” *Inquiry* 28, no. 4 (1985): 423; emphasis in the original.

<sup>11</sup> Andrew Light, “Deep Socialism? An Interview with Arne Naess,” *Capitalism, Nature, Socialism* 8 (1997): 84.

<sup>12</sup> Naess, “Concrete Contents,” 424.

<sup>13</sup> Bruno Latour, *Politics of Nature: How to Bring the Sciences into Democracy*, trans. Catherine Porter. (Cambridge-London: Harvard University Press, 2004).

<sup>14</sup> Latour, *Politics of Nature*, 128-129.

<sup>15</sup> *Ibid.*, 242-242.

<sup>16</sup> See Kate Soper, *What is Nature? Culture, Politics and the Nonhuman*, (Oxford-Malden: Blackwell Publishers Inc., 2004), 38.

<sup>17</sup> Cf. *ibid.*, 61-70.

*Modern*,<sup>18</sup> from an ecological point of view, the price we are paying for not reopening the question of the collective of humans and nonhumans, or the collective of natures-cultures, is the overwhelming and uncontrolled proliferation of hybrids of nature and culture, such as, for example, climate change or ozone depletion. Are they natural or man made? "If we do not change the common dwelling, we shall not absorb in it the other cultures that we can no longer dominate, and we shall be forever incapable of accommodating in it the environment that we can no longer control."<sup>19</sup>

Although Naess and other deep ecologists argued that a plurality of metaphysics can support the deep ecology platform,<sup>20</sup> Latour's problematization of the metaphysics of nature could not be further from being included in this pluralism. In Latour's framework, pluralism is to be loathed as a cheap epistemological way out of the ethnocentric and imperialistic dualism of subjects and objects, a condescending kind tolerance "obtained at the price of relinquishing any requirement of reality."<sup>21</sup> The reason for this rejection lies in the fact that pluralism, framed by Latour in terms of "multiculturalism", is the subjective byproduct of the "mononaturalism" he is trying to dismiss: the commandment of one, transcendent nature common to all, accessed exclusively by the "universal Science," as opposed to the different opinions and habits people relativistically develop about it.

It is, indeed, through the renowned idea of the "end of nature" that Latour engages with the ecological movements, including Naess's ecosophy. Naess is taken by Latour as the model of that kind of reference to nature and its protection, that not only crumbles down out of its confusion and ambiguity, but most fatally prevents the ecological movements from accomplishing their goals and understanding their practices.

With this said, although Latour rejects deep ecology completely and Naess's ecosophy with it for important political reasons, I will argue that the analysis of Latour's criticism of Naess is worth the effort. First of all, Latour exposes the most entrenched difficulties in Naess's ecosophy. Letting these ambiguities explode offers a philosophical clarification of the problems we face within environmental ontology, and the range and difficulties of relationism in environmental philosophy. Second, I will argue that precisely in these ambiguities lies Naess's fecundity and, maybe, the possibility for ecosophy to rephrase its tenets today. I will also argue that, in the end, we can find one residual problem in Naess, namely that of "wisdom" contained in "ecosophy." Latour is not interested in this problem and Naess can still offer a contemporary perspective on the open question. I am interested in exploring the critical or deconstructive part in both ecological proposals, while the positive strategy offered by the authors (self-realization and identification in

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<sup>18</sup> Bruno Latour, *We Have Never Been Modern*, trans. Catherine Porter (London: Harvester Wheatsheaf, 1993).

<sup>19</sup> *Ibid.*, 145.

<sup>20</sup> Arne Naess, "The Apron Diagram," in *The Deep Ecology Movement: An Introductory Anthology*, ed. Alan Drengson and Yuichi Inoue (Berkeley: North Atlantic Books, 1995), 10-12.

<sup>21</sup> Isabelle Stengers quoted in Latour, *Politics of Nature*, 283 n36.

Naess; the protocol for a new good common world constitution in Latour) will be mentioned only marginally.

## 2) COMING TO GRIPS WITH THE END OF NATURE

### *i. Objectivity*

Latour's exposition of "The End of Nature" begins with an attack on what he calls "the popularized version of deep ecology."<sup>22</sup> He distances himself from it, while providing the fundamental reasons for his rejection, namely the concept of objectivity, that of politics and the problem of anthropocentrism, as shown in this kernel of insight below:

[...] a movement with vague contours that claims to be reforming the politics of humans in the name of the 'higher equilibria of nature.' Now, deep ecology, in my interpretation, is situated as far as possible from political ecology; moreover, the confusion between these two approaches is what constantly disrupts the strategy of the 'green' movements. The latter, persuaded that they could organize themselves along a spectrum ranging from the most radical to the most reformist, have in effect agreed to put deep ecology at the far end of the spectrum. [...] But deep ecology is not an extreme form of political ecology; *it is not a form of political ecology at all*, since the hierarchy of beings to which it lays claim is entirely composed of those modern, smooth, risk-free stratified objects in successive gradations from the cosmos to microbes by way of Mother Earth, human societies, monkeys, and so on. The producers of this disputed knowledge remain completely invisible, as do the sources of uncertainty; the distinction between these objects and the political world they bombard remains so complete that it seems as though political ecology has no goal but to humiliate politics still further by reducing its power, to the profit of the much greater and much more hidden power of nature - and to the profit of the invisible experts who have decided what nature wanted, what it could do, and what it ought to do. By claiming to free us from anthropocentrism, deep ecology thrusts us back into the Cave, since it belongs entirely to the classic definition of politics rendered powerless by nature [...].<sup>23</sup>

The first of deep ecology's problems lies in its concept of objectivity. Naess can be included in this criticism,<sup>24</sup> although he does not ignore the centrality of the problem of objectivity. According to Latour, nevertheless, Naess's solution does not make it out of modernism. Modernism is defined by Latour by the "modern Constitution" that separates nature and culture, object and subject,

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<sup>22</sup> Latour, *Politics of Nature*, 26.

<sup>23</sup> Ibid., emphasis in the original. "Cave" refers in Latour's rhetoric to the Platonic myth, which is used as a symbol of the separation between the "Heaven of Ideas" accessed by privileged experts and "the prison of the social sphere" with its disputable conventions and opinions (ibid., 238). It is also an alternative image to what Latour called, in *We Have Never Been Modern*, the "Modern Constitution" separating a priori the realms of nature and culture.

<sup>24</sup> Although most commentators of deep ecology acknowledge it as being a wide umbrella of inconsistent and not always strictly philosophical movements, most of the critics of Naess still confuse its philosophical thinking with other deep ecologists', or superimpose Naess's ecosophy and the deep ecology movement. I will deal only with Naess's thinking and within it, in particular, with the philosophical foundations of Ecosophy T, instead of its ethics of identification or other aspects of it.

matter and spirit, reason and belief, and in which dualisms are “so well drawn up that this separation has been viewed as a double ontological distinction.”<sup>25</sup>

Naess engages against the idea of nature as the inert objective background onto which the human story and vicissitude takes place. According to this common understanding of the natural world, all the value, and meaning and historicity belong to the human subject, who arbitrarily projects value onto objects which do not own any of it. Instead of this external nature of universal laws, as opposed to the human subjectivity of disputable opinions and emotions, Naess suggests to rely on a phenomenological account of nature.<sup>26</sup> Through a suspension of our dualistic worldview, we can go back to the “spontaneous experience” of reality, where the world is our lived world, the *Lebenswelt*. Objects, then, will be defined by Naess as the concrete contents of experience, as complex totalities or *gestalts*, as opposed to the abstract structures that separate them into ontologically discreet entities. The *Ding-an-sich*, the object in itself, is for Naess an *ens rationis*.<sup>27</sup>

Moreover, still in the attempt to refute the “man-in-the-environment” image, Naess also calls in ecological science: “the aspect of the science of ecology that is most important is the fact that it is concerned first of all with relationships between entities as an essential component of what these entities are in themselves.”<sup>28</sup> Naess adapts the ecological description of nature into his concept of intrinsic relation, emphasizing that while the latter is normative, no ethical norms can be derived from the science of ecology. Any problem with the bridging of “is” and “ought” is cut short through a formal warning against the naturalistic fallacy and the dangers of ecological scientism, that appear, however, to maintain the problem unsolved.

Naess delves into two main sources in order to frame the problem of nature, but they also reveal a first ambiguity in Naess’s philosophy. On the one hand, nature is our lived world, laden with meaning and values, and our relation to it runs through the characters of our experience and consciousness. On the other hand, nature is an external interrelated whole in which human biological continuity, or animality, seems to solve the problem of human difference within the ecological relations of a studied ecosystem. To make matters more complicated, sometimes Naess uses the term “nature” in lieu of “reality”, or as a solution to the ontological problem of being: “Rather than talking about reality or the world, ecophilosophical thinking proceeds in terms of nature, and humanity’s relation to nature.”<sup>29</sup> Other locations in Naess’s work present nature in terms of living beings, although not strictly in a biological sense:

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<sup>25</sup> Latour, *Never Been Modern*, 13.

<sup>26</sup> Naess, *Ecology, Community and Lifestyle*, 51: “Phenomenological viewpoints are valuable for the development of consciousness of a non-instrumental, non-utilitarian content of the immediate experience of nature.” See also *ibid.*, 32: “Is not the value-laden, spontaneous and emotional realm of experience as genuine a source of knowledge of reality as mathematical physics? If we answer ‘yes!’, what are the consequences for our description of nature?”

<sup>27</sup> Naess, *Concrete Contents*, 422-423.

<sup>28</sup> Naess, *Ecology, Community and Lifestyle*, 36.

<sup>29</sup> *Ibid.*, 35.

Instead of 'biosphere' we might use the term 'ecosphere' in order to stress that we of course do not limit our concern for the life forms in a biologically narrow sense. The term 'life' is used here in a comprehensive non-technical way to refer also to things biologists may classify as non-living: rivers (watersheds), landscapes, cultures, ecosystems, 'the living earth'. Slogans such as 'let the river live' illustrate this broader usage so common in many cultures.<sup>30</sup>

Difficulties appear to multiply in Naess's attempt to use "nature" in order to get rid of the "environment." In fact, the sense of externality conveyed by the word "environment," conceived as the habitat or the surrounding conditions of human life, is not openly shared by the term "nature." Nonetheless, this does not mean we know what we are talking about when we use the term "nature:" something in which we belong and, at the same time, humanity's Other. Latour instead throws away nature with all its complications and transcendences: "This book sets forth the hypothesis that political ecology has nothing at all to do with 'nature' - that blend of Greek politics, French Cartesianism, and American parks."<sup>31</sup> Naess is not responsible for creating this confusion: the concept of nature is intrinsically problematic.

Latour, indeed, combats the idea of "the 'cold and hard' nature of the primary qualities,"<sup>32</sup> just like Naess does. All the same, Latour also defines "the 'warm green' nature of the ecologists,"<sup>33</sup> a natural world in which we belong, as an equivalent misunderstanding. Even the notion of ecosystem is not adequate to solve the problem of nature:

The same problem arises with the notion of ecosystem. In supposing that they had surpassed the old limits of anthropomorphism because they were integrating nature and society, users of the term 'ecosystem' were retaining modernism's basic defect, its penchant for composing the whole without the explicit will of those humans and nonhumans who find themselves gathered, collected, or composed in it. They had even found a way to array all beings, humans and nonhumans alike, under the notion of 'global ecosystem,' in a totality constituted outside the political world, in the nature of things.<sup>34</sup>

"Green nature", human nature, the nature of things or essence: all these intertwine in equivocal ways in the whole philosophy of ecology, but they form one and the same problem. As Steven Vogel puts it, "nature" employed in the ecological discourse sometimes refers to the physical world, as opposed to the supernatural. This would be one of the classical meanings of *physis*, the physical world of which we are a part, in which we move, the world of secondary qualities that we perceive in experience, as opposed to the primary metaphysical qualities. In other discourses,

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<sup>30</sup> Ibid., 29.

<sup>31</sup> Latour, *Politics of Nature*, 5.

<sup>32</sup> Ibid., 245.

<sup>33</sup> Ibid., 132.

<sup>34</sup> Ibid., 131.

instead, “nature” refers to “what occurs without any human intervention” as opposed to artificial, where the emphasis is more on an external order in which we interfere.<sup>35</sup>

But the confusion generated by different and hardly separable accounts of nature is in itself not a reason good enough to eliminate the concept of nature itself. According to Latour, nature is dangerous as it hides its “intrinsically political quality.”<sup>36</sup> Nature is one way of constituting the common world, of accounting for reality, but the term itself obliterates the practices through which nature as a collector (and human society as its counterpart) is constituted. Through the purification of practice, the “natural order,” the “natural laws,” “the natural rights,” “inflexible causality”<sup>37</sup> and many other formulations of nature present themselves as transcendent, universal, indisputable, and accessible only to white coats or experts. The “modern, smooth, risk-free stratified objects” Latour accuses deep ecology of maintaining, then, are precisely the result of the lack of this political work.

*ii. Politics*

In opposition to objectivity as “matters-of-fact,” Latour invents the term “matters-of-concern” to show the connection between the constitutive work about reality and its political, procedural and practical character. In other words, “matters-of-concern” do not conserve the “oddity of the distinction, imposed by the old Constitution, between what is disputable (theories, opinions, interpretations, values) and what is indisputable (sensory data).”<sup>38</sup>

The last-mentioned connotation of politics is undoubtedly extraneous from Naess’s proposal. As noted by Latour, Naess is, actually, strongly concerned with politics and a change in policies. As for most environmentalist reflection, the political level is considered to be omnipresent, both on the institutional level and on the individual micro political relevance of actions and choices, for example consumerist ones. As a consequence, Naess’s project advocates for a power analysis and attempts to gain influence on decision makers, no matter their political orientation, in order to introduce less anthropocentric reasons in the political discussion concerning environmental value conflicts and to promote a change in lifestyle.<sup>39</sup>

Nevertheless, according to Latour, precisely this classic notion of politics prevents ecologists from securing their own political weight and the changes they promise, condemning ecological movements to stagnation.<sup>40</sup> If we want “green” politics, we need not only to let go of the concept of nature, but also of its counterpart, the classic concept of politics. Naess’s politics still come as a second degree of reflection, based on the inquiry into nature, as if the two were two separable domains of reality.

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<sup>35</sup> Cf. Steven Vogel, “Environmental Philosophy After the End of Nature,” *Environmental Ethics* 24 (2002): 26.

<sup>36</sup> Latour, *Politics of Nature*, 28.

<sup>37</sup> *Ibid.*

<sup>38</sup> *Ibid.*, 244.

<sup>39</sup> Cf. Naess, *Ecology, Community and Lifestyle*, 130-162.

<sup>40</sup> Latour, *Politics of Nature*, 1.

For political ecology, the classic concept of politics concerning human affairs, interests, preferences and passions, derives from the ontological cleavage between the matters of politics and “Science;” that is to say, it is embedded in the sharp distinction between epistemological concerns and “the lowly political questions - on values and the difficulty of living together.”<sup>41</sup> According to Latour, by treating nature as something out there to which we belong, even more authentically than our social dimension, we do not solve the fundamental separation of modernism: that between the realm of humans (or better, man) and a nature that is other to the human/social/cultural dimension. In this way, nature brought in the political debate is inevitably the nature of our feelings, our preferences, our attachments: conventional, subjective, interested, and even worse, in a desperate opposition to the nature of Science, of the “scientific worldview.”

A metamorphosis of the concept of politics is, then, required in Latour’s perspective, simply because the former does not hold up. As Latour shows throughout his whole work, politics have always been concerned with questions of nature: population, biology, objects of everyday use, agriculture, and so on. There has never been in practice a naked political dimension made and played by humans only, but the very existence of society is conditioned by nonhumans. At the same time, nature has always been an oppressive transcendence, the nature of things, the matters of fact; an order out there that would short-circuit every political work, every attempt to include the widest possible number of beings in the discussion about facts and decisions, as shown, for example, by the “nature-skeptical” traditions of culturalist critical theory, and gender and sex studies.<sup>42</sup>

Just like in the case of “nature”, replaced entirely by the locution “collective of associations of humans and nonhumans,” the concept of politics will shift from “power politics” to “politics conceived as *the progressive composition of the common world*.”<sup>43</sup>

What political ecology claims to be able to do is finally to show that the “modern Constitution” is not the only possible way to constitute our common world, it is not the only way to accord citizenship and recognition to the legitimate members of the world we live in. Otherwise stated: “political ecology proposes to do for nature what feminism undertook to do and is still

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<sup>41</sup> Ibid., 15.

<sup>42</sup> See Soper, *What is Nature?*

<sup>43</sup> Latour, *Politics of Nature*, 18; emphasis in the original. Cf. the definition of politics offered by Latour, *ibid.*, 247: “Politics: Used here in three senses that are distinguished by periphrasis: a) in its usual meaning, the term designates the struggle and compromises between interests and human passions, in a realm separate from the preoccupations of nonhumans; in this sense, I use the expression ‘politics of the Cave’; [Cave refers to Platos’s myth and is the label Latour gives to the modern Constitution, with its bicameral legislature of nature and culture]; b) in the proper sense, the term designates the progressive composition of the common world and all the competences exercised by the collective; c) in the limited sense, I use the term to designate just one of the five skills necessary to the constitution, the one that allows faithful representation by the activation - always to be repeated - of the relation between one and all.”



undertaking to do for man: wipe out the ancient self-evidence with which it was taken a bit too hastily as if it were all there is.”<sup>44</sup>

The two problems, the political and the epistemological, show their kinship in Latour’s analysis of representation. This distinction can be more easily seen, for example, in the Italian language. Unlike English, Italian provides two different terms for representation: *rappresentazione* and *rappresentanza*. The first frames the problem of the representation of things,<sup>45</sup> while the second designates that of political representation. However, *rappresentazione* and *rappresentanza* do not articulate two separate problems in Latour’s analysis, but one. According to Latour, the split between the two is a derivation of the modern dualism between culture and nature. Conversely, we do not find neutral scientists anywhere in scientific praxis, which are the simple invisible intermediaries of the mute things of nature, representatives who say “nothing but what the things would have said on their own, had they only been able to speak.”<sup>46</sup> On the other hand, no political representative, no Sovereign is a simple intermediary of his citizens, who says “nothing but what the citizens would have said had they all been able to speak at the same time.”<sup>47</sup> Objectivity and political will are both a matter giving form and voice. Both scientists and the Sovereign represent by “translating” their objects.<sup>48</sup> And within this translation, the same epistemological and political doubts arise: the possibility that in this translation something is “betrayed.” There is no safe and absolute way of telling whether the scientist translates or betrays, as well as we “shall never know whether representatives betray or translate.”<sup>49</sup> The issue cannot be undersized to a matter of deviation from normal representation, out of bad conscience, self-interest, or lack of impartiality. A third sense of representation is indeed involved: re-presentation [ita: *ripresentazione*], bringing to presence again, through a translation. Every translation is a reduction to some other definite form, and the “betrayal” cannot be divorced from its difference.<sup>50</sup>

Subsequently, political ecology aims to reopen the political work that gives representation to the nonhumans. The very concept of democracy needs to be reopened in light of the ecological crisis

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<sup>44</sup> Ibid., 49. Another example of the same concept can be found in Latour, *Never Been Modern*, 136: “The political task starts again, at a new cost. It has been necessary to modify the fabric of our collectives from top to bottom in order to absorb the citizen of the eighteenth century and the worker of the nineteenth. We shall have to transform ourselves just as thoroughly in order to make room, today, for the nonhumans created by science and technology.”

<sup>45</sup> Interestingly enough, *rappresentazione* also refers to a staged or theatrical performance.

<sup>46</sup> Latour, *Never Been Modern*, 142.

<sup>47</sup> Ibid., 143.

<sup>48</sup> See the definition of actant and actor, one of the ways Latour points to entities in a network instead of essences: “Actant is a term from semiotics covering both humans and nonhumans; an actor is an entity that modifies another entity in a trial; of actors it can only be said that they act; their competence is deduced by their performances; the action, in turn, is always recorded in the course of a trial and by an experimental protocol, elementary or not.” Latour, *Politics of Nature*, 237.

<sup>49</sup> Latour, *Never Been Modern*, 143.

<sup>50</sup> “I do not claim that things speak ‘on their own,’ since no beings, not even humans, speak on their own, but always through something or someone else.” Latour, *Politics of Nature*, 68. Cf. Bruno Latour, *The Pasteurization of France*, trans. Alan Sheridan and John Law (Cambridge - London: Harvard University Press, 1988), 153-236.

in order to include new voices that we can no longer ignore. Instead of relying on the great transcendence of nonhuman nature, political ecology urges to slow down and ask once again who are the citizens of this common world of humans and nonhumans.<sup>51</sup>

Giving representation to nonhumans means both finding a way to say what they are, and give them voice and political consideration. While ecosophy maintains the separation between the problem of objectivity and that of green policies, Latour convincingly shows the coincidence of the two. However, a common misunderstanding in the latter approach mistakes political ecology for advocating a socially constructed idea of nature: it is not a matter of politicizing nature. Abandoning the belief in the transcendence of nature, in its universal and mysterious origin, does not entail asserting that nature is artificial or man-made. On the contrary, Latour proclaims that “it is perfectly possible to speak of external reality without immediately confusing it with its hasty unification by a power that dares not bear that name and that still displays itself under the less and less protective cover of the epistemology police.”<sup>52</sup> The work of representation of nonhumans does not become the task of professional politicians! Sciences (as opposed to “Science”)<sup>53</sup> are the key to the phonation of nonhumans: “We can go much further in the redistribution of roles between politicians and scientists if we agree to take seriously the little suffixes “-logies” and “-graphies” [...]. Each discipline can define itself as a complex mechanism for giving *worlds the capacity to write or speak*.”<sup>54</sup> Politics, redefined, simply gets rid of nature and society as two distinct realms of reality, and replaces them with a gradient of nature-culture hybrids (as we do not have a better term available) as well as a redistribution of the sciences with their complex and unpredictable objects. This brings us to the third problem of deep ecology, as highlighted in the aforementioned quotation: the liberation from anthropocentrism.

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<sup>51</sup> The non-modern objects, or citizens of the common world, of course preserve identity and difference, but these are not understood in terms of a great transcendence between objects and subjects. They can be more properly interpreted as micro-transcendences which occur in translation (or representation), or hiatuses, or the provisional result of the “Power to Put in Order”, that institutes entities, official citizens. See Latour, *Politics of Nature*, cap 3; see also Patrice Maniglier, “A Metaphysical Turn? Bruno Latour’s *An Inquiry into Modes of Existence*,” *Radical Philosophy* 187 (2014): 37-44. A precedent formulation of the concept is offered by Latour with the noted idea of “the Parliament of Things.” After Heidegger and Michel Serres, Latour reminds us of the origin of thing: “In all the languages of Europe, north and south alike, the word ‘thing,’ whatever its form, has as its root or origin the word ‘cause’, taken from the realm of law, politics, or criticism generally speaking. As if objects themselves existed only according to the debates of an assembly [...]. Thus in Latin the word for ‘thing’ is *res*, from which we get reality, the object of judicial procedure or the cause itself [...]. The word ‘cause’ designates the root or origin of the word ‘thing’: *causa*, *cosa*, *chose*, or *Ding*. [...] The tribunal stages the very identity of cause and thing, of word and object. Latour, *Never Been Modern*, 83. Cf. *ibid.*, 142-145. Cf. Martin Heidegger, “La cosa”, in *Saggi e discorsi*, trans. Gianni Vattimo (Milan: Mursia, 1976), 109-124.

<sup>52</sup> Latour, *Politics of Nature*, 50.

<sup>53</sup> Science is an ideological term, which withdraws the practice of mediation, instruments and laboratories from the sciences and relinquishes reality as a transcendence in the exclusive hands of epistemology, the only authority on what is real or is not. Cf. *ibid.*, 249.

<sup>54</sup> *Ibid.*, 66; emphasis in the original.

*iii. Anthropocentrism, Anthropomorphism, Morphism*

By distancing himself from both nature as a social construction, and from nature as naked external reality, Latour brings up the formulation of “hybrid.” Remarkably, the idea of hybrid frames a wide space of ambiguities and equivocations in the concept of nature and the human-nature relation. What are genetically modified organisms? Are they natural or cultural? Is climate change a human or a nature problem? Is not mankind part of nature, and its products with it? Why would we be intrinsically related to a forest, but not to a nuclear power plant? And what about a restored or artificially planted forest? It is now clear how frail the distinction between natural and artificial really is and how it brings us to an impossible *impasse*. Vogel phrases the contradiction clearly: “humans are (a) part of nature and (b) ought not interfere with it.”<sup>55</sup>

Naess’s preoccupation with anthropocentrism can certainly be clarified as the second large ambiguity in his ecosophy. First of all, anthropocentrism appears as criticized in its strong form, as opposed to Naess’s principle of “biospherical egalitarianism.” The latter attributes “the equal right to live and blossom” both to human and nonhuman life. “Its restriction to humans is an anthropocentrism with detrimental effects upon the life quality of humans themselves.”<sup>56</sup> Egalitarianism is also the foundation of intrinsic value of nature as opposed to instrumental value, where nature is treated as means for humans’ ends. On this basis, Naess’s ecosophy has been pinned on the far ecocentric end of the anthropocentrism-ecocentrism axis of environmental philosophy. But things are way more complicated than that, and Naess is often too cheaply and easily thrown into the anti-anthropocentric polemic. Soon within the very same formulation, a first ambiguity emerges: “This quality [of human life] depends in part upon the deep pleasure and satisfaction we receive from close partnership with other forms of life.”<sup>57</sup> First of all, fighting anthropocentrism does not mean acknowledging nature’s interests while denying human interests. Moreover, later in the book, Naess remarks the impossibility of escaping the anthropic situatedness of the whole environmental discourse: “‘Homocentrism’ and ‘anthropocentrism’ which so often have been used in a derogatory way, should be qualified by an adjective, ‘narrow homocentrism’ etc. Gradually the prospect of protecting the planet as a whole and for its own sake is seen as one of the greatest challenges ever. And it certainly is a specifically *human* task.”<sup>58</sup> Furthermore, Naess’s reliance on phenomenology and on the concept of nature in terms of a value- and meaning-laden *Lebenswelt* moves Naess’s ecosophy closer to a certain usage of “anthropomorphism” or “perspectival anthropocentrism” in environmental philosophy.<sup>59</sup> Finally, Naess holds onto Protagoras’s *homo mensura*, proclaiming that man holds a measuring rod, but

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<sup>55</sup> Vogel, *Environmental Philosophy*, 26. See also Steven Vogel, “The Nature of Artifacts,” *Environmental Ethics* 25 (2003): 149-168.

<sup>56</sup> Naess, *Ecology, Community and Lifestyle*, 28.

<sup>57</sup> *Ibid.*

<sup>58</sup> *Ibid.*, 141.

<sup>59</sup> Cf. Val Plumwood, *Environmental Culture: The Ecological Crisis of Reason* (London - New York: Routledge, 2002, Kindle edition), loc. 1292-1408; Christian Diehm, “Minding Nature: Val Plumwood’s Critique of Moral Extensionism.” *Environmental Ethics* 32 (2010): 3-16.

this does not offer any final verdict about what humankind measures, which can be discovered “to be greater than himself and his survival.”<sup>60</sup> Several elements in Naess’s thinking unfold the problem of anthropocentrism both in terms of anthropocentrism of value and the anthropocentric perspective of representation.

Latour’s setting of the problem does not fall too far from Naess’s, at least to the extent to which anthropocentrism is deprived of any meaning by the opening of the problem of objectivity. Nonetheless, we saw earlier how Latour considers Naess’s approach to objectivity inadequate. In this respect the appeal to ecocentrism does nothing but make the problem worse, since it strengthens the bond even further to nature emerging as a category in opposition to the humanistic one.

Anthropocentrism appears simply rationalistic<sup>61</sup> to Latour, once we engage in the reopening of the democratic process, extending the doubt of good representation to nonhumans. This reopening of the collective comes with its complementary critique of humanism: “So long as humanism is constructed through contrast with the object that has been abandoned to epistemology, neither the human, nor the nonhuman can be understood.”<sup>62</sup>

Even the anthropomorphic element in Naess’s account of nature as *Lebenswelt* would be equally dismissed by Latour. One reason for this rejection lies in Latour’s disenchantment with phenomenology. The latter would fail, in his account, to bridge the dichotomy between subject and object, between pure consciousness and pure object, while dwelling right in the middle, within the insurmountable tension of intentionality.<sup>63</sup> Moreover, Latour tends to reject the idea of anthropomorphism because anthropomorphism tends to mean the projection of the “human” taken in a reductionist, essentialist way as if we had a definition of its essence ready at hand. It follows that not only metaphysics, but also humanism needs to become experimental.<sup>64</sup> Far from providing an essence to the human, of which pre-defined characters would be projected onto the world, Latour prefers the term “morphism” to announce the “agency of the *anthropos*.”<sup>65</sup> With this term, Latour tries to capture the artificial side, the action or role the human has, without

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<sup>60</sup> Arne Naess, “A Defence of the Deep Ecology Movement,” *Environmental Ethics* 6 (1984): 270.

<sup>61</sup> Cf. Bruno Latour, “Agency at the Time of the Anthropocene,” *New Literary History* 45 (2014): 1-18.

<sup>62</sup> Latour, *Never Been Modern*, 136.

<sup>63</sup> *Ibid.*, 57-58. Latour recognizes the immense progress of phenomenology over the Cartesian image of a mind dealing with an outside world. Nevertheless, phenomenology would still present the problem of leaving reality abandoned to itself. The “real world” presented by sciences is not the world of phenomenology, for which the world is only a world-for-a-human-consciousness. In this sense, the gap still remains and the choice appears to be between “a world of science left entirely to itself, entirely cold, absolutely inhuman, and a rich lived world of intentional stances entirely limited to humans, absolutely divorced from what things are in and for themselves.” Bruno Latour, *Pandora’s Hope: Essays on the Reality of Science Studies* (Cambridge: Harvard University Press, 1999), 9. To this difficulty, Latour opposes the attempts of his field, science studies, which do not get rid of textuality nor of the human manufacture character of fact, but mix a plurality of elements where neither the object, nor the social, have entirely a human or a nonhuman character.

<sup>64</sup> Latour, *Politics of Nature*, 198.

<sup>65</sup> Latour, *Never Been Modern*, 137.

thinking of the human as a pure subject. The human is the mediator, the translator. The human does this, not based on a predefined set of capacities, but through its presence, its action, its grasping, the very material setting of the conditions that bring aspects of the world to emergence. Every time something emerges through a shape [*morph-*], this is the action of the *anthropos*. Nevertheless, humanity does not occupy any special position in the universe,<sup>66</sup> at one end of the culture/nature spectrum, projecting meaning through its mental qualities onto an object that would have none. Nor does humanity construct the world, neither in a constructivist, nor in any idealistic sense, nor in any Kantian phenomenal connotation. The endless swinging of philosophy along the culture/nature axis, between a constructivist and a realist alternative, creates the difficulty of not falling in any of the two polarities. This mono-dimensionality, moreover, makes it impossible for ecological philosophy to get out of the pattern split between subjective interpretations and objective facts. "Morphism" is simply equated with the dimension of our practices of knowledge, be they speech, texts, narrations, or scientific laboratory setups. Practice allows the mediation between human and nonhuman all the time, while the modern constitution denies it, purifies it from its outcome, from the represented object. Morphism, then, belongs to representation in its practice. Morphism is a "common trading zone - [...] a property of the world itself,"<sup>67</sup> as opposed to a shape arbitrarily superimposed by the observer, the speaker, or the writer. If we abandon a reductionist, underestimated notion of the human as defined, for example, by his rationality and other mental qualities, agency is redistributed among the mediations, the relations, the translations, whenever "things" assume a shape. "It is true that by redistributing the action among all these mediators, we lose the reduced form of humanity, but we gain another form, which has to be called irreducible."<sup>68</sup> In his exceptionally rich and varied work, Latour provides another name for "things," in light of his idea of morphism or mediation: that of "factish," a combination of "fact" and "fetish," reality and belief, in which the human and external reality once again cannot be told apart.<sup>69</sup>

Given Latour's problematization of the human/subject/culture half of the modern dualistic Constitution, it is possible to understand the reason why he charges Naess's concept of ecological self with the accusations of restoring anthropocentrism:

Even if Arne Naess's work goes a little deeper than deep ecology, he aims at 'self-realization', which confuses the issue, for we return finally to a solid anthropocentrism. He nevertheless addresses a question that I have left aside, that of the psychology of citizens linked by what he calls relational fields to the totality of the biosphere, thanks to 'ecosophy.' We shall see [...] how to grant ethics a completely different role and what political work is necessary before we can speak of 'relational field', 'ecospheric belongings', or even any sort of unification. Naess, in his pleasant gobbledy-gook, is a good representative of this philosophy of

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<sup>66</sup> Cf. Latour's critique of Heidegger in *Never Been Modern*, 65-67.

<sup>67</sup> Latour, "Agency," 13.

<sup>68</sup> Latour, *Never Been Modern*, 138.

<sup>69</sup> Cf. Bruno Latour, *On the Modern Cult of the Factish Gods* (Durham - London: Duke University Press, 2010).

ecology that does feel the metaphysical limits of the division between nature and humanity, but that strives to 'go beyond' the 'limits of Western philosophy' instead of delving into the political origins of this division. If we are to combat this division, it is by adopting a different politics, not a different psychology.<sup>70</sup>

In Latour's interpretation, the ecological crisis is mainly an issue involving politics, sciences, discipline, cosmology, not the individual endeavor of psychological identification. The latter would have the lethal defect of leaving the metaphysics of nature intact. Latour does not mention Plumwood, but his critique resonates the ecofeminist one. Notoriously, she accuses the deep ecological conception of self of ultimately universalizing egoism and self-interest.<sup>71</sup> In Latour's discourse, however, egoism is not the focus. The process of identification through which the ecological self expands in its relations may be accused by Latour of confronting the notions of individual self and natural objects only superficially, without being equipped for an actual ontological reopening.

### 3) WHAT IS THE ECOLOGICAL CRISIS?

Latour's criticism of Naess's capitulation to "the metaphysical limits of the division between nature and humanity" applies not only to Naess's references to the "self", but also to his understanding of the ecological crisis.

In *Ecology, Community and Lifestyle*, Naess frames the "gravity of the situation" in terms of "environmental deterioration." This deterioration is caused mainly by a global expanding culture of industrial production and consumption. Moreover, the environmental destruction we are facing is not merely described as an ecological *fact* or scientific description of the "crisis of life conditions on Earth". The ecological crisis carries a negative moral weight, expressed by Naess in terms of threat to the survival of future generations and reduction of the present life quality. It follows that the ecological crisis can also be, according to Naess, an occasion for humans to re-value their "unrealized potential [...] for varied experience in and of nature."<sup>72</sup> Finally, the destruction of nature is only possible as the result of an instrumental view that goes back to a "false distinction between subjective and objective."<sup>73</sup>

On Latour's interpretation, Naess's idea of the ecological crisis reveals his rooted naturalism and his preservation of the human/nature separation. Naess's naturalism is rendered in terms of

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<sup>70</sup> Latour, *Politics of Nature*, 256-257 n29.

<sup>71</sup> Plumwood, "Nature, Self, and Gender," 14.

<sup>72</sup> Naess, *Ecology, Community and Lifestyle*, 23-24.

<sup>73</sup> Arne Naess, "Dall'ecologia all'ecosofia, dalla scienza alla saggezza", in *Physis. Abitare la terra*, ed. Mauro Ceruti and Ervin Laszlo (Milano: Feltrinelli, 1988), 455. My translation: "The cold detachment and brutality within the attitude of exploitation of nature has reduced the sensitivity towards the vastness of the perpetrated devastations, as well as the capability to confront systematically their deepest causes. They produced a negative effect on the human view of reality. Detachment from the rich and spontaneous experience of nature enabled certain abstract structures, or even the scientific models of those structures, to be arbitrarily accepted as the very content of reality. Our point of arrival was a false distinction between subjective and objective."

“power relations” between nature and humanity. In the recent ecological issues, these power relations have swapped; they switched their respective place. During the 20th century, humanity would have become so powerful, through its demographic and technical growth, that it would compete with geological forces, becoming dangerous to the planet. The old concept of “wet nurse and hostile Earth” switched, through an inversion of power relations, to “an old fragile mother in search of protection.”<sup>74</sup>

Certainly, not all the aspects of this account are dismissed by Latour. In the first place, Latour, too, deals with the destruction of nature perpetuated by the ideological means of the human/nature dualism. This, although detrimental for the environment, was motivated by the effectiveness and instrumental excellence of the modern Constitution enterprise:

Modernization, although it destroyed the near-totality of cultures and natures by force and bloodshed, had a clear objective. Modernizing finally made it possible to distinguish between the laws of external nature and the conventions of society. The conquerors undertook this partition everywhere, consigning hybrids either to the domain of objects or to that of society. [...] the past was a barbarian medley, the future a civilizing distinction.<sup>75</sup>

The geological dimension of humanity’s power is also shared by Latour’s ecological reflection. This is exactly what the concept *Anthropocene*, that Latour assumes, stands for (Naess, instead, wrote in a time precedent to the spread of the label within the environmental debate).<sup>76</sup>

Nevertheless, the main focus in Latour’s account of the ecological crisis lies on the instability of the concept of nature and of the nature/society distinction. It is worth noting that, in Latour’s words, natures and cultures have been destroyed, in their local and historical characters, rather than external nature in its abstract wholeness. Even Lovelock’s *Gaia*, which notoriously offers a description of the global dimension of the ecological changes, shows a great deal of heterogeneous phenomena explored through mixed sciences, instead of one unified and human-affected domain of reality (nature). In fact, in Latour’s understanding, “Gaia” is far from being an ontologically unified superorganism, showing, instead, a redistribution of agency in different processes that involve both the side of nature and human, “Earth” and “Earthlings.”<sup>77</sup>

In *We Have Never Been Modern*, the ecological crisis is framed as one of the most relevant effects of the modern Constitution, together with human population growth. Thanks to its separation

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<sup>74</sup> Bruno Latour, *Politiche della natura: Per una democrazia delle scienze*, trans. Maria Gregorio (Milano: Raffaello Cortina Editore, 2000), 55; my translation. The section containing the citation is not present in the English edition of *Politics of Nature*.

<sup>75</sup> Latour, *Never Been Modern*, 130.

<sup>76</sup> Cf. Latour, “Agency.” See also Bruno Latour, “Waiting for Gaia: Composing the Common World Through Arts and Politics,” Lecture given at the French Institute, London, November 2011 for the Launching of SPEAP (the Sciences Po Program in Arts & Politics). [http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP\\_0.pdf](http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP_0.pdf); accessed 26 February 2015.

<sup>77</sup> Latour, *Waiting for Gaia*, 8-10.

between nature and society, modernism allowed the development of the sciences and techniques on such a large scale that the hybrids so mobilized spun out of control:

If we had been able to keep the human multitudes and the nonhuman environment repressed behind us longer, we would probably have been able to continue to believe that modern times were really passing while eliminating everything in their path. But the repressed has returned. The human masses are here again, in the East as well as in the South, and the infinite variety of nonhuman masses have arrived from Everywhere. They can no longer be exploited. They can no longer be surpassed, because nothing surpasses them any longer.<sup>78</sup>

The ecological crisis is, then, the consequence of modernism and cause for its end.<sup>79</sup> The modern Constitution is exhausted because it does not guarantee its original task anymore: the separation of external reality and social/subjective world. In practice, the mediation between the two collectors has always been normal and permitted (Latour's favorite example is the scientific laboratory with its instruments, measurements, people, practices, and its network of biological, historical, legal, social, political, and economic dimensions). Nevertheless, modernism subsequently "purifies" its practices, creating the two entirely separated ontological realms of objectivity and subjectivity, humans and nonhumans.<sup>80</sup> The efficacy of the modern Constitution depended on the concealment of mediation, that the proliferation of hybrids instead exposes. According to this first formulation, then, we need to change the categories of subjective and objective if we finally want to understand our Western contemporary world and, at the same time, start accounting for "the totality of the human and nonhuman third worlds."<sup>81</sup>

Only in *Politics of Nature*, however, Latour offers his definition of the ecological crisis, or better, "crises", as "crises of objectivity," as opposed to "crises of nature." The ecological crises appear as general crises of "constitution" bearing "on *all* objects, not just on those on which the label natural has been conferred."<sup>82</sup> The objects involved in these crises are matters-of-concern, "associations of beings that take complicated forms - rules, apparatuses, consumers, institutions, mores, calves, cows, pigs, broods - and that it is completely superfluous to include in an inhuman and ahistorical nature."<sup>83</sup> A perfect example of this notion of ecological crisis is *Anthropocene*: the era in which humanity as a whole has become a genuine geological force. In other words, the crisis comes from the emergence of phenomena that disconcert our previous established ideas about nature and the environment. In the ecological crisis, according to Latour, our concept of nature is

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<sup>78</sup> Latour, *Never Been Modern*, 76-77.

<sup>79</sup> "Truly exceptional events must have weakened this powerful mechanism for me to be able to describe it today with an ethnologist's detachment for a world that is in the process of disappearing" (ibid., 35).

<sup>80</sup> Ibid., 10-11.

<sup>81</sup> Ibid., 74.

<sup>82</sup> Latour, *Politics of Nature*, 20.

<sup>83</sup> Ibid., 21.



revealed as “an unjustified process of unification of public life<sup>84</sup> and distribution of the capacities of speech and representation [...]”<sup>85</sup> We are thrown into crises by acid rain, ozone depletion, species extinction, and ecosystem deterioration because we do not know anymore what kind of phenomenon we are facing, what its agency is, and what are its consequences. Does it follow anthropic causes or the causality of the laws of nature? Is it affecting our civilization? Does the very self-understanding of our humanity and our cultures remain intact in front of it? Or do we need to rethink our place in the world and our relation to it?<sup>86</sup> What comes knocking on the door, says Latour, “no longer has the polemical form of a silencing matter of fact, but the ecological form of a perplexed nonhuman entering into a relationship with the collective and gradually being socialized by the complex equipment of laboratories.”<sup>87</sup> The ecological crisis, understood in terms of crises of objectivity, explains why, paradoxically, we worry about the environment “when there is *no more environment*”<sup>88</sup> environment as something external to humans, as mere resource or background, just like the notion Naess fights, is exposed as an unsustainable image. We find ourselves deprived of a zone of reality, an external nature “that would serve politics simultaneously as a standard, a foil, a reserve, a resource, and a public dumping ground.”<sup>89</sup> On the contrary, an environmental crisis reveals some of the conditions of our very own existence, opening at the same time the question about the natural objects and our human identity.

Ecological crises do not happen in nature, but in the complex associations of humans and nonhumans. These associations have risky, furry, uncertain outlines. Uncertainty is an intrinsic character of ecological crises. An ecological crisis as crisis of objectivity bears intrinsic uncertainty because it is not clear anymore who is the subject and who is the object, who acts and who is acted upon, who has agency and who is inert, who is end to itself and who is mere means:

Here we are contrasting the subject-object pair with associations between humans and nonhumans. ‘Objects’ and ‘objectivity,’ along with ‘subjects’ and ‘subjectivity,’ are polemical terms, invented to short-circuit politics once nature has been put in place; thus we cannot use them as citizens of a collective that can recognize only their civil version: associations of humans and nonhumans.<sup>90</sup>

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<sup>84</sup> To be read as regarding mixed associations of humans and nonhumans, not just human society.

<sup>85</sup> *Ibid.*, 245.

<sup>86</sup> See for example Bruno Latour, “A Plea for Earthly Sciences,” In *New Social Connections: Sociology’s Subjects and Objects*, ed. Judith Burnett, Syd Jeffers and Graham Thomas (London: Palgrave Macmillan, 2010), 74: “How can we read in the newspapers that ‘we’ as humans might be responsible for 30 or 40 per cent of species’ extinction, without this effecting a change in our ‘identity’ and our ‘relationships’? How can we remain unmoved by the idea that we are now as dangerous to our life support system as the impact of a major meteorite? How can we have the same definition of ourselves [...]?”

<sup>87</sup> Latour, *Politics of Nature*, 77.

<sup>88</sup> *Ibid.*, 58; emphasis in the original.

<sup>89</sup> *Ibid.* Cf. *ibid.*, 241.

<sup>90</sup> *Ibid.*, 246.

The uncertainty regarding the ontology of nonhumans is, at the same time, the uncertainty about the ethical imperative that concerns them. As a consequence, Latour addresses the ecological crises also in terms of “*generalized revolts of the means*”:

[...] no entity - whale, river, climate, earthworm, tree, calf, cow, pig, brood - agrees any longer to be treated “simply as means” but insists on being treated “always also as an end.” This in no way entails extending human morality to the natural world, or projecting the law extravagantly onto ‘mere brute beings,’ or taking into account the rights of objects “for themselves;” it is rather the simple consequence of the disappearance of the notion of external nature.<sup>91</sup>

If we listen to Latour, Naess’s formulation of the ecological crisis still grasps on an external nature whose equilibria are being destroyed, a crisis of nature.<sup>92</sup> As opposed to this, Latour talks of a crisis of objectivity. Nevertheless, both the authors account for the historical, unprecedented character of the extent of the ongoing changes. And in both cases, facing the crisis entails reopening the ontological or metaphysical given. Naess’s ambiguity about the concept of nature, as discussed earlier, reflects itself in the way Naess handles the notion of ecological crisis: he appeals against the degradation of nature while, at the same time, questioning what nature is and advocating the abandonment of the notion of an external reality, which is a byproduct of the subject/object ontological distinction.

Nonetheless, the framework in which both authors operate overlaps under many aspects. Latour’s proclamation of the ecological crisis as a “revolt of means” shows the kinship between the ontological and the moral question. The two questions open simultaneously, just as the problem of representation opens both an epistemological and a political question. A similar process occurs within the moral elements of ecosophy and Naess’s attempt to avoid the pitfall of value subjectivism.

#### 4) MORALITY, FACTS AND VALUES

At first glance, Naess and Latour share the same definition of morality and the same approach to values. On the one hand, they both refer to an inclusion of nonhumans in the sphere of moral consideration, framed as an extension of the Kantian imperative. On the other hand, they are both concerned about dismissing the distinction between facts and values. This distinction would follow, indeed, from the subject/object dichotomy, which both thinkers have endeavored to abandon through different strategies.

As Latour mentions, moral consideration needs to include nonhumans:

The old split between facts and values obliged moralists [...] to flee back toward the foundations or limit themselves to procedures, or else to imitate in vain the type of certitude that naturalism seemed to offer. [...] We can define morality as *uncertainty* about the proper relation between means and ends, extending Kant’s

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<sup>91</sup> Ibid., 155-156; emphasis in the original.

<sup>92</sup> See Naess, *Ecology, Community and Lifestyle*, 26: “crisis of life conditions on Earth.”

famous definition of the obligation ‘not to treat human beings simply as means but always also as ends’ – provided that we *extend it to nonhumans as well*, something that Kantianism, in a typically modernist move, specifically wanted to avoid.<sup>93</sup>

In addition to this formulation, Latour acknowledges that “the same argument is made by the founder of deep ecology, Arne Naess.”<sup>94</sup> Nevertheless, “Naess’s limitation to ‘living beings’ reflects the same error Kant made, even if what he takes into account is a little broader.”<sup>95</sup>

Naess’s formulation of intrinsic value<sup>96</sup> in terms of “equal right to live and blossom”<sup>97</sup> is conceived as an extension to nonhumans of the intuitive and apodictic value we experience about ourselves and our loved ones. Intrinsic value is, then, conceived in opposition to instrumental value. Naess criticizes the idea of a subject discriminating arbitrarily between those things which are means to an end, and those which are ends in themselves because this very capacity of the subject can only be conceived as based on a strict subject/object dichotomy. From this dichotomy a subsequent value theory emerges, according to which the human subject is the only source of meaning and value, and projects value onto a valueless and meaningless external reality.

Although the instrumental or utilitarian vs intrinsic value distinction is a very classical one,<sup>98</sup> Naess’s concern deals primarily with its consequences on environmentalist arguments, where ecological militants are constantly accused of caring and defending subjective preferences and irrational feelings of affection towards nature. Naess’s “gestalt ontology” constitutes, then, his philosophical effort to overcome the separation between valueless natural objects and relativistic value-bearer subjects: “The distinction between ‘facts’ and ‘values’ only emerges from gestalts through the activity of abstract thinking.”<sup>99</sup> The subject/object structure is, in Naess’s words, an abstraction. “The importance of abstract structural considerations cannot be overestimated, but, like maps, their function is not to add to the territory, the contents, but to make it more visible.”<sup>100</sup> Naess retrieves from Whitehead the critique of the projection of secondary qualities on a “soundless, scentless, colorless” nature<sup>101</sup> and argues that our experience of the world is holistic,

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<sup>93</sup> *Ibid.*, 155; emphasis in the original.

<sup>94</sup> *Ibid.*, 276 n44. Latour quotes from Naess, *Ecology, Community and Lifestyle*, 174: “Immanuel Kant’s maxim ‘You shall never use another person only as a means’ is expanded in Ecosophy T to ‘You shall never use any living being only as a means’.”

<sup>95</sup> Latour, *Politics of Nature*, 276 n44.

<sup>96</sup> See the first point in the deep ecology platform: “The flourishing of human and non-human life on Earth has intrinsic value. The value of non-human life forms is independent of the usefulness these may have for narrow human purposes” (Naess, *Ecology, Community and Lifestyle*, 29).

<sup>97</sup> *Ibid.*, 28.

<sup>98</sup> See for example Erazim Kohák, *The Green Halo: A Bird’s-Eye View of Ecological Ethics* (Chicago and La Salle: Open Court, 2000, Kindle edition) loc. 937-970.

<sup>99</sup> *Ibid.*, 60.

<sup>100</sup> *Ibid.*, 65.

<sup>101</sup> *Ibid.*, 51.

and comes in gestalts. It follows that our descriptions of the world do not need to separate objects and their value, but these emerge together. There is no statement neutral of value, there is no separate object in need of an assessment of value.<sup>102</sup> Values, emotions, and meaning pertain to phenomena in our experience.

Latour denies that Naess's strategy brings his proposal out of the ontological subject/object split. As mentioned earlier, Naess sticks to a merely perceptual and individual dimension of the problem, lacking any political work of constitution of the facts and values that *belong* to the common world. This kind of negotiation can only be made within the collective, in its very reopening.

As a matter of fact, Latour shares with Naess an important reference to the primary/secondary qualities separation. Latour writes:

Here I am politicizing Whitehead's critique of the distinction between primary and secondary qualities, as well as of the strangeness of the role given to the human mind: "The theory of psychic additions would treat the greenness [of a blade of grass] as a psychic addition furnished by the perceiving mind, and would leave to nature merely the molecules and the radiant energy which influence the mind toward that perception." [...] The same critique, based on Whitehead and James, of the division between primary and secondary attributes is also found in Naess 1988, but with a very different solution.<sup>103</sup>

Latour's utilization differs from Naess's in that, after the *end of nature*, the point is not to naturalize the secondary qualities, by making nature "green and warm." "Politicizing" the split between primary and secondary qualities means that the constitutional work regards not only the problem of a common world, but that of a "good common world:"

The modernist Constitution in fact saw debates over ecology merely as a mixture to be purified, a mixture combining rationality and irrationality, nature and artifice, objectivity and subjectivity. The new Constitution sees in these same crises disputes [...] a completely different topic: every where, every day, people are fighting over the very question of the good common world in which everyone - human and nonhuman - wants to live. Nothing and no one must come in to simplify, shorten, limit, or reduce the scope of this debate in advance, by calmly asserting that the argument bears only on 'representations that humans make of the world' and not on the very essence of the phenomena in question.<sup>104</sup>

That is to say, political ecology is not a debate about uncertain values in complex situations, to which, in principle, a supplement of scientific neutral - but objective - knowledge could offer a better basis for discrimination. Nor can we simply dismiss the scientific image of nature as false, while at the same time naturalizing values and preferences. On the contrary, the two dimensions,

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<sup>102</sup> See *ibid.*, 65-67.

<sup>103</sup> Latour, *Politics of Nature*, 260 n56.

<sup>104</sup> *Ibid.*, 129-130.

facts and values, belong to the same political task. That is to say, there is not one unified Science protocol, exclusively accessing things as they are on one hand, and a plurality of affective representations of them on the other. Sciences are reliable, local, historical practices of knowledge, which deliver the common world to us. By doing this, they do politics, they create the Constitution of our world that, as a political world, respects values and can be re-opened for discussion.<sup>105</sup>

The very categories of facts and values hide, for Latour, a fundamental confusion. The notion of fact needs to necessarily include “the stages of its fabrication, the indispensable role of *shaping* data [...]”<sup>106</sup> on the other hand, the notion of value will participate legitimately to the controversies about the states of the world: the moralists are one of the voices in the negotiation of the matters-of-concern. The notions of “subject” and “object”, “nature” and “culture,” “facts and values” should be ditched completely. Alternatively, Latour suggests that two cross practices or constitutive powers should be considered: the “Power to take into account” and the “Power to Put in Order”. The root of the confusion and the unsolvable conflict between facts and values is ascribed to these two demands. Both facts and values try to meet them in their own specific way. We are used to understanding “facts” as the answer to the problem of “what it is,” and values as the expression of what matters, what we keep and what we ditch in our moral consideration. Latour, however, suggests that “facts” and “values” are both concerned with states of affairs, as well as with their moral consideration. “Facts” represent both the importance of opening the question about “what it is,” and the necessity to find an answer, to close that question and decide what matters, which achieves objective knowledge. “Values”, on the other hand, open the question about what matters, warning us about something being left out of our consideration. At the same time “values” match a requirement of hierarchy, of composition of conflicts in what matters, putting our priorities in order.<sup>107</sup>

According to Latour, then, morality, strictly speaking, shifts its role. It used to be praised as the research of the universal or formal foundations of ethics, or as the discipline that knows “what must be done and not done.”<sup>108</sup> Instead, moralists have a fundamental role in the new

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<sup>105</sup> In this respect, the different usage the two authors make of the precautionary principle can be particularly illustrative. Naess sticks to a somewhat classical notion of precaution, which springs out of a lack of knowledge about ecosystems and nature, and advocates for conservation, or the least intervention and risk taking. Latour suggests, instead, a different concept of precaution, in which the uncertainty about the state of the world is indeed structural because it is political (although not relativist or arbitrarily constructed). Precaution, then, does not mean to abstain from action, but, on the contrary, to develop more research. It is a call for experimentation, invention, risk taking in the constant redefinition of the common world. It is a call to act instead of a call to abstain from action. See Naess, *Ecology, Community and Lifestyle*, 27: “It appears that public and private offices who heed ecological expertise must become accustomed to a new normal procedure: the recommendation and instigation of bold, radical conservation steps justified by the statements of our lack of knowledge.” See Latour, “From Multiculturalism to Multinaturalism: What Rules of Method for the New Socio-Scientific Experiments,” *Nature and Culture* 6, no. 1 (2011): 1-17.

<sup>106</sup> Latour, *Politics of Nature*, 97; emphasis in the original.

<sup>107</sup> See *Ibid.*, 102-108.

<sup>108</sup> *Ibid.*, 156.

constitution “because they know that *everything that will be done well will necessarily be done badly*, and as a result will have to be *done over again right away*.”<sup>109</sup> The constitution, closure, and stabilization of the collective are always dangerous and artificial to morality, even though progressive and provisional. Morality’s role lies in calling for suspension and inclusion, a reexamination of the excluded. For this reason, being moral, in principle, means including in our consideration all there is: “Thanks to morality, outcasts will be able to make themselves heard once again. Keeping this virtue for humans alone will soon be seen as the most immoral of vices.”<sup>110</sup>

Both in Latour and Naess the value of nonhumans does not come from altruistic care but an actual reformulation of the ontological question. Regardless, in light of Latour’s political ecology, Naess fails to follow up all the way through his non-dualistic attempt. This becomes clear if we consider how the normative system of Ecosophy T *combines*, juxtaposing, prescriptive moral norms (“N!”) and descriptive hypotheses about the state of the world (“H”).<sup>111</sup> Latour, on the contrary, rejects for political ecology both the label of normative and descriptive, since this distinction depends on that of facts and values. Moreover, he warns us that “there is in ‘mere description’ an overly powerful form of normativity: what *is* defines the common world and thus all that *must* be - the rest having no existence other than the nonessential one of secondary qualities.”<sup>112</sup>

Also, Naess’s formulation of intrinsic value still appears to be embedded in the research for a moral fundament in external nature, although radically widened and more inclusive. A good rephrasing of intrinsic value, instead, should take into consideration the continuous reopening of the ontological question, as suggested by Latour with the new role of morality. The uncertainty about the nature of humans and nonhumans prevents them from being attributed the roles of means or ends in advance. This kind of continuous exercise of doubt, of *epoché*, would be the moral thing to do.

#### 5) PRECISELY IN ITS FAILURES...

Latour’s criticism of Naess is important for ecosophy. It is important inasmuch as it exposes Naess’s fundamental ambiguities. These can be summarized within the two categories of *anthropos* and nature. We started by outlining a general common framework in which both thinkers operate: the review of the concept of the human and of that of nature in light of the ecological crisis. Latour’s work reveals that Naess maintains important ambiguities with regard to both the two cardinal poles. This is not surprising: the dismissal of the two concepts lies at the heart of a lifetime of multidisciplinary research for Latour. Even his very original work on political ecology resolves to make use of a jargon of new words and reinvented meanings to emerge as a viable discourse outside the nature/culture categories.

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<sup>109</sup> Ibid.

<sup>110</sup> Ibid., 160-161.

<sup>111</sup> See Naess, *Ecology, Community and Lifestyle*, 196-210.

<sup>112</sup> Latour, *Politics of Nature*, 224.

Acknowledging Naess's ambiguities makes the clarification of Naess's philosophical questions possible, and creates a chance to outline a new response to them. To some extent, in my reading, Latour would ask Naess to have the courage to go all the way through the range of the problems he, himself, opens. Taking seriously Naess's difficulties about nature and the *anthropos* means taking ecosophy seriously.

Latour's proposal completes Naess's to some extent. Both thinkers deal with the challenge of a non-modern approach to ecological issues. In this respect, I think Latour intentionally minimizes the extent of the actual overlap of critical areas between Naess's and his own approach: in particular the idea of a relational and local identity of entities, as well as an egalitarian ontological position that acknowledges nonhumans outside the identification of rationalistic criteria for moral considerability.

Nonetheless, the core difference between the two, namely Naess's eventual appeal to "nature" in its non-social, transcendent prescriptive power, seems to remain an insurmountable disjunct. Latour's difference lies, then, in taking on more radically the task of a constructive non-modern agenda.<sup>113</sup>

With these clarifications in mind, I think it is possible to ask ecosophy further questions, for example if Latour's position of the political problem should engage ecosophical thinking in defining a new agenda that would make ecosophy relevant to politics. Latour's position on nature, indeed, is embedded in his "science studies" and produces the plea for a cultural and political change in the way we conceive knowledge and the sciences (be they in "humanities" or "scientific" areas). Representing the world of nonhumans means, in fact, recognizing the political role of the sciences in the accomplishment of democracy.<sup>114</sup> On the contrary, the ecosophical political agenda appears, in general, to engage more with creating the conditions for individuals for a freer access to nature and for an alternative positing of the individual question about the good life.<sup>115</sup>

The afore mentioned individual dimension raises, however, one more question that, in my opinion, remains open and untouched by Latour's account. It is the question about wisdom, the *sophia* of ecosophy. It is the question of individual practice and emancipation in a relational framework, or, in other words: how do we practice the abandonment of subjectivity? Naess and deep ecology are, maybe, overly concerned with spiritual issues. Nevertheless, I do not think that the question can be completely absorbed within Latour's anthropological configuration or in the

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<sup>113</sup> I speak of non-modern instead of postmodern, since both authors have specific difficulties with postmodernism in terms of the hanging in the "post" of "modernism." Cf. Arne Naess, "Heidegger, Postmodern Theory and Deep Ecology." *The Trumpeter* 14, no. 4 (1997): 1-7 and Latour, *Never Been Modern*, 59-62.

<sup>114</sup> See Latour, "Plea for Earthly Sciences"; Latour, "How Better to Register the Agency of Things: Tanner Lectures. Part 1 'Semiotic'; Part 2 'Ontology,'" Lecture given at Yale University, 26th and 27th March 2014, forthcoming in a volume of Tanner Lectures, <http://www.bruno-latour.fr/sites/default/files/137-YALE-TANNER.pdf>; Latour, *Politics of Nature* and Latour, *Pandora's Hope*.

<sup>115</sup> See in particular points 6 and 7 of the deep ecology platform (Naess, *Ecology, Community and Lifestyle*, 29).

materialization of the subject that emerges from his relationism. Ecosophy might be worth re-exploring to answer the question about: what is wisdom at the *end of nature*.

#### REFERENCES

- Birch, Thomas H. 1993. "Moral Considerability and Universal Consideration." *Environmental Ethics* 15: 313-332.
- Brown, Charles S. and Ted Toadvine. 2003. *Eco-Phenomenology: Back to the Earth Itself*. Albany: SUNY Press.
- Cheney, Jim. 1987. "Eco-Feminism and Deep Ecology." *Environmental Ethics* 9: 115-145.
- . 1992. "Intrinsic Value In Environmental Ethics: Beyond Subjectivism and Objectivism" *Monist* 75, no. 2 : 227-235.
- Cheney, Jim and Anthony Weston. 1999. "Environmental Ethics as Environmental Etiquette: Toward an Ethics-Based Epistemology." *Environmental Ethics* 21: 115-134.
- Diehm, Christian. 2002. "Arne Naess, Val Plumwood, and Deep Ecological Subjectivity: A Contributon to the 'Deep Ecology-Ecofeminism Debate'." *Ethics & the Environment* 7, no. 1: 24-38.
- . 2006. "Arne Naess and the Task of Gestalt Ontology." *Environmental Ethics* 28, no. 1: 21-35.
- . 2010. "Minding Nature: Val Plumwood's Critique of Moral Extensionism." *Environmental Ethics* 32: 3-16.
- Eckersley, Robyn. 1992. *Environmentalism and Political Theory: Toward an Ecocentric Approach*. London: UCL Press.
- Heidegger, Martin. 1976. "La cosa." In *Saggi e discorsi*, translated by Gianni Vattimo, 109-124. Milan: Mursia.
- . 1976. "La questione della tecnica." In *Saggi e discorsi*, translated by Gianni Vattimo, 5-27. Milan: Mursia.
- . 1997. "L'epoca dell'immagine del mondo." In *Sentieri interrotti*, translated by Pietro Chiodi, 71-101. Firenze: La nuova Italia.
- Kohák, Erazim. 2000. *The Green Halo: A Bird's-Eye View of Ecological Ethics*. Chicago and La Salle: Open Court, Kindle edition.
- Kochan, Jeff. 2010. "Latour's Heidegger." *Social Studies of Science* 4, no. 4: 579-598.
- Krebs, Angelika. 1999. *Ethics of Nature: A Map*. Berlin - New York: Walter de Gruyter.
- Latour, Bruno. 1988. *The Pasteurization of France*. Translated by Alan Sheridan and John Law. Cambridge - London: Harvard University Press.
- . 1993. *We Have Never Been Modern*. Translated by Catherine Porter. London: Harvester Wheatsheaf.
- . 1998. "To Modernize or to Ecologize, That is the Question." In *Remaking Reality: Nature at the Millenium*. Edited by Noel Castree and Bruce Braun, 221-242. London - New York: Routledge.
- . 1999. *Pandora's Hope: Essays on the Reality of Science Studies*. Cambridge: Harvard University Press.
- . 2000. *Politiche della natura. Per una democrazia delle scienze*. Translated by Maria Gregorio. Milano: Raffaello Cortina Editore.



- . 2004. *Politics of Nature: How to Bring the Sciences into Democracy*. Translated by Catherine Porter. Cambridge-London: Harvard University Press.
- . 2005. "From Realpolitik to Dingpolitik or How to Make Things Public." In *Making Things Public: Atmospheres of Democracy*. Edited by Bruno Latour and Peter Weibel, exhibition catalogue, MIT Press.
- . 2010. "A Plea for Earthly Sciences." In *New Social Connections: Sociology's Subjects and Objects*, edited by Judith Burnett, Syd Jeffers and Graham Thomas, 72-84. London: Palgrave Macmillan.
- . 2010. "Coming Out as a Philosopher." *Social Studies of Science* 40, no. 4: 599-608.
- . 2010. *On the Modern Cult of the Factish Gods*. Durham - London: Duke University Press.
- . 2011. "From Multiculturalism to Multinaturalism: What Rules of Method for the New Socio-Scientific Experiments." *Nature and Culture* 6, no. 1: 1-17.
- . 2011. "Waiting for Gaia: Composing the Common World Through Arts and Politics." Lecture given at the French Institute, London, November, for the Launching of SPEAP (the Sciences Po Program in Arts & Politics). [http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP\\_0.pdf](http://www.bruno-latour.fr/sites/default/files/124-GAIA-LONDON-SPEAP_0.pdf)
- . 2013. "Another Way to Compose the Common World." Lecture given at an Executive Session of the AAA Annual Meeting, Chicago, 23rd November. <http://www.brunolatour.fr/sites/default/files/132-AAA-CHICAGO-PHIL-ANTH-2013.pdf>
- . 2014. "Agency at the Time of the Anthropocene." *New Literary History* 45: 1-18.
- . 2014. "How Better to Register the Agency of Things: Tanner Lectures. Part 1 'Semiotic'; Part 2 'Ontology'." Lecture given at Yale University, 26th and 27th March. To be published in a volume of Tanner Lectures. Manuscript: <http://www.bruno-latour.fr/sites/default/files/137-YALE-TANNER.pdf>
- Light, Andrew. 1997. "Deep Socialism? An Interview with Arne Naess." *Capitalism, Nature, Socialism* 8: 69-85.
- Maniglier, Patrice. 2014. "A Metaphysical Turn? Bruno Latour's *An Inquiry into Modes of Existence*." *Radical Philosophy* 187: 37-44.
- Naess, Arne. 1984. "A Defense of the Deep Ecology Movement." *Environmental Ethics* 6:265-270.
- . 1985. "Identification as a Source of Deep Ecological Attitudes." In *Deep Ecology*, edited by Michael Tobias, 256-270. San Diego: Avant Books.
- . 1985. "The World of Concrete Contents." *Inquiry* 28, no. 4: 417-428.
- . 1988. "Dall'ecologia all'ecosofia, dalla scienza alla saggezza." In *Physis: Abitare la terra*, edited by Mauro Ceruti and Ervin Laszlo, 455-465. Milano: Feltrinelli.
- . 1993. "Intrinsic Value. Will the Defenders of Nature Please Rise." In *Wisdom in the Open Air. The Norwegian Roots of Deep Ecology*, edited by Peter Reed and David Rothenberg, 70-82. Minneapolis: University of Minnesota Press.
- . 1995. "The Apron Diagram." In *The Deep Ecology Movement: An Introductory Anthology*, edited by Alan Drengson and Yuichi Inoue, 10-12. Berkeley: North Atlantic Books.
- . 1997. "Heidegger, Postmodern Theory and Deep Ecology." *The Trumpeter* 14, no. 4: 1-7.
- . 1989. "Ecosophy and Gestalt Ontology." *The Trumpeter* 6, no. 4: 134-137.
- . 1992. "The Encouraging Richness and Diversity of Ultimate Premises in Environmental Philosophy" *The Trumpeter* 9, no. 2: 53-67.

- . 2002. *Life's Philosophy: Reason and Feeling in a Deeper World*. Athens - London: University of Georgia Press.
- Plumwood, Val. 1991. "Nature, Self, and Gender: Feminism, Environmental Philosophy, and the Critique of Rationalism." *Hypatia* 6, no. 1: 3-27.
- . 2002. *Environmental Culture: The Ecological Crisis of Reason*. London - New York: Routledge, Kindle edition.
- Rovatti, Pier Aldo. 2007. *Abitare la distanza*. Milano: Cortina.
- . 2011. *Inattualità del pensiero debole*. Udine: Forum.
- Sessions, Robert. 1991. "Deep Ecology versus Ecofeminism: Healthy Differences or Incompatible Philosophies?" *Hypatia* 6, no. 1: 90-107.
- Soper, Kate. 2004. *What is Nature? Culture, Politics and the Nonhuman*. Oxford-Malden: Blackwell.
- Vattimo, Gianni and Pier Aldo Rovatti. 2011. *Il pensiero debole*. Milano: Feltrinelli.
- Vogel, Steven. 1998. "Nature as Origin and Difference: On Environmental Philosophy and Continental Thought." *Philosophy Today* 42, supplement: 169-181.
- . 2002. "Environmental Philosophy After the End of Nature." *Environmental Ethics* 24: 23-39.
- . 2003. "The Nature of Artifacts." *Environmental Ethics* 25: 149-168.
- Zimmerman, Michael E. 1994. *Contesting Earth's Future: Radical Ecology and Postmodernity*. Berkeley: University of California Press.