

- Wormbs, Nina. 2003. *Vem älskade Tele-X? Konflikter om satelliter i Norden 1974–1989*. Hedemora: Gidlund.
- Wormbs, Nina and Gustav Källstrand. 2007. *A Short History of Swedish Space Activities*. Noordwijk: European Space Agency.
- Wright, Martin and Judith Bell. 1988. *Revolution in the Philippines? Keesing's Special Report*. Harlow: Longman.

## 8 Resistance in the garden

### Nature and society in the Anthropocene

*Davide Scarso*

#### Introduction

The notion that human activities have attained a dramatic influence on life systems at a planetary scale is at the core of the proposal of the “Anthropocene” as a new geological age. For many, particularly in the human sciences, this entails a troubling blurring of the distinction between natural processes and the sphere of human relations, a dualism often deemed as one of the pillars of modern thinking (Chakrabarty 2009; Latour 2010). In order to be up to the challenges of the Anthropocene, or more in general of the profound changes in the functioning of climate regulations and other crucial Earth systems, the distinction between nature and the social should be reanalysed, critiqued and, eventually, disposed of. The proposal of the Anthropocene has met with several negative reactions and rebuttals (Wuerthner, Crist and Butler 2014; Suckling 2014; Haraway 2015; Hartley 2015; Moore 2016). In this chapter, we discuss not so much the refusal of the Anthropocene but more specifically the refusal of the need for or the opportunity of reassessing the difference between natural and social processes. While often interrelated, the two issues should not be conflated. One can believe that the opposition of nature and social life should be radically critiqued, at least in its mainstream incarnations, but should oppose or critique the Anthropocene proposal (Bonneuil and Fressoz 2016; Moore 2016). And, as arguably most Anthropocene scholars are from the natural sciences, one can be a strong supporter of the Anthropocene idea while maintaining, more or less explicitly, the general notion of a sphere of natural processes that are inherently, or ontologically, different from social affairs (or, to put it differently, that social affairs are inherently human).

We will then take into consideration two forms of refusing the reassessment or overcoming of the nature and culture divide that, in being particularly articulated and resonant, may be considered exemplary. They are also particularly interesting given their difference: apart from sharing a common dislike of the many contemporary theories that undermine the nature and society dualism, they could not seem more removed from each other. The first rebuttal is the “Half-Earth” proposal by US biologist Edward O. Wilson, fully developed in his 2016 eponymous book, while the second is the restoration of dialectical materialism by Swedish historian Andreas Malm in *The Progress of this Storm*.

### Fifty per cent, or to each his own

Wilson, a sincere humanist and progressive thinker, argues the case for the protection of world biodiversity with the “Half-Earth Project”, to which he dedicated several interventions (Wilson 2016b, 2017), a book (Wilson 2016a) and a website ([www.half-earthproject.org/](http://www.half-earthproject.org/)). The idea, in a nutshell, is this: “committing half of the planet’s surface to nature” (Wilson 2017, 7). We need large areas of untrammelled nature in order to protect biodiversity, areas bigger than common parks and reserves. Perhaps more than 50 per cent is needed, but surely not less than that (plus, at least since Aristotle, halfway seems a reasonable compromise). In order to secure a liveable planet for future generations, in fact, at least 50 per cent of the whole of Earth must be dedicated to wild nature, or more exactly, to areas in which “biodiversity is to be returned to the baseline level of extinction that existed before the spread of humanity” (Wilson 2016a, 167).

Wilson, however, is not pointing at a nostalgic return to pre-modern techniques of social organization and to some sort of divinization of nature. On the contrary, in the other half of the world – “our” half so to speak – technological progress should be encouraged and increased, precisely in order to achieve “an authentic, predictive science of ecology”. To attain a “sustainable Eden” we should not restrain from the plastic possibilities of synthetic biology, which is “the manufacture of organisms and part of organisms”, in case you are asking. Only by promoting radical advances in biological research will reason finally triumph over superstition: “the goal is practicable because scientists, being scientists, live with one uncompromising mandate: Press discovery to the limit” (Wilson 2016a, 197).

To some extent, one may say that his proposal offers a salomonic solution to the decade-long struggle between biocentric and anthropocentric approaches to environmental issues.

Wilson’s proposal literally cuts the Gordian knot in two, reserving half of the Earth’s land and sea for a radically eco-centric approach while leaving the other half to the free development of human affairs: politics, history, science, technology, the arts, etc. – sort of unilateral, and hopefully final, truce after several centuries of human attacks on the natural world.

It should not be a surprise that for Wilson, the most insidious threat is not so much the globalization of neoliberal capitalism, for instance, or rampant industrialization or growing urbanization, but, rather, the argument according to which “pristine nature no longer exist, and true wilderness only survive as a figment of imagination” (Wilson 2016a, 74). In a chapter aptly entitled “The most dangerous worldview”, Wilson stigmatizes the “new Anthropocene ideology”, which by accepting that the natural world has become irremediably enmeshed with human affairs conveys a delusion of control while actually continuing to spiral towards self-destruction. Wilson mentions in particular Peter Kareiva, “a leading light of the ‘new conservation’ philosophy” and “leader of those who attack the existence of wilderness” (Wilson 2016a, 77).

In a way, Wilson’s “Half-Earth” plan does not reject a form of eco-modernism provided that the “eco” part and the “modern” part are separated and that each

has its own special area. What he finds troubling is the idea that ecosystems may be considered as potential objects of intervention according to specific human needs to be negotiated on a case-by-case consideration. As a good scientist, he recognizes that we do not really know everything about natural processes, that the “webs of life” are still in great part unknown, and that more research is needed. This is why he is not really calling for complete and sustainable management, since one cannot effectively manage something whose inner workings one does not fully understand. His point is to have areas as large as possible in which natural processes may occur as though no intentional intervention by human beings had ever taken place. Thus, he acknowledges that his “Half-Earth” plan will include some quite significant human intervention, but their exclusive objective is to undo previous more or less deliberate deviations brought about by the activities of human beings. Portraying this as management would introduce a discussion about goals and objectives, and perhaps even – heaven forbid – politics, which in the end is invariably human-centred.

Wilson’s “Half-Earth” proposal results precisely from the refusal of a possible compromise between nature and culture, “a place where we can meet nature halfway”, as Pollan would put it (1991/2003, 64). Nature is, by definition, that which is not human, human-made or human-influenced. Rather than the half-wild gardens scattered here and there (Marris 2011), the biologist, as we saw, believes we must arrive at restoring and protecting a wild half of the planet. The protection of biodiversity is as essential for humanity’s survival as it is for life on Earth, so – apart from the necessary technical issues, for which further research is very much needed – there is no point in discussing options, choices or values: “To strive against odds on behalf of all of life would be humanity at its most noble” (Wilson 2016a, 4). And it would be difficult to find sound arguments to argue against the protection of “all life”.

The Half-Earth project website, which informs us that American singer Paul Simon dedicated his last tour to fundraising for Wilson’s initiative, is also asking its visitors, identified as “global citizens”, to sign a “pledge”. There is no information as to how many visitors have taken the vow. However, the online activist website Avaaz launched a similar petition in late 2016 to which, by the end of July 2018, more than 1.6 million individuals from all over the world had signed up.<sup>1</sup> The petition, which aims to achieve one million signatures and is getting a new one more or less every ten minutes, is directed at “world leaders”, prompting them to “protect half of our planet”. The explanatory text accompanying the campaign begins with a few paragraphs in quotation marks and in the first-person plural, supposedly exemplifying a direct speech from those sustaining the campaign. It reads as follows:

We global citizens are deeply concerned by scientists warning that ecosystems critical to sustaining life on Earth could collapse in our lifetimes. We call on you to meet existing targets to protect biodiversity, forge a new agreement so that at least 50% of our lands and oceans are protected and restored, and ensure our planet is completely sustainably managed. This

must take into consideration the needs of human development, and have the active support of indigenous peoples. This long-term goal for nature can restore harmony with our home.

(Avaaz 2016)

The remaining text, without the quotes and not in italics, elaborates further: "By 2020 two thirds of wild animals will be gone", say the petitioners, because, with a quite vivid metaphor, "humanity is taking a chainsaw to the tree of life". However, not everything is lost, as "top scientists are backing an ambitious plan to put half of our planet under protection". Furthermore, "[scientists] say if we do it wisely, in a way that protects indigenous people from exploitation and land grabs, we can save 80–90% of all species!" (Avaaz 2016).

Although not explicitly mentioned, there is no doubt that "top scientist" Edward O. Wilson is the main source of inspiration for the Avaaz petition suggesting that half of our planet should be "put under protection". With its cursory homage to "indigenous people", to which we will return, it is worth noting that Avaaz's petition is structured as a discourse between "global citizens" and "world leaders", without any political context or references to any sort of mediating institution. It is a huge number of individuals addressing their "leaders", whoever and wherever they are, and the only thing these "global citizens" have in common, apart from being human earthlings, is that they have signed the petition and, therefore, share its content. But the "post-democratic" character of this discourse does not end here. The aim of the petition is not so much to put pressure on "world leaders", but rather to "make this solution so famous, our leaders can't ignore it" (Avaaz 2016). That is to say, "world leaders" should adopt the solution not because many people are asking them to do so but because, once they have had the chance to know it, they could not possibly fail to see that, being formulated by "scientists" (even better, "top scientists"), it is inherently good for everybody. The matter of how and by whom it may come to be implemented is almost irrelevant.

Wilson's Half-Earth proposal shares in large part this "post-democratic" attitude. As a matter of fact, the term "politics" never appears in the book, while nine times out of ten the adjective "political" occurs as part of the expression "political leaders". According to the biologist, a "sustainable Half-Earth system" would have its natural institutional foundation in the World Heritage Fund of UNESCO. As we know, by the end of 2017 President Trump had withdrawn the USA from UNESCO based on an alleged anti-Israel bias (Ronald Reagan did the same in the 1980s because of its alleged pro-soviet bias). While in both cases complex networks of national and international interests were crucial, both depicted their decision as a reaction to the political non-neutrality of UNESCO's actions. But the fact is precisely that protection and conservation, for cultural but also for natural sites, will seldom be socially and politically neutral (Silberman 2013). For Wilson, as for many others, in making the distinction between natural phenomena and the social world as a backdrop, environmentalism is inherently non-partisan and its actions not only can but should

transcend politics and democratic practices. Environmental actions are guided by science and technology, and no other engagements have such an alleged "rational and neutral basis" (Armiero 2015). Michael Pollan, who, already in 1991, argued that the notion of wild or pristine nature was acting as a "taboo" and a "profoundly alienating idea" struck a chord when he acknowledged that it often acted as "a check on our inclination to dominate and spoil nature" (Pollan 1991/2003, 214). This is precisely why many conservation biologists and deep-ecologists share a "biocentric" approach to environmentalism. The inherent, "sacred" value of nature lies precisely in it not being human, and just as human affairs are contingent and, in the end, always open to discussion, so nature is entirely in itself, self-contained and amoral.

The "Protect Half of Our Earth" petition mentions the need to "have the active support of indigenous peoples" (Avaaz 2016), a reference that was probably due to the absolute lack of any reference to it in Wilson's discourse. Native people are mentioned only once in Wilson's book, when he observes that "wildernesses have often contained sparse populations of people, especially those indigenous for centuries or millennia, without losing their essential character" (Wilson 2016a, 77–78). Those "sparse populations" are defined precisely by the fact that they somehow manage to live a human life without depriving the wilderness of its essence. Critics of the "Half-Earth" proposal highlighted that in the case of Mozambique's Gorongosa Park, for example, pointed out as a model of successful conservation by Wilson, the strong opposition from local communities was completely disregarded (Büscher and Fletcher 2016). Considering that "most existing 'wilderness' parks have required the removal or severe restriction of human beings within their bounds" (Büscher and Fletcher 2016), the lack of any reference to the social, political (and even military) implications of the "Half-Earth" plan is remarkable (Dowie 2005, 2009).

From this point of view, the "rambunctious gardens" of the Anthropocene seem to offer more space to a political discussion that takes into account the entanglements of ecosystems and social formations. If there is no objective and undisputable notion of what nature is and different natural areas can be dedicated to different ends, at least some debate and negotiation will be needed in order to assess this. As Marris (2011, 170) puts it: "*Society must decide what its goals are on multiple scales, then allocate the best-suited land to these various goals and get going, not shying away from the occasional bold experiment.*" Framing environmental issues in terms of options and goals seems to open up more space to political confrontation than referring to humankind or life as such. This is what political ecologists have shown. But when we say that "society must decide" or that priority should be given to the protection of ecosystems "that benefit us", we are implying that social relations forms an organic unity in which decisions are made for the benefit of all of its members, and that the "we" of "society" is a rather straightforward and generalizable notion. This, however, is unproblematic only within the limits of a – rather naïve – deliberative concept of politics, in which all different participants are duly represented and all possible options are clearly stated and accessible.<sup>2</sup>

### Smashing the framework

To sum up the situation, the climate is warming because many people have burnt and keep burning a lot of fossil fuels which brought atmospheric CO<sub>2</sub> to levels that, given its greenhouse effect, are incompatible with the relatively stable climate of the Holocene. The climate does not change in a linear fashion and several feedback effects may bring about abrupt changes in climate regime, and possibly even lead to runaway global warming (Goldblatt and Watson 2012). A gradual phase-out of fossil fuels on a global scale seems presently either unlikely or much too slow; thus, according to Swedish historian Andreas Malm, the only way to avoid warming levels that would be catastrophic for human societies is immediate direct action, i.e. "smashing the fossil infrastructure" (Malm 2018, 155). The contemporary arguments for overcoming or at least blurring the distinction between nature and society (social constructionism, actor network theory, new materialism), despite their fashionable radical allure, are actually hindering the conditions that allow or instigate direct action. These conditions, Malm argues, are on the contrary maximized by Marxist dialectical materialism, which rests on a clear-cut distinction between nature and society considered as opposite poles in a reciprocal relationship: "As William Petty says, labour is the father of material wealth, the earth is its mother" (Marx, referenced in Malm 2018, 159). The different brands of "hybridism", arguing that the distinction between the sphere of natural phenomena and that of social relations has become blurred, or never actually existed, are either reducing the former to the latter, as do social constructionists, or are depriving the social or human pole of its defining attribute, that is, agency. These would be playful intellectual vagaries were they not applied to climate change, as their proponents stubbornly insist on doing. A "hybridist" approach to climate change would mean either that global warming, being socially constructed, can be simply evacuated by a conceptual effort or that, as natural processes have their own agency, there is no point in fighting or even opposing it (see Malm (2018, 149–156) for a succinct recapitulation of the general argument).

Malm is right in pointing out the fact that often professing the end of the distinction between nature and society, or the need to overcome it, has become an intellectual cliché and an empty gesture (see Ingold 1996; Scarso 2013). In the human sciences, it generally means simply that nature has been absorbed by an all-encompassing sphere of social meanings and interactions, and vice versa, in the natural sciences.

He argues, however, that any hesitation as to the universal and trans-historical character of the distinction between nature and society necessarily entails a position in which any difference among the entities that populate reality is elided, in what some call a "flat ontology". Arguing that the characteristics of the elements that compose a given state of things cannot be judged aprioristically, and without taking into account the very state of things in which they are involved is subtly but radically different from believing that those components are precisely equivalent to the point of being indistinguishable. To

say that two things are not necessarily different does not mean those two things are necessarily the same.

To show how something may result from the combination of elements pertaining to different categories without entailing that those categories are thus rendered irrelevant or nonexistent, Malm gives the example of the Druze faith, "in which doctrines of Hindu, Shi'ite, Platonic, Gnostic, Christian, Pythagorean, Jewish and other provenances are drawn together" (Malm 2018, 48). By the fact that all those different sources are incorporated into a new synthesis, a scholar of the Druze faith would not feel compelled to dispose of the categories of Platonism, Shi'ism, Gnosticism, etc. But what this example makes clear is that Malm does not believe that the Druze "belief system" has the same originality and autonomy – let us say the same ontological status – as that of the sources it brings together. Platonism and Shi'ism are apparently well-defined and self-sustained cores of meaning that do not derive their existence from outer sources; they subsist by themselves or, in other words, are substances. Not so for the Druze faith, which is essentially derivative; however novel the combination it produces, it does not constitute a substance and is thus necessarily accidental. Perhaps this is due to the fact that the Druze faith came *after* Christianity, Platonism, Shi'ism, etc., and it is thus a subsequent patchwork of different traditions. But – and lacking any special knowledge on the issue I am speculating about – perhaps one should not exclude beforehand the hypothesis that the Druze system revealed some affinities and reciprocal influences among its sources, or maybe even common theological nuclei that were around before they became formalized in one or the other of those traditions. Speculations aside, for Malm there are things that belong entirely to certain given categories and then these things may combine and give way to new composite entities. He admits that the combinations of natural and social elements could very well be called hybrids, had not the term already been hijacked by Latour and his acolytes and with certain caveats. Malm's combinations could indeed be labelled hybrids, provided that the hybrids' existence did not call into question the elements that composed it, as apparently contemporary "hybridists" argue, just as a mule does not disprove that donkeys and horses are different species (this would entail excluding hybrid speciation and, more in general, assuming that the concept of species is relatively straightforward). In particular, most of what exist can be divided into two reciprocally exclusive main groups, namely nature and society, everything else being the result of the interaction among different elements belonging to one of those two groups. Cartesian dualism, however, the pet hate of postmodern critique and of ecological thinking, looms large. While the author agrees that Descartes' ontological dualism may be the most relevant root of the illusion of radical detachment between human affairs and the surrounding natural phenomena, he argues that the refusal of Cartesianism does not necessarily have to result in ditching any form of distinction between mind and matter.

According to Malm, by eliding the difference between mental phenomena and material substrata or, more broadly, between nature and society, one would miss the specificity of human agency and surrender to political powerlessness.

This is why he adopts “substance monist property dualism” (Malm 2018, 53), a subtle metaphysical position in which, while acknowledging the common belonging of all that there is to one and the same substance (i.e. matter), it also acknowledges that some of what there is may be endowed with properties not found elsewhere. Reviving a long tradition of human exceptionalism, which has somewhat fallen into disgrace in recent years, Malm defends that human beings possess the unique and distinctive capability of mental experience and that this sets them apart from all other natural phenomena. Although the mind is not some mysterious gift from God bestowed upon them but an emergent property of certain organic processes, it is because they have a mind and can thus intentionally shape their actions that human beings act upon nature. Humankind then entertains a paradoxical relationship with nature, as that to which it belongs – human beings do have organic bodies and live in a material world – but at the same time “that from which it seems excluded in the very moment in which it reflects upon either its otherness or its belonging” (Soper, cited in Malm 2018, 67). In order to trace what he considers to be a neat distinction between natural phenomena and human actions, and through an extended review of recent debates in the area of philosophy of mind, Malm adopts quite vehemently the definition proposed by Kate Soper: nature is

[T]hose material structures and processes that are independent of human activity (in the sense that they are not a humanly created product), and whose forces and causal powers are the necessary conditions of every human practice, and determine the possible forms it can take.

(Malm 2018, 28)

This is why climate change, for instance, is not a social construction. If to construct something is “to inaugurate a product which previously did not exist” (Soper, cited in Malm 2018, 38), it is quite self-evident that no human being participated in the inauguration of the Gulf Stream or created CO<sub>2</sub> so that it traps heat in the atmosphere. By burning enormous quantities of fossil fuels some human beings influenced and altered these mechanisms, but they did not create them. In other words, certain natural processes have been radically altered by some other and quite distinct social processes, but they have not been constructed or created.

While apparently quite straightforward, the distinction is not without its problems. The human body, for instance, is by all means a natural entity, often regarded precisely as the most eminent proof of the fact that human beings belong to nature. It could be considered a “social construct” only in its cultural and symbolic interpretation, not in its “functioning”. But take human bipedalism. The capacity of moving by means of two legs is an essential feature of human beings and had a crucial impact on human evolution. Bipedalism, however, is not exactly an innate, or “natural”, feature. As a dramatic case of early neglect in orphan children showed (Tardieu 2012), infants who are not guided and supported by a significant caregiver in their attempt to walk upright

do not develop bipedal locomotion. And if they do not “learn” to walk at a certain sensitive age, their skeletons will develop in such a way as to make upright walking physically impossible (Tardieu 2012). This means that the modern human body, in order to fully develop, needs the presence of child rearing, and thus of a social life, however minimal. One could argue, therefore, that some form of social behaviour pre-existed, or co-existed with, the development of a phenomenon considered natural, namely the current average structure and functioning of the human body.<sup>3</sup> This is to say that labels such as “society” and “social relations” may not necessarily constitute a coherent and well-delineated category of phenomena that somehow emerged from natural processes a few millennia ago and has since then maintained its unaltered general properties through innumerable different manifestations. Quite surprisingly for someone so well read in what he calls “the Marxist canon”, terms like “society” and “social” (as well as “human”, “mind”, “history”, etc.) are somehow exempt from any form of ideological implication or historical consideration. Primitive human groups probably lived “fettered to the moment and its pleasure and displeasure”, as Nietzsche says about cattle in the *Untimely Meditations*, but since they left their prehistorical and pre-social bliss, their social and historical beings have become their permanent and inherent feature. While paying lip-service to historical consciousness, because everybody knows that social configurations do change, the very category of the social is to some extent “naturalized”. On the contrary, far from being a neutral and objective concept, the very notion of an autonomous and self-contained sphere of “social relations” is deeply rooted in the genealogy of modernity, and served, and continues to serve, specific ideological functions, which Malm’s binarism renders impossible to evaluate critically.

Setting aside the metaphysical subtleties of property dualism,<sup>4</sup> the naturalization of the social underpins much of Malm’s intransigent and negative militantism. As we saw, hybridism implies the dissolution of any distinction between nature and society, and this is bad because it blurs what one can or cannot do. If one sets out to draw a theory that may encourage and sustain militant action, one should recognize that “Nature is real; nature and society form a unity of opposites; society is constructed” (Malm 2018, 156). Following Kate Soper, nature is that which is independent from human action and that is not a human product. This is why natural processes are unalterable and one cannot change the fact that water freezes at zero degrees Celsius, for instance. Society is pretty much all of the rest; that is, all that which is dependent on human action and is by its essence the object of human intervention. Natural substrata dictate several general guidelines, which leave however plenty of space for human beings to shape their collective lives in many different ways. Climate change is precisely the result of a specific historical formation, capitalism, and more specifically the fossil economy, having crossed a few of those guidelines and upset the mechanisms of climate regulation that characterized the Holocene. Summing up his position, Malm (2018, 156) writes: “agency cannot be found in inanimate matter but may still appear among human collectives, which can

potentially target the incumbent technology that embodies social power – these are some of the necessary premises for an activist theory”.

Climate change is already threatening the subsistence of the poorest communities at the periphery of capitalist affluence and, in the longer term, the very existence of complex societies, so Malm’s resolute call to direct action is an honourable stance. The point is that, despite his frequent reference to the “Marxist canon” and his persistent “Marxist parlance”, his argument does not sound particularly Marxist, much less Marxist dialectical materialism. Believing that capitalism fosters inequality and is based on a prospect of continuous economic growth that is incompatible with life in a finite world, saying that a radical change of paradigm is urgently needed and manifesting a lack of faith in the transformative potential of representative democracy do not guarantee, by themselves, a certificate of Marxism. The fact that such beliefs are shared by people as different as George Monbiot (2018), Paul Kingsnorth (2013) and Mayer Hillman (Barkham 2018) is telling, as is the fact that Malm indicates Naomi Klein’s *This Changes Everything* and Carolyn Merchant’s *Death of Nature* as essential references in the ecological Marxist canon. These two books are inescapable contributions, respectively, to climate activism and to the history of the attitudes towards nature and gender that stand by themselves and to which Malm’s Marxist stamp of approval does not provide any added value. Anti-capitalist and ecological activism are by all means honourable ethical positions but, unless accompanied by an analysis of the relations between the forces at play and the evidence that their structure and contradictions are creating the conditions for the overturning of those relations into a society liberated from human and natural exploitation, they do not seem to have any specific “Marxist import”. Calls to “smash [...] the framework” or to “expropriate the 1%” building on rage and panic for a warming climate, in which a “fringe of more or less deviant personality types ready to act” (Malm 2018, 137, emphasis in original) will one day “combine” with the masses expropriated by global warming, with no further qualifications, is pure voluntarism. To leverage social unrest caused by climate disaster for a revolutionary intervention against the fossil economy as an opportunity to deploy “a conscious programme aimed at creating or remodeling whole social structures” (Anderson, cited in Malm 2018, 118), out of pure goodwill is – here literally – unbridled social constructionism “in Marxist garb”. Even if one concedes that “[o]bjectively speaking [...] the liberation of nature is a global class demand” (Malm 2018, 208), unless the class of those who are expropriated by climate change are the carriers of the values of the coming liberated society (and not only “objectively”), revolutionary activism is nothing more than voluntarism.

It is also interesting that Malm (2018, 227) concedes that, if things turn uglier than expected from the point of view of climate, “a detour of fighting for a planned phase-out of solar radiation management” could constitute part of the “revolutionary project for the next few centuries or so”. There is no mention as to what powers, forces, institutions or social arrangements may implement a “solar radiation management” (which is geoengineering, in case you are asking),

for several centuries and supposedly on a global scale, and who and why would then plan its “phase-out”. Admittedly, a world without fossil fuels and climate warming would be better than this one, but nothing tells us it would be inherently non-capitalistic, less unfair or more ecologically minded. Unless one considers, as Malm does in a reference to Klein, that “[t]he power of the sun, wind, and waves can be harnessed, to be sure, but unlike fossil fuels, those forces can never be *fully possessed*” (Klein, cited in Malm 2018, 228, emphasis added). Thus, given their “inappropriable” character, shifting to renewable sources would per se imply a change in power relations between nature and human society (and perhaps, who knows, also between classes). Considering, however, how hydroelectric power has been a staple of nationalism and imperialism (Pritchard 2012), for instance, and that there is no reason to believe that capitalism is *inherently* incompatible with renewable energies, this sounds like well-intentioned wishful thinking rather than “Marxist parlance”.

## Conclusions

As we have seen, Andreas Malm believes that blurring the frontier between nature and society would be fatal for the future of humankind. While he admits that this does not mean “of course that a warming planet can be literally cut in two halves”, he argues that “the *analysis* of it must execute a similar operation” (Malm 2018, 75–76, emphasis in original). Even though, apparently, on a radically different plane, Wilson also feels the need to clarify that his solution “does not mean dividing the planet into hemispheric halves” (Wilson 2016a). Despite their differences, they share the notion that, though broad categories such as these are difficult to pinpoint, nature and society are nonetheless defined by their mutual exclusion, an exclusion that should be upheld, as we saw, analytically for Malm and quite literally for Wilson. For both, it is natural that which is not human just as it is specifically human that which is not natural, and we should keep it that way. Furthermore, precisely because of its inhuman character, nature is – again, by definition – an independent, self-sufficient and non-contingent sphere, it is made up of mere facts and leaves no room for choices and values. Society, on the contrary, is essentially multi-form, mutable and, therefore, historical and political.

Along with these basic assumptions, Wilson and Malm share also a rather patronizing and dismissive attitude towards indigenous groups. We have seen that the Half-Earth project basically ignores the fact that its implementation would entail the removal and forced transference of many communities now living in the areas to be “put under protection”. The “non-natural” half of the world would probably have to take in millions of “conservation refugees”.<sup>5</sup> Environmental journalist Jeremy Hance (2016) quotes Wilson as saying that native communities “are often the best protectors” of their own lands; thus, according to him, reserving half of the planet to nature “would not simply mean banning people from half of the planet’s land area, but keeping these areas undeveloped”. This means that he ignores, or perhaps downplays, the



environmental import of indigenous practice like slash-and-burn agriculture, hunting, or even just tending gardens or involuntarily dispersing certain seeds (on this, see Kawa 2016). But this also means that if an indigenous person had the terrible idea of taking up a gasoline chainsaw, a rifle or a smartphone, he or she would instantaneously cease to be indigenous, at least in Wilson's eyes. This makes perfect sense once you consider that, for Wilson, indigenous people are those human groups that somehow manage to inhabit wild nature without spoiling its very wildness. Again, real nature is the non-human, which is why, according to the Half-Earth project, in the 50 per cent of the Earth's surface to be devoted to nature, "biodiversity is to be returned to the baseline level of extinction that existed *before the spread of humanity*" (Wilson 2016a, 167, emphasis added).

The dialectical character of the relation between nature and society, according to Malm's argument, is equally hinged on a mutual definition of the two poles; one is what the other is not, like – to use a somewhat worn-out metaphor – black and white. And we find an equally dismissive attitude towards indigenous groups. Perhaps "cultures" where "no boundaries are drawn between the social and the natural" have been common in human history, but this "hardly ratifies them" (Malm 2018, 173). Embracing cultural diversity as such would lead "down the slope where everything and nothing is true and false at the same time" (Malm 2018, 173). The social pole is intrinsically subjective and polymorphous; there is nothing that is not contingent, except the fact that it is not natural. The distinction between nature and society itself is not cultural, but transcendently true, so to speak. So, indigenous people may carry on with their "animist ontologies", which can eventually represent a sort of "fellow traveller", but the real commitment should be "revolutionary ecological practice" (Malm 2018, 174). Again, the notions of distributed and non-human agency are often invoked as empty slogans, and, even more to the point, what Malm calls "double monism" and flat ontology really run the risk of depoliticizing social and environmental issues. I believe, however, that the most interesting thinkers in the Anthropocene debate, first and foremost Bruno Latour, are not aiming at a flat ontology, a double monism or, even less, social constructionism. The critique of "the Great Divide" (Latour 1993) between nature and society is aimed at multiplying differences, not eliding them. The entities that correspond to the traditional categories of nature and society do not disappear suddenly, nor are they simply blended into a formless goo, but may be decomposed and redistributed according to different, and contextual, criteria (Latour 2014). During his time among the Ojibwa people in northern Canada in the 1940s, the North American anthropologist Alfred I. Hallowell questioned an elder informant about his "animist" beliefs: "Are *all* the stones we see about us here alive?" After lengthy reflection the elder man replied, "No! But *some* are" (Hallowell, cited in Ingold 2000). I believe this is a good way of saying that agency should not be considered as the permanent attribute of a certain class of entities, be they human or not, but as a relational or contextual property of certain entities as they enter the composition of certain assemblages. As historian Timothy

Mitchell would say, agency is always hybrid, which does not mean that it is undifferentiated and more or less equally distributed. On the contrary, human beings always tap into non-human forces and energies in order to pursue their goals, and it is not any goal that is allowed by the force they tap: "So-called human agency draws its force by attempting to divert or attach itself to other kinds of energy or logic" (Mitchell 2002, 29).

I believe that critical thinking, coming from any disciplinary area, should attend to the strange partnerships between humans and non-humans that have constantly been made and rearranged through history. In particular, we should follow closely all the situations in which this partnership is being renegotiated, where its present forms are in crisis and where maybe some of its new forms are being resisted and opposed. This is where indigenous people come in. Not because they happen to live in that other half of the planet which is more green than ours, so they should be asked permission, but because their fight for their land and for their relationship with their land represent an extreme point of resistance to capitalist development, perhaps to modernity as such, that force us to call into question many of our political and environmental assumptions. Member of indigenous groups risk their lives every day while they protect their land from loggers and developers. They also fight for representation, for their rights to autonomy and self-determination to be acknowledged, for their demands to be represented by the government institutions that administer the territories in which they live. But one could say that theirs is not only an inescapable political and environmental struggle but a form of cosmopolitical resistance. Amerindian thinking is not merely an example of a different "representation" of nature, but a difference that resists representation itself, just as their fight is a form of "irrepresentable" resistance. There are many places in which the relationship between nature and the social world is being reassessed and reworked, with different implications and different intensities, often calling directly into question the powerful effects of scientific expertise and modern political categories. Think of any conservation or re-wilding project, local communities fighting water, air or land pollution in their area, even something a little crazy like resistance to obligatory human vaccines. Critical thinkers should follow closely all these shifting and impure points of friction, and participate in the creation of platforms and concepts that may allow us to properly analyse and comprehend their implications, because it is there that new political perspectives, and new forms of collective freedom and emancipation are possibly being opened.

### Acknowledgements

FCT MCTES – Project PTDC/IVC-HFC/6789/2014 – ANTHROPOLANDS – *Engineering the Anthropocene: The Role of Colonial Science, Technology and Medicine on Changing of the African landscape.*  
FCT MCTES – Project PEst-OE/HIS/UI0286/2014.

## Notes

- 1 Avaaz's petition web page is not dated; however, the oldest records available through a web search go back to November 2016.
- 2 The Breakthrough Journal shows a growing concern with the political implications of environmentalism, to the point of declaring that "nature is political" and that "the impulse to naturalize [...] is a power-play" (Brush and Nordhaus 2018). Nevertheless, even the issue on "Democracy in the Anthropocene" (2017) brings little light in this regard.
- 3 The same argument could be extended to other characteristics of the human body such as the size of the head, and related difficulties at birth, or prolonged infancy.
- 4 It is particularly difficult to follow Malm when, after arguing for several pages that human behaviour has a material substratum but is set apart from nature because of its intentional or mental character, he concludes that the whole issue of causal interaction is moot, "for social properties are not immaterial or mental any more than natural ones are" (Malm 2018, 65–66, emphasis in original).
- 5 According to Mike Dowie (2005), an estimated 20 to 50 million people have been evicted in the creation of protected areas at a global level (Dowie 2005). Earlier research (Geisler and De Sousa 2001), which focused exclusively on the case of Africa, put the number of "environmental refugees" at 15 million.

## Bibliography

- Armiero, Marco. 2015. "Ribelli. Naturalmente". In *La Contestazione Ecologica: Storia, Cronache e Narrazioni*, edited by Giorgio Nebbia (pp. 10–26). Naples: La scuola di Pitagora.
- Avaaz. 2016. "Avaaz – World Leaders: Protect Half Our Planet". Avaaz. [https://secure.avaaz.org/campaign/en/protect\\_half\\_our\\_planet\\_loc\\_sus/](https://secure.avaaz.org/campaign/en/protect_half_our_planet_loc_sus/).
- Barkham, Patrick. 2018. "We're Doomed: Mayer Hillman on the Climate Reality No One Else Will Dare Mention". [www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention](http://www.theguardian.com/environment/2018/apr/26/were-doomed-mayer-hillman-on-the-climate-reality-no-one-else-will-dare-mention).
- Bonneuil, Christophe and Jean-Baptiste Fressoz. 2016. *The Shock of the Anthropocene: The Earth, History, and Us*. London: Verso.
- Brush, Emma and Ted Nordhaus. 2018. "Nature Wars". *The Breakthrough Journal*, 9. <https://thebreakthrough.org/journal/no.-9-summer-2018/from-the-editors2>.
- Büscher, Bram and Robert Fletcher. 2016. "Why E.O. Wilson Is Wrong about How to Save the Earth". Aeon. <https://aeon.co/ideas/why-e-o-wilson-is-wrong-about-how-to-save-the-earth>.
- Chakrabarty, Dipesh. 2009. "The Climate of History: Four Theses". *Critical Inquiry* 35.
- Dowie, Mark. 2005. "Conservation Refugees". *Orion Magazine*. <https://orionmagazine.org/article/conservation-refugees/>.
- Dowie, Mark. 2009. *Conservation Refugees: The Hundred-year Conflict between Global Conservation and Native Peoples*. Cambridge, MA: MIT Press.
- Geisler, Charles and Ragendra De Sousa. 2001. "From Refuge to Refugee: The African Case". *Public Administration and Development* 21(2): 159–170. doi:10.1002/pad.158.
- Goldblatt, Colin and Andrew J. Watson. 2012. "The Runaway Greenhouse: Implications for Future Climate Change, Geoengineering and Planetary Atmospheres". January. doi:10.1098/rsta.2012.0004.
- Hance, Jeremy. 2016. "Could We Set Aside Half the Earth for Nature?" *Guardian*. [www.theguardian.com/environment/radical-conservation/2016/jun/15/could-we-set-aside-half-the-earth-for-nature](http://www.theguardian.com/environment/radical-conservation/2016/jun/15/could-we-set-aside-half-the-earth-for-nature).
- Haraway, Donna. 2015. "Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin". *Environmental Humanities* 6(1): 159–165. doi:10.1215/22011919-3615934.
- Hartley, Daniel. 2015. "Against the Anthropocene". *Salvage*. <http://salvage.zone/in-print/against-the-anthropocene/#sdfootnote11sym>.
- Ingold, Tim. 1996. "Hunting and Gathering as Ways of Perceiving the Environment". In *Redefining Nature: Ecology, Culture, and Domestication*, edited by Roy Ellen and Katsuyoshi Fukui (pp. 117–155). <https://philpapers.org/rec/INGHAG>.
- Ingold, Tim. 2000. "A Circumpolar Night's Dream". In *The Perception of the Environment: Essays on Livelihood, Dwelling and Skill* (pp. 89–110). London, New York: Routledge.
- Kawa, Nicholas C. 2016. *Amazonia in the Anthropocene: People, Soils, Plants, Forests*. Austin: University of Texas Press. <https://utpress.utexas.edu/books/kawa-amazonia-in-the-anthropocene>.
- Kingsnorth, Paul. 2013. "Dark Ecology". *Orion Magazine*. <https://orionmagazine.org/article/dark-ecology/>.
- Latour, Bruno. 1993. *We Have Never Been Modern*. Cambridge, MA: Harvard University Press.
- Latour, Bruno. 2010. "An Attempt at a Compositionist Manifesto". *New Literary History* 41: 471–490.
- Latour, Bruno. 2014. "Agency at the Time of the Anthropocene". *New Literary History*. doi:10.1353/nlh.2014.0003.
- Malm, Andreas. 2018. *The Progress of This Storm: Nature and Society in a Warming World*. London: Verso.
- Marris, Emma. 2011. *Rambunctious Garden: Saving Nature in a Post-wild World*. London: Bloomsbury.
- Mitchell, Timothy. 2002. *Rule of Experts: Egypt, Techno-politics, Modernity*. Berkeley, CA: University of California Press. doi:10.2307/23348139.
- Monbiot, George. 2018. "We Won't Save the Earth with a Better Kind of Disposable Coffee Cup". *Guardian*. [www.theguardian.com/commentisfree/2018/sep/06/save-earth-disposable-coffee-cup-green](http://www.theguardian.com/commentisfree/2018/sep/06/save-earth-disposable-coffee-cup-green).
- Moore, Jason W. 2016. *Anthropocene or Capitalocene. Nature, History and the Crisis of Capitalism. Anthropocene or Capitalocene. Nature, History and the Crisis of Capitalism*. Pm Press. doi:10.1017/CBO9781107415324.004.
- Pollan, Michael. 1991/2003. *Second Nature. A Gardener's Education*. New York: Grove Press.
- Pritchard, Sara B. 2012. "From Hydroimperialism to Hydrocapitalism: 'French' Hydraulics in France, North Africa, and Beyond". *Social Studies of Science* 42(4): 591–615. doi:10.1177/0306312712443018.
- Scarso, Davide. 2013. "Beyond Nature and Culture?" *Limes: Borderland Studies* 6(2): 91–104. doi:10.3846/20297475.2012.753475.
- Silberman, Neil A. 2013. "Heritage Interpretation as Public Discourse: Towards a New Paradigm". In *Understanding Heritage: Perspectives in Heritage Studies*, edited by Marie-Theres Albert, Roland Bernecker and Britta Rudolf. Berlin: De Gruyter. doi:10.1515/9783110308389.21.
- Suckling, Kieran. 2014. "Against the Anthropocene". *Immanence: Ecolculture, Geophilosophy, Mediapolitics* (Blog). <https://blog.uvm.edu/aivak/2014/07/07/against-the-anthropocene/>.
- Tardieu, Christine. 2012. *Comment Nous Sommes Devenus Bipèdes: Le Mythe Des Enfants-Loups*. O. Jacob.



- Wilson, Edward O. 2016a. *Half-Earth: Our Planet's Fight for Life*. New York: Liveright Publishing Corporation, a division of W.W. Norton.
- Wilson, Edward O. 2016b. "The Global Solution to Extinction". *New York Times*. doi:10.1016/j.neuroimage.2008.02.053.
- Wilson, Edward O. 2017. "A Biologist's Manifesto for Preserving Life on Earth". *Sierra Club Magazine*. [www.sierraclub.org/sierra/2017-1-january-february/feature/biologists-manifesto-for-preserving-life-earth](http://www.sierraclub.org/sierra/2017-1-january-february/feature/biologists-manifesto-for-preserving-life-earth).
- Wuerthner, George, Eileen Crist and Tom Butler, eds. 2014. *Protecting the Wild: Against the Domestication of Earth. Protecting the Wild: Parks and Wilderness the Foundation for Conservation*. Washington, DC: Island Press. doi:10.5822/978-1-61091-551-9.

## Part III

# Staging the Anthropocene