

CLIMATE TRAPS: WHAT GOOD ARE VIRTUES WHEN THERE ARE NO “WORKING” SOLUTIONS?

Stoyan Stavru

Bulgarian Academy of Sciences

Abstract. This article focuses on three “traps” that must be addressed in the conversation concerning the creation, justification, and implementation of policies aimed at managing the adverse consequences of climate change. The first trap is terminological, involving the frequent conflation within climate research of the concepts “environment” – which is material, sensory, and local – and “climate” – which is abstract, statistical, and global. The second trap is transactional, characterized by the subordination of moral actions to the requirements of utilitarian logic: ethically right is only that which produces a measurable effect on emissions. The third is the teleonomic trap, highlighting one of the most evident contradictions of the contemporary world: climate sustainability comes into conflict with the pursuit of development and prosperity, both at the individual and societal levels.

Keywords: climate; energy; transition; traps; Anthropocene; ethics; virtues

1. Introduction

Before presenting my position on the specific traps posed by the climate problem for every researcher, I would like to clarify the concept of a trap that I will use in this analysis. The philosophical concept of a *trap* goes beyond its everyday use as merely a difficulty or danger. First, by “trap” I mean a structurally determined situation in which any behaviour – whether action or inaction – leads to an unacceptable outcome. Such a “trap” is more than a “problem” or “challenge”. It has the character of an aporia (ἀπορία), as it outlines a problem whose infrastructure points to a dead end: there are different paths, but seemingly no favourable way out (solution). Secondly, by “trap” I mean a state of binding impossibility in which all possibilities are compromised, yet a choice must still be made. Although every way out leads to another aspect of the same problem, and although the situation resembles an ethical dilemma in which every alternative entails moral condemnation, a decision must be taken.

While a *problem* can be solved by acquiring specific knowledge or developing an appropriate technology (for example, introducing a carbon tax to control high levels of carbon dioxide in the atmosphere), and a *challenge* can be met through de-

termination, coordination, and innovation (for example, transforming the economy from a linear to a circular model), a *trap* brings to the forefront the sense that every action results in loss. While the problem is a technocratic and instrumental reading of the situation, and the challenge plays a mobilizing and moralizing role, the trap represents the tragic view of the situation seen as an aporia. Thus, for example, to reduce global warming, we could encourage the extraction and production of rare metals (such as lithium and cobalt). This might save the climate on a global scale, but it would also cause serious social and environmental destruction in the Global South.

Precisely because traps have no “right solution” – every action aimed at justice causes harm – they demand a new kind of responsibility that goes beyond the search for a technological solution: a trap is not simply a problem that can be solved once and for all. Traps entail responsibility, the assumption of which requires acknowledging the loss of innocence: there is no “pure” moral choice that fulfills all the criteria for a right decision, yet making such a choice is necessary. Traps call for an ethic of navigation (continuous change and flexible adaptation) rather than an ethic of salvation (a single, definitive, heroic decision¹), insisting on transparency about the costs of every action and inaction.

Although the complexity of climate traps suggests that there are many more and that they most likely overlap and operate as a network, below I would like to highlight *three* in particular, whose clarification may be useful in managing the issues raised by climate change.

The first trap I will address is what I call a *terminological* trap (“cleanliness trap”). It consists in the frequent conflation, within climate research, of the concepts “environment” – which is material, sensory, and local – and “climate” – which is abstract, statistical, and global. This substitution leads to the aspiration for a “clean climate”, by analogy with a “clean environment”, rather than for a “living environment”. Some of its consequences include the moralization of mathematical models: the perception of “net zero” as a moral imperative; the neglect of local ecosystems in pursuit of global balances; the creation of new conflicts that remain difficult to understand; and a loss of sensitivity to habitability in favour of measurability.

The second trap is the *transactional* trap (“effect trap”). It essentially consists in subordinating moral actions to the requirements of utilitarian logic: ethically right is only that which produces a measurable effect on emissions. The focus is on reducing virtues to an exchange (give-and-take) and to an outcome measurable as “effectiveness”. Among the consequences of falling into this trap are the invalidation of virtues as “ineffective” (for example, setting personal limits on consumption or organizing protests); the displacement of philosophical questions about justice, care, and solidarity by climate ethics, or their treatment in a way that replaces personal responsibility with the application of algorithms for tracking effectiveness.

The third trap is what I term the *teleonomic* trap (“growth trap”). In essence, it highlights one of the most evident contradictions of the contemporary world: climate sustainability comes into conflict with the pursuit of development and prosperity, both at the individual and societal levels. The consequences of this include the emergence of conflicts between environmental goals and socio-economic ambitions (particularly in the Global South); the perception of all calls for climate justice as an explicit or implicit ban on development; and attempts to sustain the paradigm of acceleration and improvement, but in a “green” version that rearranges the problems without solving them.

2. Terminological trap: climate and environment

The terminological trap explores the interaction between two *principles* that are important for the contemporary world: the imperative to *protect* the environment (ecological sustainability, biodiversity, landscapes, habitats) and the imperative to *limit* adverse climate change (CO₂ emissions, global warming, carbon footprint).

The differences between the two *concepts* are substantial. The *environment* is concrete, material, and inhabitable – it includes humans, who are therefore able to interact directly with it. *Climate*, by contrast, is an abstract construct derived through scientific reduction, which therefore often remains imperceptible to the human senses, even though it can be measured with instruments and models².

	ENVIRONMENT	CLIMATE
Focus	Local sustainability and community rights	Global future and intergenerational justice
Action	Subject to direct human impact and protection	Requires international cooperation and modeling
Practices	Related to environmental struggles and conservation activism	Related to global policies, economics, and geopolitics
Approach	Allows for multiple values (cultural, aesthetic, spiritual)	Subject to universal metrics (“net zero”)

Regulations	Can be personified ("nature" as a subject)	More difficult for moral intuition ("climate" as a divine force)
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Policies concerning environmental protection and climate change management not only fail to coincide but may also come into *conflict*. For example, from a climate perspective, building a wind farm in a protected area appears to be a positive step towards decarbonization, but from an environmental perspective, it can be destructive, as it disrupts the ecosystem, bird migration, and the landscape. The same action can thus be "green" in the context of climate change but destructive to the environment. Contemporary ecological alienation is due to the fact that, while we are "protecting the climate", we may forget to inhabit the environment. The concept of "environment" implies place, connections, life, while the concept of "climate" denotes a regime, a system, a trend. Although these concepts are not inherently contradictory, policies aimed at climate stability often neglect the local sensitivities of environments. It is therefore important to think critically about how climate protection can avoid destroying the environment and instead integrate it into a broader horizon of environmental justice.

On the other hand, the concept "*clean climate*" is philosophically and politically problematic, as it transfers categories of the material environment ("cleanliness", "pollution") onto an abstract, statistical, and systemic phenomenon such as climate. In its contemporary political and scientific sense, climate is not a natural object but a statistical norm and a modeled forecast grounded in probabilities, scenarios, and simulations. As a statistical concept, climate encompasses average meteorological data (for example, average temperatures, precipitation, winds over a given number of years) along with a system of models and probability scenarios. It is rather a subjectless process – without an agent, intent, or locality – and therefore cannot be a "suffering party". Unlike the environment, the climate cannot be damaged, and thus the idea of "protecting" it is meaningless. Unlike nature and some of its ecosystems, such as rivers and mountains, it cannot have "rights", nor can it be regarded as a moral authority in itself. Climate is a ghost of reality: it cannot be felt, only embodied in symbols (°C, ppm, graphs).

While the concept "*clean environment*" allows for direct ethical action aimed at cleaning and restoration, the concept "*clean climate*" collides with the impossibility of cleaning up a statistically constructed system of measures and forecasts. Wanting a "clean climate" is like wanting a clean abstraction, i.e., wanting "clean" statistics or a "moral" temperature. The idea of a "clean climate" implies not only a universalism that erases the differences between North and South, or between industrial and agrarian societies, but also a moral hegemony: those who do not

contribute to a “clean climate” are deemed guilty and must assume responsibility. Care for models cannot replace care for places.

Understanding the terminological trap of “environment – climate” allows us to experiment with an *alternative approach*, which we might call a “*living climate*”³. This approach is aimed at managing a sustainable climate regime that enables life and adaptation⁴. It is characterized by a desire to navigate the climate rather than to moralize, seeking to establish climate relations rather than climate discipline, and is grounded in fair and just climate coexistence rather than the narrow pursuit of a “zero footprint”⁵. It is precisely through this alternative approach that the distinction can be drawn between harm (in protecting the environment) and justice (in managing the consequences of climate change).

While *harm* lies at the heart of the “Empire” of law, justice can be defined as the queen in the realm of political philosophy. The preference of contemporary law for operating through the concept of harm explains the latter’s establishment as an instrument of regulation in applied bio- and eco-policies. While “environmental harm” is localized, tangible, visible, and typically associated with industrial or agricultural activities, “climate harm” is distributed, statistical, deferred in time, and often anonymous. The terminological trap arises when measures taken to mitigate climate change exacerbate environmental harm at the local level (for example, the construction of solar farms on fertile land or the clearing of forests for biofuels). Unlike harm, justice is a multifaceted issue that seeks answers to questions such as who has polluted so far (historical perspective), where and who is suffering today (spatial perspective), and who will bear the consequences (generational perspective). It is the concept of justice, rather than of harm, that provides the framework that can guide policies for coal-mining regions in transition, requiring a balance between the risk of environmental pollution and the danger of social degradation when industries are closed “in the name of the climate”. Another example of transforming the conversation about harm into a conversation about justice is the introduction of carbon quotas and mechanisms for regulating emissions and trading carbon credits, which attempt to embody the moral abstraction of responsibility within specific market mechanisms.

Climate justice is not justice (“do no harm!”) towards the climate (as if it were analogous to the environment), but justice concerning the distribution of *responsibilities* and vulnerabilities related to climate change. It can be divided into at least three components: a) *historical responsibility*, raising the question of which countries, companies, or social classes have contributed most to the accumulation of emissions (for example, it is pointed out that while China has higher annual emissions today, the United States and Europe bear a disproportionate long-term responsibility); b) *social vulnerability*, raising the question of which communities are most affected by climate consequences despite having contributed least to them (such as island states like Tuvalu and the Maldives, or rural communities in the

Global South); and c) *capacity to adapt and cope*, raising the question of who possesses the resources (technological, financial, institutional) to adapt, and who does not (for example, one cannot ignore the difference between the Netherlands, a rich country with longstanding technological expertise in building dykes, and Bangladesh, a poor country highly vulnerable to flooding).

TYPE OF JUSTICE	PRINCIPLE	EXAMPLE
Of responsibility	Those who have polluted more pay more	Accounting for the historical carbon debt
Of vulnerability	Those who suffer more receive more aid	Management of loss and damage
Of process	Those affected participate in decisions	Inclusion of Indigenous peoples and local communities in negotiations

3. Transactional trap: virtues and utility

In her book *Climate Change and the Moral Agent: Individual Duties in an Interdependent World* (Cripps, 2013), Elizabeth Cripps attempts to formulate a moral duty for *the individual* with regard to climate change under conditions of global interdependence, whereby the actions of one person, although statistically insignificant, remain morally significant. Her starting premise is that neither the actions of an individual nor the policies of states are sufficient unless everyone participates (Cripps, 2013, pp. 144, 146). Climate justice can only be achieved through a combination of personal moral commitment and institutional frameworks for compensation and adaptation. The fact that no individual can “save the climate” is not a moral excuse for inaction. Beyond controlling one’s personal carbon footprint, responsibility entails participating in institutional change, supporting policies, and showing solidarity with vulnerable groups of people. As a moral agent acting under conditions of interdependence and radical uncertainty, an individual can act ethically even without controlling the outcome (Cripps, 2013, p. 178)⁶. Cripps moves beyond the paralysing framework of climate ethics in which the individual is either innocent or powerless. She introduces a form of moral responsibility that is both modest and categorical: without fetishizing effectiveness, one should do what lies within one’s power and participate in global solidarity, aware of our increasing growing mutual vulnerability (Cripps, 2013, p. 51)⁷.

In another book, *What Climate Justice Means and Why We Should Care* (Cripps, 2022), Cripps examines climate justice as an ethical framework for addressing inequalities in vulnerability, responsibility, and adaptive capacity, emphasizing the child as a symbol of innocence and the future. Justice involves active participation in life, not carbon counting: the uneven distribution of the consequences of climate change is not measured only in emissions, but in disrupted life opportunities. The figure of the *child* is not sentimental; it serves as a philosophical image of universal vulnerability, including that of future generations (Cripps, 2022, pp. 24, 28, 54, 70, 89, 91). It is particularly apt for revealing how climate injustice is not only global in spatial terms, but also intergenerational in temporal terms (Cripps, 2022, p. 105). Justice is not a balance sheet, but an ethical horizon in which solidarity, care, and political commitment are fundamental (Cripps, 2022, p. 116). The ethics of co-participation does not reduce morality to CO₂ emissions, renounce individual agency, or fear uncertainty; it transforms uncertainty into an ethical resource. Humans are not merely polluters, but above all participants in a shared world under trial: even if we are not in the same boat, we are still in the same storm – “The Same Storm, But Not The Same Boat” (Cripps, 2022, p. 49). Their participation is reflected in the fulfillment of moral duties, which does not depend on whether it will have a large-scale, measurable impact. This impact retains its moral value even when it is symbolic or testimonial, even if it appears useless in numerical terms.

Climate virtue is an “updated” version of virtue ethics, adapted to a world of systemic, slow, and non-localized evils. It differs from “classical” virtues in its motivation: it is not driven by the pursuit of personal development and fulfillment, nor by the expectation of individual rewards, but by co-participation in and responsibility for life. Classical virtue seeks to achieve the good life as happiness (εὐδαιμονία) by balancing individual and community values. Climate virtue, by contrast, aims to uphold the good life of and with others, often at the cost of personal limitations and deprivations. These two forms also have different ontological horizons: one is localized in the city (πόλις) and addressed to the good citizen, while the other unfolds globally, establishing connections with complete strangers, future people, and even non-human forms of life. Climate virtue is a form of moral resilience grounded not in extraordinary or heroic deeds, but in sustained moral awareness in everyday life, in informedness and empathy, even when that information brings anxiety. While classical virtue is a recipe for achieving personal perfection, climate virtue is an ethical response to the disintegration of the common world – one that is far more modest, even inconspicuous, emphatically everyday, yet no less resolute⁸.

4. Teleonomic trap: sustainability and growth

The teleonomic trap refers to the situation in which the value of *development* – whether economic, social, technological, or cultural – becomes *incompatible* with climate sustainability, yet neither societies nor individuals are able to renounce

it. On the one hand, countries in the Global South seek to reach the standards of the industrialized world, which inevitably entails higher carbon dioxide emissions. On the other hand, the global middle class aspires to a better life involving consumption, mobility, and new technologies – an aspiration that conflicts with efforts to recognize the planet’s limitations. Even climate policies embrace the so-called “green growth”, which maintains the paradigm of improvement and acceleration – the only difference being that it is pursued through “clean” technologies.

The ethical *risk* here lies in the perception that climate justice amounts to a ban on development, particularly from the perspective of poor societies. Sustainability policies are seen as neo-colonial constraints, generating new global tensions between climate responsibility and economic justice. Any ideas about zero growth, degrowth, or post-growth economies are met in practice with massive resistance and seem to offer no realistic opportunities for change. The task of decolonizing the imagination of progress thus appears to be rather unattainable⁹.

In this context, one can speak of the so-called “*golden growth*”¹⁰, which replaces and reinterprets the idea of “green growth”. It represents a normatively reinforced concept of economic development that seeks not only to reduce environmental harm but also to achieve high levels of social justice, intergenerational responsibility, and quality of life.

Green growth has been the dominant paradigm in global climate policy, especially since 2008. According to this approach, economic growth can continue through decarbonization – by carefully managing the resources used and the carbon dioxide emissions produced in the process¹¹. *Green growth* aims to achieve economic growth while reducing the carbon footprint. It is characterized by a strong reliance on technology (renewable sources, digitalization, circular economy), which often results in a “green capitalism”¹² that reproduces inequalities under an eco-label¹³.

PARADIGM	Focus	Goal	Ethical perspective
Green growth	Technological decarbonization	Environmentally neutral growth	Technocratic / effectiveness
Golden growth	Ethical and just transition	Growth with care and limits	Virtuous / sustainability
Post-growth	Decolonizing the idea of growth	Sufficiency, well-being without growth	Radical / transformation

5. Conclusion

I would like to conclude with a perhaps surprising analogy, which I believe reveals an important stake in the challenges facing contemporary environmental ethics. This analogy is with *artistic gymnastics* (*hudozhestvena gimnastika*)¹⁴. Artistic gymnastics was conceived as a synthesis of sport and art; today, the emphasis is on its artistic side. It involves a great deal of technique, but it is nevertheless considered “artistic” because routines are performed to music, which turns movement into a kind of dance, and because each routine is structured around a specific storyline or emotional theme, similar to choreography. The score in artistic gymnastics includes not only technical difficulty but also the artistry of the performance: fluidity, expressiveness, and plasticity. The apparatuses – hoop, ball, clubs, ribbon, and rope – serve as “stage partners”, used not merely as sports equipment but as means of creating an artistic image. Sport gymnastics (*sportna gimnastika*) emphasizes strength, technique, and acrobatics. Artistic gymnastics focuses on beauty and artistic expression, intertwining the athletic element with the aesthetic one. The term “artistic” denotes the specific goal of the discipline: to transform physical exercise into an artistic performance, where the body functions as both an athletic and an artistic instrument.

In this respect, artistic gymnastics is similar to *artistic literature*. The adjective “artistic” signifies that the activity in question transcends the purely technical or utilitarian dimension and acquires aesthetic and expressive value. In gymnastics, this means going beyond mere physical technique through music, expression, and choreography. In literature, transcending ordinary writing – such as the administrative text of an instruction – is achieved through the creation of images, metaphors, and narratives with an artistic function. Of course, there are also important differences between them. In artistic gymnastics, the composition is physical: the movements and apparatus are connected to form a complete “performance”. In artistic literature, the composition is verbal: the sentences and plot are organized into a meaningful and aesthetic whole. In both cases, we are speaking of creating a form that conveys meaning beyond utility. The gymnast does not simply perform a pirouette or a jump – she “tells” something through her gesture. The writer does not merely describe a fact but transforms it into an image that carries emotion, atmosphere, and philosophical depth.

This brings us to the question that may suggest a viable approach to the traps of climate regulation: can we conceive of an “*artistic*” (non-utilitarian) *ethics* in which virtues are more than merely useful techniques?¹⁵ Such an ethics would reveal its philosophical potential precisely in the management of climate change, where the transactional trap insists that individual behaviour has no practical significance due to its ineffectiveness – thus virtue becomes collectivized and, instead of expressing personal duty, turns into a characteristic of the system. In utilitarian ethics, virtues and rules are evaluated according to their effectiveness: how much suffering they prevent,

how much benefit they produce. In artistic ethics, virtue is valuable as a way of life – as a style of existence – even when the “outcome” is minimal or immeasurable. The essence of the transactional trap, as we pointed out, lies in the belief that every individual act appears ineffective; therefore, ethical duty is delegated to the “system”. As a result, virtue is collectivized: we speak of a “sustainable economy”, “green transition”, or “community efforts” instead of personal responsibility.

When we allow ourselves to think of *virtue* as non-utilitarian, it becomes akin to an artistic form¹⁶. Its moral value is not tied to “solving the problem” but to bearing witness. Personal behaviour has meaning even in the absence of an effective outcome, as it is a gesture of dignity, of participation in life and the world¹⁷. Thus, virtues function also as aesthetic categories of ethics: they create meaning in the way a poet writes a verse, not in the way an engineer solves a problem. Just as in artistic literature meaning often transcends the individual reader, so too in the “artistic” ethics of climate change the testimony of the individual is part of a larger chorus, where significance lies in the collective image of virtue rather than in the balance of an individual transactional account. Virtue can be a real moral commitment even when it is an action performed with the knowledge that it will not change the world, as this action remains a form of testimony and an act of co-participation¹⁸. Recognizing and highlighting such “artistic” virtues could help us address each of the three traps: terminological, transactional, and teleonomic.

In the case of the *terminological* trap, “artistic” virtues point towards new forms of contemplation that enhance sensitivity to the differences between environmental and climate policies. For example, one might create a narrative map of policies – a visual layer showing citizens what requires environmental protection and what demands climate change management. A linguistic audit of regulations could also be conducted to identify instances of conflation or inappropriate uses of the concepts of harm and justice.

In the case of the *transactional* trap, “artistic” virtues give meaning to actions without guaranteed outcomes (more like rituals of duty, not transactions), turning sustainability into an everyday mode of life (care and maintenance) and directing individual gestures towards collective visibility (participation in shared living). Thus, for example, within a local community, a schedule of “low-carbon rituals” may be developed, including regular car-free days, designating spaces for repair instead of replacement, and maintaining public places for sharing and fixing. Individual organizations may introduce their own portfolio of virtues – internal codes for repair, shared resource use, limiting business flights, and so forth – which are not formal indicators of contribution but part of the very ethos of the institution.

In the case of the *teleonomic* trap, “artistic” virtues help delineate boundaries that legitimize the rejection of growth as a positive form of life. By pointing towards contemplative forms of living, they validate life strategies of “maintenance” instead of “acceleration”. Thus, for example, they can serve to justify various suf-

iciency policies (consumption limits) and regulations that remove existing barriers to repair and reuse (encouraging repair instead of replacement of damaged items).

The most important effect of recognizing “artistic” virtues is not related to the potential benefits of their instrumentalization. That would be yet another trap we fall into while trying to eliminate traps. The highest moral value of “artistic” virtues lies in their autonomy as a position of the individual, expressed as co-participation in the life that goes on.

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NOTES

1. On the dangers of “heroism” in the context of environmental and climate problems, see Swanson, Tsing, Bubandt & Gan 2017, pp. M9 – M10, Silver, 1983, p. 253.
2. On the “globalizing” of the environment and the replacement of the different local climates with a single general concept of a “global” climate, see Turnhout, Dewulf & Hulme 2016, p. 66.
3. On the need to return to the concept of “livability”, see Gan, Tsing, Swanson & Bubandt, 2017, p. G5.
4. On life that creates its own environment, see Latour, 2017, pp. 100 – 101, citing James Lovelock and Lynn Margulis.
5. See, for example, Shue, 2014, p. 7.
6. Cripps notes the existence of “irreconcilable choices” (Cripps, 2013, pp. 180 – 184).
7. See Cripps, 2013, p. 138: “No man is an island, or can consider himself such for the purposes of limiting his moral sphere.”
8. On the virtue of hope, along with that of love (biophilia), see also Hulme, 2014, p. 306.
9. See, for example, Jackson, 2009, pp. 75 – 76.
10. The term is used, for example, in a World Bank report titled *Golden Growth: Restoring the Lustre of the European Economic Model*, written by a team led by Indermit S. Gill and Martin Raiser and available from: <https://www.worldbank.org/en/region/eca/publication/golden-growth>, without being directly related to climate change.
11. See, for example, Hickel & Kallis, 2019, p. 470.
12. On the use of “green” ideas for accumulating supranational non-state capital, see, for example, Bumpus & Liverman, 2008, p. 127.
13. The term “green grabbing” is also used (Fairhead, Leach & Scoones, 2012, pp. 237 – 239).

14. In Bulgarian, the term “artistic gymnastics” (*hudozhestvena gymnastics*) is used rather than “rhythmic gymnastics”, emphasizing the connection between this form of gymnastics and artistic literature (*hudozhestvena literature* – that is, fiction). On the use of “rhythmic gymnastics”, see, for example, Visser & Cleophas, 2024, p. 67.
15. On the significance of virtue ethics in the so-called “environmental turn” and on a new reading (“eco-turn”) of Plato’s *Republic*, see Hulme, 2014, p. 306.
16. See MacIntyre, 1981, p. 30, where virtue is defined as a practice “to achieve excellence”.
17. See Haraway, 2016, p. 2, pp. 159 – 165.
18. On “the slow work of ethics and witness” in the Anthropocene, see Rose, 2013, p. 7.

REFERENCES

- Bumpus, A.G. & Liverman, D.M. (2008). Accumulation by Decarbonization and the Governance of Carbon Offsets. *Economic Geography*, 84(2), 127 – 155.
- Cripps, E. (2013). *Climate Change and the Moral Agent: Individual Duties in an Interdependent World*. Oxford: Oxford University Press.
- Cripps, E. (2022). *What Climate Justice Means and Why We Should Care*. London: Bloomsbury Publishing Plc.
- Fairhead, J.; Leach, M. & Scoones, I. (2012). Green Grabbing: A New Appropriation of Nature? *Journal of Peasant Studies*, 39(2), 237 – 261.
- Gan, E., A. Tsing, H. Swanson, & N. Bubandt (2017). Introduction: Haunted Landscapes of the Anthropocene. In: A. Tsing, H. Swanson, E. Gan & N. Bubandt (eds.). *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*, pp. G1 – G14. Minneapolis: University of Minnesota Press.
- Haraway, D. (2015). Anthropocene, Capitalocene, Plantationocene, Chthulucene: Making Kin. *Environmental Humanities*, 6(1), 159 – 165.
- Haraway, D.J. (2016). *Staying with the Trouble: Making Kin in the Chthulucene*. Durham: Duke University Press.
- Hickel, J. & Kallis, G. (2019). Is Green Growth Possible? *New Political Economy*, 25(4), 469 – 486.
- Hulme, M. (2010). Problems with making and governing global kinds of knowledge. *Global Environmental Change*, 20(4), 558 – 564.
- Hulme, M. (2014). Climate Change and Virtue: An Apologetic. *Humanities*, 3(3), 299 – 312.
- Jackson, T. (2009). *Prosperity without Growth: Economics for a Finite Planet*. London: Earthscan.
- Latour, B. (2017). *Facing Gaia: Eight Lectures on the New Climatic Regime*. Translated by C. Porter. Cambridge/Malden: Polity.

- Le Guin, U.K. (1988). The Carrier-Bag Theory of Fiction. In: D. DU PONT (ed.). *Women of Vision: Essays by Women Writing Science Fiction*. New York: St. Martin's Press.
- Macintyre, A. (1981). The Nature of the Virtues. *The Hastings Center Report*, 11(2), 27 – 34.
- Shue, H. (2014). *Climate Justice. Vulnerability and Protection*. Oxford: Oxford University Press.
- Silver, B.R. (1983). *Virginia Woolf's Reading Notebooks*. Princeton: Princeton University Press.
- Swanson, H., A. Tsing, N. Bubandt & E. Gan (2017). Introduction: Bodies Tumbled into Bodies. In: A. Tsing, H. Swanson, E. Gan & N. Bubandt (eds.). *Arts of Living on a Damaged Planet: Ghosts and Monsters of the Anthropocene*. Minneapolis: University of Minnesota Press.
- Turnhout, E., A. Dewulf & M. Hulme (2016). What does policy-relevant global environmental knowledge do? The cases of climate and biodiversity. *Current Opinion in Environmental Sustainability*, 18, 65 – 72.
- Visser, U.T. & F.J. Cleophas (2024). Roots, Origins and Development of Rhythmic Gymnastics: A Historical Insight. *Science of Gymnastics Journal*, 16(1), 67 – 76.

✉ **Prof. Stoyan Andreas Stavru**
Institute of Philosophy and sociology,
Bulgarian Academy of Sciences
Bulgaria, Sofia
4, Serdika St.
E-mail: stoyan.stavru@gmail.com