

**THE SUBLIME EXPERIENCE OF BIODIVERSITY.
RETHINKING KANTIAN SUBLIME IN THE AGE OF
ECOLOGICAL CRISIS**

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This paper investigates the relationship between biodiversity and aesthetic experience, proposing an *unconventional approach* to understand the biological diversity in philosophical terms. The most widely shared perspective in contemporary Environmental Aesthetics emphasises the importance of preserving biological diversity, considering the aesthetic value of beauty one of the pillars for the defence of the diversity of life forms on our planet. The perspective proposed here distances itself from this approach. In fact, this article questions whether we can imagine an aesthetic experience of biodiversity that surpasses the mere appreciation of the beauty of individual animal and plant species; instead, it encourages a focus on the *grandeur of biodiversity* itself, highlighting its *sublime nature*.

In the first part of this article, we will examine the idea of aesthetic experiences related to biodiversity, outlining the theoretical standpoint that informs our argument (paragraph 1); then we will briefly analyze the different aesthetic relationship that beauty and the sublime establish with natural entities (paragraph 2). Particular attention will be given to the historical interpretation of the sublime given by Immanuel Kant in the *Critique of Judgement*, especially in the section dedicated to the *Analytic of Sublime* (paragraph 3).

In the second part of the article, we will finally discuss the significance of the sublime in the context of the current ecological crisis and in relation to the global loss of biodiversity. We believe that an appreciation of the aesthetics of the sublime can improve our commitment to preserving biological diversity, not only by evoking feelings of wonder and respect for nature but also by revealing the complexity and fragility of the living networks of which we are part.

Keywords: Environmental Aesthetics, Biodiversity, Beauty, Sublime.**L'ESPERIENZA SUBLIME DELLA BIODIVERSITÀ. RIPENSARE IL SUBLIME KANTIANO NELL'ERA
DELLA CRISI ECOLOGICA**

Il presente articolo indaga il rapporto tra biodiversità ed esperienza estetica, proponendo un *approccio non convenzionale* per comprendere la diversità biologica in termini filosofici. La prospettiva più diffusa nell'estetica am-



bientale contemporanea sottolinea l'importanza di preservare la diversità biologica, considerando il valore estetico della bellezza uno dei pilastri per la difesa della diversità delle forme di vita sul nostro pianeta. La prospettiva qui proposta si discosta da tale approccio. Infatti, il presente articolo si interroga sulla possibilità di immaginare un'esperienza estetica della biodiversità che vada oltre il semplice apprezzamento della bellezza delle singole specie animali e vegetali; piuttosto, invita a concentrare l'attenzione sulla *grandiosità della biodiversità* stessa, sottolineandone la *natura sublime*.

Nella prima parte dell'articolo verrà esaminata l'idea di esperienze estetiche legate alla biodiversità, delineando l'orientamento teorico che informa l'argomentazione (paragrafo 1); quindi, si analizzeranno brevemente le differenti relazioni estetiche che bellezza e sublime instaurano con gli enti naturali (paragrafo 2). Particolare attenzione sarà riservata all'interpretazione storica del sublime offerta da Immanuel Kant nella *Critica del Giudizio*, in particolare nella sezione dedicata all'*Analitica del Sublime* (paragrafo 3).

Nella seconda parte dell'articolo discuteremo infine il rilievo che il concetto di sublime assume nel contesto dell'attuale crisi ecologica e in relazione alla perdita globale di biodiversità. Riteniamo, infatti, che l'apprezzamento dell'estetica del sublime possa rafforzare il nostro impegno nella conservazione della diversità biologica, non solo evocando sentimenti di meraviglia e rispetto per la natura, ma anche rivelando la complessità e la fragilità delle reti viventi di cui facciamo parte.

Parole chiave: Estetica ambientale, Biodiversità, Bellezza, Sublime

1. SOME INTRODUCTORY REFLECTIONS ON THE AESTHETIC EXPERIENCE OF BIODIVERSITY

In a decisive passage of *A Sand County Almanac*¹ (1949) – a key text of the worldwide environmentalism for having proposed the truly new *Ethics of the Earth*, the American forester and professor of Wildlife Management Aldo Leopold (1887-1948)² emblematically observed that «a thing is right when it tends to preserve the integrity, stability and beauty of the biotic community»³. This claim touches the heart of anyone concerned with the aesthetics of nature, because it speaks so openly of beauty. Hence, it is frequently invoked

¹ A. Leopold, *A Sand County Almanac: And Sketches Here and There*, (1949), Oxford University Press, New York 2020. See also Id., *Pensare come una montagna. A Sand County Almanac*, eds. by A. Roveda, Piano B, Prato 2019. Published posthumously due to the author's sudden death (he died prematurely in 1948 while trying to put out a forest fire), together with H.D. Thoreau's *Walden* (see H.D. Thoreau, *Walden or, Life in the Woods*, 1854; it. transl. by S. Proietti, *Walden. Vita nel bosco*, Feltrinelli, Milano 2012), it has become a classic of twentieth-century environmentalism over the decades. The work, by Leopold's choice, was written in the form of an *almanac* – that is, a type of text not intended for specialists and whose argumentative order is not rational and organized based on specific themes but structured following the *temporality of nature* itself – opens with an intensely and emotional personal observation: «there are some who can live without wild things, and some who cannot. These essays are the delights and dilemmas of one who cannot» (A. Leopold, *A Sand County Almanac*, cit., p. xxi).

² As an American official managing Wisconsin's forests, Leopold undoubtedly represents a peculiar combination of environmental defence practice and aesthetic-philosophical reflection on the value of natural life and its many manifestations. He is convinced that the management of the environment should be part of a wider ethical and philosophical reflection. For that reason, he often emphasizes in his writings that «conservation is getting nowhere because it is incompatible with our Abrahamic concept of land. We abuse land because we regard it as a commodity belonging to us. When we see land as a community to which we belong, we may begin to use it with love and respect» (*ivi*, p. xxii). Moreover, in his masterpiece, Leopold introduces the concept of a *land ethic*, which shifts the focus from humans to the Earth, viewing it as a network of reciprocal, symbiotic interactions or as a balanced system where each component holds equal functional importance (cf. S. Iovino, *Filosofie dell'ambiente. Natura, etica, società*, Carocci, Roma 2004, p. 26). He argues that the current degradation of the environment stems from humanity's usurping attitude, acting as the masters of a world in which we are merely «citizens». Using a particularly evocative metaphor from Nicola Perullo, the Earth can be compared to a «condominium», sharing the earth equally with animals, plants, and inanimate entities such as water, soil, rocks, and rivers (cf. N. Perullo, *Estetica senza (s)oggetti. Per una nuova ecologia del percepire*, DeriveApprodi, Roma 2022, p. 25). As Leopold suggests, an earth-centred ethic transforms our perspective, transitioning from an individualistic and human-centred view of our relationship with nature to a holistic perspective that embodies the essence of *ecocentrism*. For further insights on these reflections, see also M. Tallanchini (ed.), *Etiche della Terra. Antologia di filosofia dell'ambiente*, Vita e pensiero, Milano 1998.

³ *ivi*, p. 211.

as a *slogan* by contemporary environmental aestheticians⁴ who maintain that beauty is a grounding value that is essential for preserving biodiversity⁵.

However, in the article *The Link Between Aesthetic Appreciation and the Preservation Imperative*⁶, the North American philosophers Sheila Lintott and Allen Carlson note a tension: some aestheticians question whether “beauty” adequately captures the ecological priorities of “integrity” and “stability” indicated by Leopold. From an ecological perspective – they argue – beauty may appear *subjective* and *less important* compared to integrity and stability, believed to be objective and essential. Lintott and Carlson, inspired by Leopold’s viewpoint, argue instead that beauty is more than a *superficial quality*: it plays a crucial role in promoting environmental protection because it helps us to understand the relationships and the inter-connections among the key ecological characteristics of a biotic community. These features do not exist in isolation: they are not independent but interact in a complex web that contributes to the health of ecosystems. Thus, beauty appears as a *visible manifestation of the integrity and stability of a given ecosystem over time*. And it is precisely this intrinsic connection between the three characteristics identified by Leopold – integrity, stability, and beauty – that, according to the approach of Lintott and Carlson, justifies the central role of aesthetics in supporting environmental preservation efforts⁷.

⁴ Environmental Aesthetics, says the French aesthetician Jean-Marie Schaeffer, is «a highly multidisciplinary movement (or rather, a family of movements) that combines theoretical reflection and political commitment (in the broad sense of the term) in the service of the environmental cause» (J.-M. Schaeffer, *Esthétique de la nature ou esthétique environnementale ?*, in “Nouvelle revue d’esthétique”, n. 22, 2018/2, p. 56). The field emerged in the Anglo-American analytic tradition in the late 20th century, is broadly concerned with how we perceive, interpret, and evaluate the aesthetic qualities of natural and built environments. Initially focused on the appreciation of nature’s beauty, it has since expanded to encompass a variety of aesthetic responses to ecological complexity, change, and degradation. As Serenella Iovino points out, although a “prehistory” of this movement, «coinciding with the inclusion of the beautiful among the aesthetic categories and with the popularity of the “picturesque”, can be identified as early as the eighteenth century, it is only in recent years that this discipline has taken on more defined features» (S. Iovino, *Filosofie dell’ambiente*, cit., p. 134). We recall that in 1998 the “Journal of Aesthetics and Art Criticism” dedicated a special issue to Environmental Aesthetics, introducing a relatively new theme that only recently has begun to attract the attention of scholars again. For a general definition of the movement and its characteristics, see: H.-S. Afeissa, *Esthétique de l’environnement*, in A. Choné, I. Hajek, P. Hamman (eds.), *Guide des Humanités environnementales*, Presses universitaires du Septentrion, Villeneuve d’Ascq 2018, pp. 145-155; A. Berleant, *Environmental Aesthetics*, in M. Kelly (ed.), *The Encyclopedia of Aesthetics vol. 2*, Oxford University Press, New York 1998, pp. 114-120; E. Brady, *Aesthetics of the Natural Environment*, in V. Pratt, J. Howarth, E. Brady (eds.), *Environment and Philosophy*, Routledge, London-New York 2000, p. 142-163; Ead., *Environmental Aesthetics*, in J. Callicott, R. Frodeman (eds.), *Encyclopedia of Environmental Ethics and Philosophy*, vol. 1, Macmillan Reference, Detroit 2009, pp. 313-321; A. Carlson, *Environmental Aesthetics*, in B. Gaut, D. Lopes (eds.), *Routledge Companion to Aesthetics*, Routledge, London 2001, pp. 423-436; Id., *Environmental Aesthetics*, in E.N. Zalta (ed.), *Stanford Encyclopedia of Philosophy*, 2020; P. D’Angelo, *Estetica ambientale*, in “Enciclopedia Treccani XXI Secolo”, 2010; S. Feloj, *Environmental Aesthetics*, in “International Lexicon of Aesthetics”, 2018; J.A. Fisher, *Environmental Aesthetics*, in J. Levinson (ed.), *Oxford Handbook of Aesthetics*, Oxford University Press, Oxford, 2003, pp. 667-678; G.L. Iannilli (ed.), *Aesthetic Environments: Contemporary Italian Perspectives*, *Aesthetica Preprint*, n. 114, 2020.

⁵ The term *biodiversity*—a contraction of “biological diversity”—was first coined by W.G. Rosen in 1985 and popularized by the biologist E.O. Wilson, particularly in the proceedings of the 1986 National Forum on BioDiversity held in Washington D.C., which he edited [E.O. Wilson, F.M. Peter (eds.), *Biodiversity*, National Academies Press, Washington (DC) 1988]. Scientifically, biodiversity refers to the variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems, and the ecological complexes of which they are part.

⁶ S. Lintott, A. Carlson, *The Link Between Aesthetic Appreciation and the Preservation Imperative*, in R. Rozzi et al. (eds.), *Linking Ecology and Ethics for a Changing World: Values, Philosophy, and Action*, Springer, Dordrecht 2013, pp. 121-136

⁷ It is important to note that the connection between beauty and ecological health, as proposed by Carlson and Lintott, reflects a culturally situated perspective rather than a universally shared view. Their interpretation of natural beauty is problematic in several ways. By labelling elements of the natural world as *beautiful*, common sense often attaches to this term varied and ambiguous meanings; this may refer to the charm of a species, formal balance, grace, functionality, or even evolutionary fitness. However, Carlson, who is known for founding the cognitivist approach to the aesthetics of nature, stands out for their effort to link aesthetic experience with scientific knowledge of ecological relationships. This perspective is valuable, particularly when extended to include inorganic entities, as it promotes a *positive aesthetic* that appreciates environments not typically recognized for their beauty (on positive aesthetics cf. E. Brady, *The Ugly Truth: Negative Aesthetics and Environment*, in “Royal Institute of Philosophy Supplement”, n. 69, 2011, pp. 83-99; A. Carlson, *Nature and Positive Aesthetics*, in “Environmental Ethics”, n. 6, 1984, pp. 5-34). In their article Carlson and Lintott emphasize that no natural environment is inherently devoid of aesthetic

As a result, the two North American thinkers emphasised the ethical duty that accompanies our appreciation of beauty, suggesting that it fosters a profound sense of responsibility towards the preservation of these integral ecological components because it helps us develop a more deeply rooted commitment to the conservation of the environment as a whole and of individual species that reflects our values and aesthetic sensibility⁸. Lintott and Carlson explain the link between recognising natural beauty and the responsibility to care for it by drawing an analogy with the world of art. The link between the concepts of beauty and responsibility is particularly evident in the way we preserve valuable works of art: when something is deemed to be of remarkable aesthetic value, we revere it and take measures to prevent its deterioration or damage. Similarly, they suggest that our aesthetic appreciation of natural features – the landscapes, creatures and ecosystems we encounter – directly influences our attitude towards them and the actions we take to ensure their preservation. As the two authors note, the «aesthetic appreciation influences our attitudes and actions toward nature in that the natural environments, landscapes, objects, and creatures we judge to be aesthetically exceptional are thought to be, as are great works of art, worthy of preservation»⁹.

Although the authors present a strong argument supported by various proponents of American scientific cognitivism¹⁰, there is a critical point to consider. Lintott and Carlson themselves acknowledge that aesthetic appreciation does not always align with ecological health. In the conclusion of their essay, they illustrate this issue with a compelling example: imagine two stands of trees that appear nearly identical, each glowing golden in the light of sunset. Both may initially evoke a similar aesthetic response, making them seem “beautiful”. However, suppose that one stand consists of tamarack larches, whose golden needles reflect the natural progression of autumn, while the other is made up of pine trees, whose discoloration is the result of a devastating pine beetle infestation. With a proper understanding of ecology – considering seasonal change, species differences, and the ecological threat posed by the beetle – our perception shifts. We begin to differentiate between the two stands, and our aesthetic appreciation evolves. This informed perspective could influence conservation decisions: if asked to preserve one area and repurpose the other, we might base our choices, at least in part, on this ecologically informed aesthetic judgment, opting to conserve the tamarack stand

value; even those that initially seem chaotic, gloomy, or unpleasant can be re-evaluated and appreciated through an understanding of their ecological functions. Carlson further developed this idea with Glenn Parsons in their essay *Functional Beauty* (G. Parsons, A. Carlson, *Functional Beauty*, Oxford University Press, Oxford 2008), where they propose applying the concept of functional beauty to environments like wetlands or marshes. At first glance, a wetland – filled with tufts of moss, tangled grass, and a variety of insects and birds seemingly arranged at random in stagnant, muddy water – may look like a disordered collection of unpleasant elements. However, by understanding the ecological roles of each component, we can reassess the scene aesthetically, recognizing its systemic integrity and potentially discovering a new form of beauty. See also: J. Callicott, *Wetland Gloom and Wetland Glory*, in “Philosophy and Geography”, n. 6, 2003, pp. 33-45.

⁸ Cf. N. Hall, E. Brady, *Environmental Virtue Aesthetics*, in “British Journal of Aesthetics”, vol. 63, 2023/1, pp. 109-126 in which Halle and Brady define the thinking of the two authors as belonging to the category of aesthetic preservationism (AP) that «a position that generally accords aesthetic experience and value with moral ambitions to protect and preserve usually ‘pristine’ or wild natural environments» (*Ivi*, p. 110).

⁹ S. Lintott, A. Carlson, *The Link Between Aesthetic Appreciation and the Preservation Imperative*, cit., p. 127. For a general discussion on the relationship between the aesthetics of nature and environmentalism, see A. Carlson, *Contemporary environmental aesthetics and the requirements of environmentalism*, in “Environmental Value”, n. 19, 2010, pp. 289-314. For a discussion, however, on how aesthetics can play a role both for and against conservation, see Y. Saito, *The role of aesthetics in civic environmentalism*, in A. Berleant, A. Carlson (eds.), *The Aesthetics of Human Environments*, Broadview Press, Peterborough 2007, pp. 203-218 and S. Lintott, *Toward eco-friendly aesthetics*, in “Environmental Ethics”, n. 28, 2006, pp. 57-76.

¹⁰ Scientific cognitivism in environmental aesthetics emphasizes the integration of scientific knowledge (particularly from ecology, biology, and geology) into our appreciation of the environment. Advocates, like Allen Carlson, argue that just as understanding the historical context of art enhances appreciation, knowledge of ecological functions is essential for fully enjoying natural landscapes. However, this approach has been criticized for undervaluing direct perception, sensory engagement, imagination, and emotional connections, which are also important aspects of experiencing nature aesthetically. Cf. N. Hall, E. Brady, *Environmental Virtue Aesthetics*, cit., pp. 110-112.

and manage or restore the pine stand differently¹¹. This example highlights that, for Lintott and Carlson, aesthetic appreciation alone is insufficient for grounding environmental decision-making. They advocate for integrating scientific knowledge into our aesthetic experiences of nature. This stance challenges certain classical Kantian beliefs about the independence of aesthetic judgment from cognitive influences¹² and raises an important question: to what extent are our aesthetic responses shaped by cultural and epistemic shifts? If aesthetic value is, at least in part, informed by ecological understanding, then changes in our knowledge about nature can transform what we find beautiful. While we cannot delve deeply into this topic or seek to answer this question here, we believe it is important to raise it, nonetheless. Lintott and Carlson, along with scientific cognitivists in general, seem to overlook the importance of the sensory dimension of our experiences, which is perceptual, grounded in daily life, and rich in emotional significance¹³.

In the present article, it is not our aim to revisit the well-trodden paths explored by many before us in investigating the relationship between beauty and ecology¹⁴. As we have pointed out, Lintott and Carlson offer a valuable perspective in which beauty is not a mere superficial quality, but a key aesthetic category to understanding and promoting nature conservation. Through their analysis, beauty emerges as an expression of the integrity and stability of ecosystems, capable of mobilizing an ethical response that translates into responsibility and care. However, despite its strengths, this beauty-centered paradigm risks overshadowing another fundamental dimension of the aesthetic experience of biodiversity, one that opens a more complex, ambivalent, and profound perception. Here, A.R. Kiester's proposal – described in his pioneering article *Aesthetics of Biological Diversity*¹⁵ – comes into play, inviting us to look beyond harmony and pleasantness and embrace the multiple manifestations of biodiversity, with its unpredictability, functional complexity, and its capacity to evoke feelings of surprise, wonder, and even discomfort. Kiester suggests that biodiversity, perceived through this lens, cannot be reduced to a mere object of beauty but instead manifests as a rich and multifaceted aesthetic experience akin to the sublime. In this sense, the aesthetic experience of biodiversity becomes a tool for deeper ecological awareness, able to stimulate not only admiration but also humility, disorientation, and reverential respect for the complexity of life.

In this article, we seek to introduce an *alternative approach* to the complexities of biodiversity and the critical need for its preservation based on the recognition of natural beauty. Our approach resonates with the early insights of Kiester, who, as early as 1997, championed the exploration of biodiversity's aesthetics

¹¹ S. Lintott, A. Carlson, *The Link Between Aesthetic Appreciation and the Preservation Imperative*, cit., p. p. 134.

¹² See for example: I. Kant., *Kritik der Urtheilskraft*, 1790; transl. by di E. Garroni, H. Hohenegger, *Critica della facoltà di giudizio*, Torino, Einaudi 1999, p. 46 and p. 146. Cfr. also V. Maggiore, *L'Estetica nell'età dell'Antropocene: i molteplici volti della riflessione estetica contemporanea sulla natura*, in V. Maggiore, S. Tedesco (a cura di), *Ecoestetica. Scritti sull'estetica della Natura*, Meltemi, Milano 2023, pp. 9-59.

¹³ According to Sandra Shapshay, the exclusion of the most subjective forms of aesthetic understanding contributes to Carlson and his followers' lack of interest in exploring the concept of the sublime, a conceptual category considered since modernity to be the counterpoint to beauty and which, as we shall see, will be at the heart of our argument. Cf. S. Shapshay, *Contemporary Environmental Aesthetics and the Neglect of the Sublime*, in "The British Journal of Aesthetics", vol. 53, 2013/2, pp. 181-198. See also V. Maggiore, *Sentire la natura. Un nuovo spazio per l'estetica nell'età dell'Antropocene*, Plumelia Edizioni, Bagheria (PA), 2025, p. 236 ss.

¹⁴ For example, the biologist Edward O. Wilson (1929-2021) emphasizes the artistic beauty of biodiversity to affirm its value: he compares the diversity of life on Earth to an extraordinary work of art that offers us the keys to understanding our past and shaping our future. See, for example, E.O. Wilson, *Biophilia*, Harvard University Press, Cambridge (Mass.) 1984; transl. by C. Sborgi, *Biofilia. Il nostro legame con la natura*, Piano B edizioni, Prato 2021 and Id., *The Origins of Creativity*, Liveright Publishing Corporation, New York 2017; transl. by A. Panini, *Le origini della creatività*, ed. by T. Pievani, Raffaello Cortina Editore, Milano 2018. On the importance of the concept of beauty for constructing aesthetic reflection on nature, see also P. D'Angelo, *Estetica della natura. Bellezza naturale, paesaggio, arte ambientale*, Laterza, Roma-Bari 2001.

¹⁵ A.R. Kiester, *Aesthetics of biological diversity*, in "Human Ecology Review", vol. 3, n. 2, 1997, pp. 151-157.

as a distinct yet overlooked facet of human ecological consciousness. In his text, Kiester challenges the assumption that aesthetic value in nature must be tied exclusively to traditional notions of beauty, such as harmony, symmetry, or visual pleasure. Instead, he invites us to consider biodiversity itself – in its unpredictability, multiplicity, and functional complexity – as a potential object of aesthetic experience. Drawing from both ecological science and philosophical aesthetics, Kiester suggests that the experience of biodiversity may evoke not only beauty, but also surprise, wonder, awe, and even discomfort. These affective responses, he argues, reveal a *deeper engagement* with the natural world, one that recognizes its intricate interdependencies and dynamic structures.

Far from being a purely theoretical exercise, Kiester's proposal opens a crucial field of reflection: if biodiversity can be experienced aesthetically in ways that go beyond conventional beauty, what kind of aesthetic categories and perceptual attitudes are needed to fully account for its value? This question represents the point of departure for the reflections we offer in this article. By reconsidering the aesthetic experience of biodiversity through the lens of the sublime, we aim to extend Kiester's insight and explore how feelings of awe, disorientation, and respect for the more-than-human world can contribute to a renewed ecological consciousness.

It is important to note that, by suggesting a different aesthetic approach, we do not intend to replace ecological, ethical, or scientific models of understanding biodiversity. Rather, we propose that aesthetic experience – especially in the form of the sublime, understood here in a Kantian-inflected, ecologically attuned sense that emphasizes disorientation, immensity, and interdependence – offers a *distinct mode of engagement* with biodiversity, one that activates perception, emotion, and imaginative participation¹⁶. The guiding questions of this article will therefore be the following: *can biodiversity be understood not only in terms of the visual or morphological variety of species, but as a qualitatively distinct aesthetic experience that evokes awe, humility, and responsibility?* And again: *how does sublime experience help us to understand better, than the experience of beauty, the relationships and the interconnections among the key ecological characteristics of a biotic community?* These questions aim not only to supplement current models, but to challenge the boundaries of what counts as aesthetic engagement in environmental thought.

Unlike scientific or normative frameworks, which tend to objectify or instrumentalize biodiversity (as data, value, or resource), the aesthetic perspective reinstates the felt complexity of our relationship with life's multiplicity. More specifically, our proposal differs from previous aesthetic approaches such as those grounded in the appreciation of beauty (e.g. the approach of Lintott and Carlson) – by emphasizing the *sublime dimensions of biodiversity*: the overwhelming vastness, unpredictability, and generativity of biological life. This shift from beauty to the sublime invites, in our opinion, a deeper *emotional and ethical response*, not only grounded in admiration but also in disorientation, humility, and reverential awe. It is in this sense that the aesthetic lens – reframed through the affective and epistemic disruptions of the sublime – offers not merely an alternative, but a corrective to the prevailing alignment between beauty and environmental preservation. Rather than inviting passive admiration, the sublime calls for a transformative re-evaluation of our place within the more-than-human world.

¹⁶ We fully acknowledge the essential contributions of environmental ethics in articulating the intrinsic value of biodiversity, whether through biocentric, ecocentric, or relational frameworks. However, ethical principles alone may not suffice to activate the full depth of our engagement with the living world. While they can affirm why biodiversity ought to matter, aesthetics helps us *to feel* why it matters. In this sense, aesthetics does not replace ethics, but animates it, grounding normative commitments in felt experience and embodied perception.

To outline this approach and attempt to answer the guiding questions we have asked ourselves, first we must clarify what we mean by *biodiversity*. The term biodiversity – a contraction of “biological diversity” – was popularized in the 1980s, especially following the 1992 *Convention on Biological Diversity (CBD)*. Scientifically, it refers to the variety and variability of life forms at multiple levels of biological organization: genetic diversity (within individuals and populations), species diversity (the number and relative abundance of species), ecosystem diversity (the variety of habitats, ecological processes, and biotic communities)¹⁷. This multidimensional character distinguishes biodiversity from more generic terms such as “nature”, “environment” or “creation”. Unlike the term “nature”, which evokes in the collective imagination a scenic vision of the non-human world and may suggest a foreignness to human culture¹⁸, biodiversity is deeply relational, processual and dynamic, constantly changing and always embedded in co-evolving systems. Similarly, “environment” typically refers to the surroundings or context in which an organism lives, often focusing on external conditions (climate, soil, pollution, etc.) rather than on the *web of life* itself. By contrast, biodiversity points to the life-producing and life-sustaining capacities of the Earth. Finally, unlike the theological or metaphysical resonances of the term “creation”, which suggest a divine or purposeful origin of life, biodiversity is an emergent property of evolutionary processes – complex, contingent, and historically shaped. It cannot be reduced to a harmonious whole or a predefined design; instead, it includes chaos, excess, extinction, and surprise. As such, it is not a static or monolithic entity, but a dynamic and relational system: it is a living, pulsing multiplicity that exceeds representation and challenges comprehension, and confronts us with an overwhelming multiplicity that borders on the sublime.

As we will attempt to demonstrate during our argument, when biodiversity is perceived not only as variety but as a bewildering expression of the generative power of life, the result is often awe, a fundamental ingredient of the sublime. Unlike beauty, which tends to emphasise harmony, order, or proportion, the concept of the sublime evokes an emotional and cognitive reaction to something that overwhelms or exceeds our understanding yet simultaneously captivates us. A concrete example can help us clarify this idea. Tropical rainforests, such as the Amazon, are home to an estimated 10% of the world’s known species, all contained within a small portion of the Earth’s surface. Their complex levels, constant movement, and rich biological interactions challenge our ability to fully comprehend them visually. These ecosystems are remarkable not only for their beauty but also for their abundant life; however, the imminent threat of deforestation makes their conservation an ethically pressing concern.

The biodiversity of natural environments such as Amazon rainforest or Australia’s Great Barrier Reef offers an aesthetic experience that borders on ecstasy yet is shadowed by the fragility and ongoing collapse of these ecosystems – a tension that lies at the heart of the sublime since the first modern descriptions of the concept and which is particularly clearly outlined in Kant’s reflections. Such phenomena reveal biodiversity

¹⁷ Article 2 of the Convention on Biological Diversity (CBD) defines biodiversity as «the variability among living organisms from all sources, including terrestrial, marine, and other aquatic ecosystems, as well as the ecological complexes of which they are a part. This definition encompasses diversity within species, between species, and among ecosystems» (see <https://www.cbd.int/doc/legal/cbd-en.pdf>).

¹⁸ Traditionally, nature was often perceived as a distant ideal, as «the entirely unattainable *topos* of that which lies outside of society [*Topos des Auflergesellschaftlichen*]» (G. Böhme, *Aesthetics of Nature. A Philosophical Perspective*, in M. Middeke, G. Rippl, H. Zapf (eds.), *Handbook of Ecocriticism and Cultural Ecology*, vol. 2, De Gruyter, Berlin-Boston 2016, p. 125). As Gernot Bohme points out, as late as 1970, the philosopher Theodor W. Adorno defines in this way in his work *Ästhetische Theorie* (T.W. Adorno, *Ästhetische Theorie*, Suhrkamp Verlag, Frankfurt am Main 1970; transl. by G. Matteucci, *Teoria estetica*, Einaudi, Torino 2009). He depicted nature as a serene realm or *counterworld* [*Gegenwelt*], a refuge that could counterbalance the social tensions of modern civilization. However, considering current environmental crises, this perception has become increasingly obsolete. Today, we are compelled to confront nature not as an idyllic escape, but as a fragile entity that is deeply impacted by human activity.

not as a mere collection of beautiful objects, but as a force field of entangled lives, operating across scales and systems. For this reason, experiencing biodiversity as sublime invites a shift from *aesthetic appreciation* to *aesthetic confrontation*¹⁹ (a mode of experience that does not settle for appreciation, but implicates the perceiver in an affectively charged, often unsettling recognition of ecological complexity and fragility)²⁰ – a confrontation that moves us toward *humility, care, and responsibility*. When apprehended in its full environmental and phenomenological depth, biodiversity may thus provide a more fitting aesthetic foundation for conservation efforts in the Anthropocene, precisely because it foregrounds our vulnerability, interdependence, and ethical entanglement with the more-than-human world.

We propose to address the relationship between the concept of the sublime and that of biodiversity by structuring our reflections as follows: after briefly introducing the aesthetic experience of biodiversity in paragraph 1, the article is divided into two distinct sections. In the first section (paragraphs 2 and 3), we will explore the concept of the sublime, starting with a concise analysis of the various perspectives that inform our understanding of beauty and the sublime (paragraph 2), exploring how these notions intersect and diverge in the context of aesthetic appreciation. Subsequently, we will delve deeper into the historical interpretations of the sublime, tracing its evolution in aesthetic thought (paragraph 3). Through this lens, we aim to illuminate how the sublime continues to resonate within our perceptions of nature and biodiversity. It should be noted that our purpose, in this paper, is not to provide a comprehensive history of the concept of the sublime, as this would encompass various theoretical interpretations from ancient times to the modern era²¹. Such a broad discussion would require more space than we have here. Instead, we will

¹⁹ The shift from aesthetic appreciation to aesthetic confrontation implies a rethinking of the core concerns of environmental aesthetics, a field that has traditionally focused on the appreciation of nature's beauty. Environmental aesthetics emerged in the context of Anglo-American analytic aesthetics and was inaugurated by Ronald W. Hepburn's seminal 1966 essay, *Contemporary Aesthetics and the Neglect of Natural Beauty* (cf. R.W. Hepburn, *Contemporary Aesthetics and the Neglect of Natural Beauty*, in B. Williams, A. Montefiore (eds.), *British Analytical Philosophy*, Routledge and Kegan Paul, London 1966, pp. 285-310). Since its inception, this field has investigated how we perceive beauty in nature, how aesthetic appreciation of natural environments differs from that of art, and how landscapes, ecosystems, and wildlife shape our aesthetic experiences. The idea of "appreciation" has thus remained central in environmental aesthetics, especially in the work of scholars such as Emily Brady, Malcolm Budd, Allen Carlson, Noël Carroll, Stan Godlovitch, Glenn Parsons, Yuriko Saito, etc. See, for example, the texts: E. Brady, *Imagination and the aesthetic appreciation of nature*, in "The Journal of Aesthetics and Art Criticism", n. 56, 1998/2, pp. 137-148; M. Budd, *The aesthetic appreciation of nature*, Clarendon Press, Oxford 2002; A. Carlson, *Appreciation and the Natural Environment*, in "The Journal of Aesthetics and Art Criticism", n. 37, 1979, pp. 267-276; Id., *Appreciating Art and Appreciating Nature*, in S. Kemal, I. Gaskell (eds.), *Landscape, natural beauty and the arts*, Cambridge University Press, Cambridge 1993; pp. 199-227; Id., *Nature, Aesthetic Appreciation, and Knowledge*, in "The Journal of Aesthetics and Art Criticism", n. 53, 1995, pp. 393-400; Id., *Aesthetics and the Environment: the appreciation of Nature, Art and Architecture*, Routledge, London 2000; N. Carroll, *On being moved by nature: between religion and natural history*, in S. Kemal, I. Gaskell (eds.), *Landscape, natural beauty and the arts*, cit., pp. 244-266; S. Godlovitch, *Icebreakers: Environmentalism and Natural Aesthetics*, in "Journal of Applied Philosophy", n. 11, 1994; Id., *Evaluating nature aesthetically*, in "Journal of Aesthetics and Art Criticism", n. 56, 1998/2, pp. 113-125; R. Hepburn, *Aesthetic Appreciation of Nature*, in H. Osborne (ed. by), *Aesthetics in the Modern World*, Thames and Hudson, London 1968, pp. 49-66; G. Parsons, *Aesthetics and Nature. The Appreciation of Natural Beauty and the Environment*, Bloomsbury, London – New York – Dublin, 2024; Y. Saito, *Appreciating Nature on its Own Terms*, in "Environmental Ethics", n. 20, 1998, pp. 135-149. Introducing the notion of "aesthetic confrontation" in the context of biodiversity aims to enrich this tradition by accounting for experiences that involve not only admiration and delight, but also disorientation, awe, and ethical urgency.

²⁰ Aesthetic confrontation names a more intense, often unsettling mode of encounter with the natural world (especially with phenomena like biodiversity) where the sheer complexity, scale, fragility, and contingency of ecological systems overwhelm perceptual and conceptual frameworks. It is not merely about recognizing value, but about being called into question by the aesthetic presence of a world that exceeds our categories: where appreciation invites admiration, confrontation demands humility, ethical engagement, and a recognition of our embeddedness in systems beyond our control. In this sense, aesthetic confrontation does not negate appreciation, but deepens and complicates it, especially in the context of the Anthropocene. It shifts the focus from perceiving beauty to enduring an encounter with life's excess, with ecological precarity, and with the moral implications of our belonging to the more-than-human world.

²¹ We emphasize here our intention to refer only to how this concept has been interpreted in modern times. The concept of the sublime has a long and troubled history, characterized by theoretical shifts and important changes in the areas of use of the term. For more information on the genesis and development of this aesthetic category from the treatise *On the Sublime* (Peri

focus on some key points concerning the sublime, as articulated by Immanuel Kant, a pivotal figure in the development of aesthetics. Kant's reflections offer a fundamental approach to the sublime, emphasising the interaction between human perception and the vastness of nature. Furthermore, we will also touch upon contemporary reinterpretations of Kant's ideas, examining how they have evolved and implemented in current aesthetic discourse. This approach will allow us to appreciate the enduring meaning of the sublime and its relevance in today's context.

Then, a second section (paragraph 4) will explore the significance of this proposed interpretation and its potential impact on the urgent task of promoting biodiversity conservation nowadays. To articulate this reflection more clearly, paragraph 4 is further structured into three thematic subsections: *Mathematical and Dynamical Sublime in the Experience of Biodiversity*, *Temporal Sublime and the Deep Time of Life*, and *From Kant to the Ecological Sublime*. This tripartite articulation enables a more precise examination of how different dimensions of the sublime can shape our aesthetic and ethical engagement with biodiversity. It is through this narrative that we can highlight the intrinsic value of biodiversity not only for its aesthetic richness, but also as a complex and interconnected tissue of life that demands our awe and preservation.

2. LOOKING AHEAD TO THE JOURNEY FROM BEAUTY TO THE SUBLIME

In his insightful review of Johann Georg Sulzer's (1720-1779) book *Die schönen Künste in ihrem Ursprung, ihrer wahren Natur und besten Anwendung* [*The Fine Arts in their Origin, True Nature and Best Application*], Johann Wolfgang von Goethe (1749-1832) articulates the fundamental motives and characteristics driving the transformation of aesthetic taste during the eighteenth century, particularly the evolution of the concept of the Sublime. In a thought-provoking inquiry, the esteemed German scholar asks:

Does not that which causes us unpleasant impressions belong to nature as much as that which it has which is most lovable? Are not the storms, the floods, the rains of fire, the subterranean lavas and death in all the elements as true witnesses of eternal life and nature as the sun rising magnificently over opulent vines or the orange-scented groves? What we see in nature is force devouring force: nothing remains present, everything passes away, a thousand crushed germs and every moment a thousand newly born germs [...] beautiful and ugly, good and bad, existing side by side, with the same rights²².

Goethe's observation highlights the inherent struggle within the natural world, where "force devours force", suggesting an ongoing cycle of destruction and rebirth. In this perspective, nothing remains static, and everything is in a state of flux²³. He emphasizes the coexistence of creation and decay, stating that "in every

hypsous) by the anonymous rhetorician of the 1st century A.D. known as Pseudo-Longinus up to modern times, see E. Brady, *The Sublime in Modern Philosophy*, Cambridge University Press, Cambridge 2013; R. Doran, *The Theory of the Sublime from Longinus to Kant*, CUP, Cambridge 2015; E. Franzini, M. Mazzocut-Mis, *Sublime*, in *Id., Estetica. I nomi, i concetti, le correnti*, Mondadori, Milano 2000, pp. 289-299; G. Lombardo, *Tra poesia e fisiologia. Il sublime e le scienze della natura*, Mucchi, Modena 2011; G. Panella, *Storia del sublime. Dallo Pseudo Longino alle poetiche della Modernità*, Editrice Clinamen, Firenze 2012; B. Saint-Girons, *Il sublime*, Il Mulino, Bologna 2006; *Id. Le sublime de l'Antiquité à nos jours*, Desjonquères, Paris 2025². For a detailed bibliography on the ancient and modern sublime, see: G. Lombardo, F. Finocchiaro, *Sublime antico e moderno. Una bibliografia*, Aesthetica Preprint, Palermo 1993; T.M. Costelloe, (ed.), *The Sublime from Antiquity to the Present*, CUP, Cambridge 2012, pp. 275-294; Longino, *Il Sublime*, a cura di G. Lombardo, Aesthetica-Mimesis, Milano 2022⁴, pp. 259-279.

²² J.W. Goethe, *Die schönen Künste in ihrem Ursprung, ihrer wahren Natur und besten Anwendung betrachtet von J. G. Sulzer* (1772), in *Id., Werke. Hamburger Ausgabe*, hrsg. Von E. Trunz, Hamburg 1948-1960, vol. XII, pp. 17-18.

²³ For further information on Goethe's scientific interests, see F. Amrine, F.J. Zucker (eds.), *Goethe and the sciences: a reappraisal*, D. Reidel Publishing Company, Dordrech (Holland) 1987; O. Breidbach, *Goethes Metamorphosenlehre*, Wilhelm Fink Verlag, München 2006; R. De Biase, *I saperi della vita. Biologia, analogia e sapere storico in Kant, Goethe e W. V. Humboldt*, Gian-

moment, a thousand crushed germs exist alongside a thousand newly born germs”, illustrating the continuous interplay between beauty and ugliness, goodness and evil, all equal in the grand scheme of existence.

For centuries, natural phenomena classified as *loci horridi* – including towering mountains, turbulent oceans, dense forests, glaciers, unstable volcanoes and desolate deserts – were largely viewed with fear and awe. Many people avoided these landscapes due to feelings of insignificance in their presence and fear of their intrinsic dangers. However, in the 18th century this perception began to shift, allowing these once-terrifying places to be reinterpreted as “sublime” spaces²⁴. This reassessment signifies a pivotal moment in the development of aesthetics, marking what can be described as a profound *aesthetic schism*. This schism contrasts the serene harmony and perfection traditionally associated with beauty against the exciting and frightening thrill evoked by the sublime. As Remo Bodei observes, the modern interpretation of the sublime is largely constructed through its oppositional characteristics, and its essence lies not in a singular definition but in the tensions it embodies. The sublime

deforms the harmonies and proportions of the beautiful established by classical aesthetics; it brings back into play the relationship with the immeasurable, the boundless, the absence of limits and structures; it refuses to crystallize sensation and imagination in rigid and accomplished forms; it implies a progressive derubrication of the beautiful to something pleasant, which does not involve intense emotions (thus returning to the original etymological meaning of *bellus*, contraction of *bonulus*: pretty, graceful, but not exalted)²⁵.

The sublime, therefore, serves as an invitation to engage in profound contemplation regarding the manifold nature of both the natural world and human experience. It reveals the capacity of pleasure and fear, beauty and horror to coexist and resonate deeply in the human mind. This interplay of emotions highlights the richness of aesthetic experience, illustrating how our understanding of beauty has evolved to encompass a broader and more complex spectrum of emotional and sensory responses. To grasp the intricate nuances of this conceptual separation, it is necessary to consider the transformed paradigms of scientific, cultural and anthropological thought that emerged during the modern era. As noted by Serena Feloj, events such as the catastrophic earthquake that devastated Lisbon in 1755 significantly impacted the collective imagination²⁶. This disaster, which resulted in the tragic loss of a large portion of the city’s population, starkly undermined the Enlightenment’s prevailing optimism and vividly demonstrated nature’s indifference to human affairs. In this context, the modern conception of the sublime began to take shape in Britain, evolving independently from the earlier rhetorical and literary frameworks established by Longinus²⁷.

nini Editore, Napoli 2011; P. Giacomoni, *Le forme e il vivente. Morfologia e filosofia della natura in J.W. Goethe*, Guida Editori, Napoli 1993; G. Giorello, A. Grieco (eds.), *Goethe scienziato*, Einaudi, Torino 1998.

²⁴ Cf. R. Bodei, *Paesaggi sublimi. Gli uomini davanti alla natura selvaggia*, Bompiani, Milano 2008, p. 75 ss. and P. Giacomoni, *Il laboratorio della natura. Paesaggio montano e sublime naturale in età moderna*, Franco Angeli, Milano 2002.

²⁵ R. Bodei, *Paesaggi sublimi*, cit., p. 19.

²⁶ Cf. S. Feloj, *The environmental sublime: an analysis beyond nature and culture*, in “Lebenswelt”, n. 21, 2022, p. 124.

²⁷ The most famous treatise about the rhetorical sublime is surely the work of the anonymous rhetorician of the first century A.D. known as Pseudo Longinus (or, more often, simply as Longinus), so named because he was long mistakenly identified with Dionysius Longinus (cf. Longino, *Il Sublime*, cit.). In this work, the sublime is presented as that rhetorical style which, because of its inherent peculiarities, is capable of elevating the reader’s soul by making him or her experience “the echo of a greatness of soul [*megalophrosyne*]”, a feeling of pride resulting from being so involved (intellectually and emotionally) in an author’s work that we believe we ourselves have written the verses we read or hear. The *editio princeps* of Longinus’ work was published in Basel in 1554 by Francesco Robortello; the first Latin version appeared in 1634 and the first English version in 1639. But it was only through Nicolas Boileau’s French translation of 1674 that it had European resonance, fostering the gradual transition from the sublime as a rhetorical category to the sublime as an aesthetic category.

This new understanding of the sublime represents what one might term «one of the absorbing therapies»²⁸ for humanity in the wake of a critical blow to its self-perception – the belief in our status as God’s favourite creatures and the apex of Nature itself. As Bodei points out, over the centuries, this belief has been progressively discredited through the convergence of three transformative revolutions that reshaped humanity’s place in the universe. First, the Copernican revolution radically disrupted traditional cosmology by reorienting the status of humankind from the centre of the universe to just one among many inhabitants of a vast sublunar realm. Following this, the Bruneian revolution further dismantled the notion of our world as the sole possibility, thrusting humanity into an infinite span of possibilities and challenges. Finally, the advancements in geological sciences have provided convincing evidence that the timeline of Earth’s creation extends far beyond the six days outlined in Genesis. This revelation projects a notion of infinity not only across spatial dimensions but also into the temporal one, further underscoring the relatively brief and “miserable” duration of human existence when viewed against the deep time of the planet. In summary, the modern concept of the sublime condenses a profound response to the existential crises caused by these revolutions, inviting human being to grapple with the complexities of existence in an indifferent universe.

This reconciliation of beauty and terror, alongside the recognition of our place within an expansive and ancient cosmos, enriches our understanding of both nature and the human condition. Bodei states that the human being,

who finds himself suddenly dispossessed of his former dignity, deprived of his throne, pushed into the “bilge of the world”, into a “dark prison” at the edge of the cosmos, is in danger of becoming insignificant in his own eyes [...]. With the idea, of protagorean origin, of man as the “measure of all things,” also dissolves the relationship of symmetry, strongly emphasized by Renaissance neo-platonism, between man as microcosm and the universe as macranthrope, or great man. Nature, having become extraneous, is no longer reflected in us in the same way, just as we are not reflected in it²⁹.

Then, the sublime appears on the one hand as an attempt to find an “emotional compensation” for the humiliation suffered, and on the other hand as a conceptual category that can unexpectedly open us to a new understanding of the natural reality (in the original sense of the word “understanding” corresponding to the Latin term *cumprehendere*, that is, “grasping together”)³⁰ and centred on the principle of humility. For this reason, in our view, it is appropriate to dwell briefly on the Kantian concept of the sublime, which more than any other seems to be built on the polarity of these dimensions.

3. THE CONCEPT OF THE SUBLIME IN IMMANUEL KANT’S *KRITIK DER URTEILSKRAFT*

In this brief discussion, we will not focus on analysing the historical evolution of the concept of sublime as it appears in Kant’s works, from his pre-critical to his critical period³¹. We will also not explore the theoret-

²⁸ R. Bodei, *Paesaggi sublimi*, cit., p. 22.

²⁹ *Ivi*, p. 24.

³⁰ Cf. *ivi*, p. 31.

³¹ Reflections on the concepts of the beautiful and sublime are already present in earlier Kantian works, especially, as is well known, in *Beobachtungen über das Gefühl des Schönen und Erhabenen* (in Id., *Kant’s gesammelte Schriften*, Bd. 11, Insel-Verlag, Leipzig; transl. by R. Assunto, R. Hohenemser, *Osservazioni sul sentimento del bello e del sublime*, in Id., *Scritti precritici*, Laterza, Roma-Bari, 1953, pp. 291-346) of 1764, a text in which, however, a psychological-phenomenological approach and a strong interest in the literary declination of the concept prevail (many examples are in fact of literary origin, with particular reference

ical connections between Kant and his British and Scottish predecessors³². Instead, we intend to examine the possibility of constructing not just an environmental sublime – which has already been attempted – but rather an *ecological and biodiverse sublime*.

To establish the theoretical context of the Königsberg philosopher's discussion of the sublime in his *Kritik der Urteilskraft*³³, we should first note that he spends the first twenty-two paragraphs outlining an *Analytik des Schönen* [*Analytic of the Beautiful*]. During this section, he systematically addresses the four moments of the judgment of taste that he identifies³⁴. Following this, Kant dedicates the next seven paragraphs to the *Analytik des Erhabenen* [*Analytic of the Sublime*]³⁵, where he confronts a unique experience in which «the human being is no longer simply transported elsewhere by the sublime but feels wounded and profoundly affected by the awareness of the terrible»³⁶ because, as Giacomoni points out, «the theme of the sublime introduces conflict into aesthetics»³⁷.

In §23, the first paragraph of the section dedicated to the sublime, titled *Übergang von dem Beurteilungsvermögen des Schönen zu dem des Erhabenen* [*Passage from the faculty of judging the beautiful to the faculty of judging the sublime*], Kant explores the essential aesthetic distinction between the beautiful and the sublime³⁸. He states that both concepts are linked with aesthetic judgments, reflecting a deep engagement with our perceptions of art and nature. These judgments, characterized as *reflective*, arise from a judgment of an object or an experience rather than deriving from any personal interest or desire. Despite being inherently subjective, they are regarded as singular assessments that strongly assert a claim to universality, suggesting that the appreciation of beauty and sublime transcends individual perspectives and resonates within a broader, shared human experience. However, in the second paragraph, Kant highlights that «between them there are also significant differences that are evident»³⁹.

Beauty is characterized as that which is pleasing due to the object's *form* and its *morphological configuration*. This form must be clearly defined, delimited, and accomplished. Such limitations are essential because they are relating to the concept of *Begrenzung* – the idea of boundaries – and play a crucial role in the functioning of the intellect. Intellect acts as a faculty that delineates and organizes our perceptions, helping us make sense of the world around us⁴⁰. This intrinsic connection between form and limitation is why beauty *resonates profoundly with our being*. It evokes an emotional response that is derived from a sense of harmony, emerging from the delicate balance between our intellect, imagination, and sensory sensitivity. Furthermore, for Kant, beauty is not a trait that can be catalogued alongside other properties of an object. Instead, it manifests itself as a feeling that arises from the interaction between the subject – the individual who judges – and the object of judgment, which contemporary Environmental Aesthetics may refer to as

to the tragic genre and to some Homeric characters and modern authors. For an in-depth analysis of the concept of the sublime in the Kantian bibliographical path see S. Feloj, *Il sublime nel pensiero di Kant*, Morcelliana, Brescia 2013.

³² A key reference for anyone examining the events that led to the writing of the Third Kantian *Critique* is the article by G. Tonelli entitled *La formazione del testo della "Kritik der Urteilskraft"* (in "Revue Internationale de Philosophie," vol. 8, n. 30, 1954/4, pp. 423-448). This article carefully reconstructs the stages of progress related to the drafting of the work by analysing the presence or absence of certain key terms, such as "faculty of judging", "reflective and determining judgment", and "finality".

³³ I. Kant., *Critica della facoltà di giudizio*, cit.

³⁴ *Ivi*, pp. 39-79.

³⁵ *Ivi*, pp. 80-102.

³⁶ B. Saint-Girons, *Il sublime*, cit., p. 123.

³⁷ P. Giacomoni, *Il laboratorio della natura*, cit., p. 154.

³⁸ I. Kant, *Critica della facoltà di giudizio*, cit., pp. 80-82.

³⁹ *Ibid.* These differences are later pointed out in the *Allgemeine Anmerkung zur Exposition der ästhetischen reflectierenden Urtheile* [*General Note to the Exposition of Reflective Judgments*] (*ivi*, pp. 102-115).

⁴⁰ *Ivi*, p. 80.

the object of “aesthetic appreciation”⁴¹. Therefore, the experience of beauty becomes a source of positive pleasure; it is a feeling that develops from the unique harmony cultivated between us and the entity we recognize as beautiful. This harmony creates a profound sense of fulfilment and contributes to an “exaltation of life” [*Beförderung des Lebens*]⁴². It is characterized as a “quiet” emotion, without pain, and perhaps for this reason, it is often experienced as less intense compared to the emotion invoked by the sublime. In essence, while the sublime can provoke a powerful and sometimes frightening experience, beauty offers a serene sense of joy and happiness, enriching our lives in subtle yet meaningful ways.

The sublime is intricately connected to the notion of limitlessness [*Unbegrenztheit*], which is contemplated in its entirety [*Totalität*]. This concept suggests that the sublime involves an intense emotional response provoked by experiences that *lack form or boundaries*. Rather than merely evoking a sense of calm, the sublime challenges our intellect and rationality, particularly when faced with the overwhelming phenomena of nature that exceed our intellectual capacity. This experience is not a passive encounter; it requires engagement with both the cognitive faculties and the broader, unconditioned aspects of reason. As we confront the vastness of the sublime, we find ourselves oscillating between sensory imagination and rational thought, leading to a complex array of feelings – not just tranquillity but also trembling, instability, and agitation, described as *Unlust*. Such an encounter can have a paradoxical effect: it can diminish one’s sense of vitality, instilling feelings of distress as one confronts the great spectacle of existence, which may even evoke the phantom of physical annihilation. In this state, individuals are not only confronted with their own vulnerabilities but also forced to test their psychological resilience and moral persistence⁴³.

The philosopher from Königsberg emphasizes that in the face of the sublime, there is no opportunity for the delightful play of our faculties. Instead, we are thrust into a realm where only the *seriousness of reason prevails*⁴⁴, compelling us to estimate the depth of our experiences and the profound nature of our existence. Thus, the sublime becomes a crucial set for understanding the interaction between human emotion, intellect, and the vast, often mysterious realities of the world around us.

To fully grasp the complexities of those characters, it is essential to first highlight that the concept of the sublime, as articulated by Immanuel Kant, is characterized as a form of “negative pleasure.” In this context, the term “negative” does not carry a bad connotation; it is only referred to the profound responses caused in us when we confront the vastness and power of natural entities – such as high mountains, tumultuous seas, or starry skies – that overwhelm our cognitive faculties. These encounters provoke within us what Kant describes as “a motion or a shaking of the soul” [*Bewegung des Gemüts*], primarily because they challenge our intellectual and imaginative capacities. Instead of harmonizing as they do during experiences of taste and aesthetic enjoyment, our faculties stumble under the weight of these awe-inspiring phenomena, leading to a complex emotional response.

⁴¹ Kant’s inquiry into aesthetics is deeply intertwined with his broader philosophical project, which primarily focuses on transcendental analysis. He is not merely concerned with the external characteristics of objects but rather seeks to uncover the underlying conditions that make such aesthetic experiences possible. By shifting the focus from the properties of objects to the faculties of the subject, Kant opens up new avenues for understanding the nature of beauty and the human experience of art, culminating in a revolutionary perspective that still influences contemporary discussions in aesthetics. Cf. R. Assunto, *L’estetica di Immanuel Kant*, Loescher, Torino 1971 and E. Cassirer, *Kants Leben und Lehre*, Verlag bei Bruno Cassirer, Berlin, 1918; transl. by G.A. De Toni, *Vita e dottrina di Kant*, Castelveccchi, Rome 2016.

⁴² I. Kant, *Critica della facoltà di giudizio*, cit., p. 80.

⁴³ P. Giacomoni, *Il laboratorio della natura*, cit., p. 154.

⁴⁴ I. Kant, *Critica della facoltà di giudizio*, cit., p. 81. Cf. also, E. Cassirer, *Vita e dottrina di Kant*, cit., pp. 292-293.

As we stand before these monumental forces, we initially experience a blend of respect and esteem [*Achtung*] for the object of our contemplation. This respect is multi-faceted; it encompasses both our recognition of an object's significant value and engages with deeper philosophical notions found in the Latin term *reverentia* and the Greek term *aidos*. Both terms encapsulate a sense of “reverential fear”, reflecting human beings' complex emotional relationship to power and greatness that feels almost divine⁴⁵. In this sense, the “divine” here is understood as that which lies beyond measurable bounds – the *metron* – exceeding human limitations. This complex attitude of awe, which is both an appreciation and a form of emotional submission, can be felt toward laws or broader societal structures, like the *polis*. On the contrary, its opposite, the term *hybris*, embodies the arrogance that tempts us to transcend our intrinsic limitations.

This mix of reverence and admiration is surprisingly juxtaposed with a profound feeling of discomfort or displeasure. This latter arises from our recognition of our inferiority in the face of such greatness, creating a tension between our aspirations and our limitations. However, it is within this crucible of confrontation that we discover the second moment of the sublime experience. In this moment, a twist occurs: the initial discomfort is transformed into a sense of self-esteem and personal empowerment. As Kant suggests, it is through this passage beneath the metaphorical arm of humiliation and intimidation that the sublime ultimately generates a “negative pleasure”⁴⁶. This complex emotional experience allows us to transcend our feelings of inferiority, revealing a path to self-affirmation that is rooted in our encounter with the extraordinary. Thus, while the sublime begins with a sting of discomfort, it evolves into a profound acknowledgment of our own place within the greater tapestry of existence⁴⁷.

Kant introduces a nuanced distinction within the concept of the sublime that contrasts sharply with the definitions outlined in his *Analytic of the Beautiful*. This distinction is particularly significant when we consider the several natural entities that can evoke an apparent impasse in our cognitive faculties.

The first experience described by the philosopher is that of the *mathematical sublime*. It unfolds when we confront ourselves with the grandeur of nature's most imposing spectacles, such as the vastness of the night sky, the limitlessness of a desert, or the overwhelming scale of a glacier. These manifestations of nature's majesty invoke a profound sense of physical smallness compared to the *cosmos*, activating an internal struggle that pushes us toward a metaphorical *abyss* [*Abgrund*]. In this moment, we confront the unsettling sensation of potentially losing our identity and the very criteria that anchor our understanding. Kant elaborates on this experience, describing it as a rupture of a prior state of equilibrium, which leads to a dissonance in our ability to grasp the new object of contemplation – its dimensions, its essence, and its impact on our psyche. This conflict produces a state akin to aphasia, wherein we struggle to represent our sensory overload, reaching the limit of our purely sensitive faculties and, particularly, our imagination⁴⁸.

⁴⁵ Cf. E. Borgnino, *Ecologie native*, elèuthera, Milano 2022, p. 61: «Respect, etymologically *resp ctu*, “looking back,” is that feeling which induces one to acknowledge rights, role, dignity and decorum to persons or things while refraining from causing them offense. The dynamic of respect involves two distinct positions: that of the one who acknowledges respect, who stands in front, and that of the one to whom it is acknowledged, who stands in a subordinate position. Respect for the environment, to which today's media and movements for the protection of the planet refer, does not dialogue and establish reciprocal relations with the collective beyond-that-human, but urges conservation, regarding resources for the survival of the human species».

⁴⁶ R. Bodei, *Paesaggi sublimi*, cit., p. 49.

⁴⁷ Cf. I. Kant, *Critica della facoltà di giudizio*, cit., p. 93.

⁴⁸ P. Giacomoni, *Il laboratorio della natura*, cit., p. 155.

Yet, the mathematical sublime possesses a deeply “vibrant” dimension because it is characterized as a genuine passage or transformation, like the journey depicted in a coming-of-age novel. In fact, the individual fights with an intimate distrust of their own capabilities, but he emerges reinvigorated, empowered by the realization that the humbling experience of insignificance is complemented by the exaltation of human reason. Indeed, while our physical stature may seem inadequate in the face of infinite vastness, it is counterbalanced by the grand potential of our cognitive faculties. As we gaze upward at the infinite sky filled with countless stars, our initial instinct is to perceive it as a sublime reality, as something inherently magnificent in an absolute sense. However, this perception is soon complicated by the recognition of the limitations of our sensory experiences, which inhibit our capacity to fully comprehend the infinite. Despite this limitation, we possess the outstanding ability to hypothesise galaxies, universes, several solar systems, and beyond, enabling us to engage in thought processes that transcend our immediate sensory perceptions.

In this lies the critical moment of “discovery”: our limitations can be reframed as a source of greatness, illuminating the surprising power of our reason to transcend those limits. In this act of self-exaltation, we celebrate our rational faculties, which empower us to contemplate the infinite while remaining grounded in our finite existence.

The second typology of sublimity, known as the *dynamic sublime*, is experienced when we observe the overwhelming manifestations of nature’s power [*Macht*], such as aggressive storms, erupting volcanoes, devastating hurricanes, or catastrophic tsunamis⁴⁹. These awe-inspiring natural phenomena evoke a profound sense of our own *insignificance* and *vulnerability* in the face of such formidable forces. When we observe these events from a place of safety, we often experience an initial feeling of material littleness and helplessness, because the sheer magnitude of nature’s frightens and humbles us. Yet, paradoxically, this confrontation with nature’s overwhelming power can provoke a complex emotional response. Within fear and awe, we also feel a rise of negative pleasure, deriving from a deep recognition of our own spiritual and intellectual capabilities. In these moments of reflection, we affirm our identity as *rational beings*, endowed with the capacity for thought and the moral understanding that distinguishes humanity. This dual experience encapsulates the essence of the dynamic sublime: it is a confrontation that simultaneously exposes our fragility while elevating our sense of self as thinkers and moral agents within the cosmos⁵⁰.

Without examining the intricate mechanisms behind the clash of our cognitive faculties that shape the concept of the Kantian sublime, it is essential to highlight a common thread that connects the two types of Kantian sublime. In both cases, the experience of sublimity emerges from our confrontation with an entity that is perceived as *formless, unlimited* (either in its magnitude or its power) and deeply *indeterminate*. This encounter introduces a dual sense of humility and awe within us: on the one hand, we are humbled by the awe-inspiring grandeur of this entity, and on the other, we face the potential danger of being annihilated by its unrestricted power. Through these confronts, human beings are constantly engaged in a quest for a renewed sense of self-esteem and self-worth. It is within this dynamic interplay of emotions and perceptions that we come to a profound insight. As Bodei suggests, the essence of the

⁴⁹ For a detailed explanation of the distinction between mathematical and dynamic sublime, F. Menegoni, *La Critica del Giudizio di Kant. Introduzione alla lettura*, Carocci, Roma 1995, p. 95. For a meticulous treatment of the mathematical sublime and its inner workings cf. H. Hohenegger, *Note per un’interpretazione dell’analitica del sublime matematico in Kant*, in G. Traversa (ed.), *Il trascendentale nella “Critica del Giudizio”*, Il Cannocchiale, Napoli, 1990 pp. 155-188.

⁵⁰ Cf. S. Feloj, *The environmental sublime: an analysis beyond nature and culture*, cit., p. 124.

sublime does not reside only in the towering heights or the great vastness of the universe around us, but rather in the innate human capacity to perceive a higher purpose and destination as rational beings. This notion of rising above oneself is emotionally condensed in the German term for the sublime, *das Erhabene*, which derives from the verb *erheben*, meaning “to lift up”⁵¹.

4. TOWARDS A SUBLIMELY BIODIVERSE WORLD

In alignment with Kiester’s perspective, we propose that the concept of the sublime – briefly articulated here through the lens of the Kantian notion of the sublime – can offer a valuable approach to exploring biodiversity from an aesthetic standpoint⁵². If we redirect our focus from the concrete visual valuation of individual organisms to a more expansive understanding of biodiversity as an all-embracing concept, we begin to recognize a departure from the harmonious relationship traditionally described by Kant in his notes on the *Analytic of the Beautiful*. Instead of limiting our inquiry to questions that evaluate the beauty of a specific oak tree or a particular breed of feline, we will broaden our perspective to encompass the entire biosphere, revealing that its incredible variety – from the microscopic world of bacteria and single-celled organisms to the fascinating forms of plants and the vast array of animals – leads us to confront a multiplicity that is both profound and astonishing. As Kant argues, this multitude evokes a reaction that transcends the concept of beauty, inviting us into the realm of the sublime. In this view, the sublime becomes a framework for understanding not only the aesthetic value of biodiversity but also the ethical and philosophical implications of our relationship with the environment.

Mathematical and Dynamical Sublime in the Experience of Biodiversity

As Elisabetta Di Stefano properly emphasizes, the richness of life on Earth is the result of a complex system of relationships between people, animals, plants, traditions and cultures⁵³. It is true that biodiversity, especially in scientific and policy contexts, is often defined through measurable indices of differentiation – such as species richness, genetic variation, or ecosystem variety. However, our proposal does not deny the importance or validity of this empirical framework. Rather, it suggests that alongside this quantitative and differentiated understanding, biodiversity can also be perceived aesthetically as a phenomenon that exceeds enumeration and resists total representation.

As we pointed out in the previous paragraph, the mathematical sublime, in Kantian terms, arises when the mind confronts something that overwhelms the faculties of imagination and understanding. While biodiversity is often accessed through functional taxonomies and numerical classifications, we argue that the cumulative effect of its overwhelming complexity – its scales of interaction, emergent dynamics, evolutionary contingency, and systemic fragility – can give rise to a qualitatively different aesthetic reaction, one that resembles the experience of the sublime.

⁵¹ R. Bodei, *Paesaggi sublimi*, cit., p. 48.

⁵² Cf. A.R. Kiester, *Aesthetics of biological diversity*, cit. Cf. also R.G. Ribe, *Commentary on “Aesthetics of Biological Diversity*, in “Human Ecology Review”, vol. 3, n. 2, 1997, pp. 158-163.

⁵³ E. Di Stefano, *Biodiverso*, in E. Di Stefano, D. Mantoan (eds.), *Libro d’arte biodiverso. Parole e immagini tra estetica, arte e ambiente*, Bisso Edizioni, Palermo 2024, p. 5.

When we pause to reflect on the concept of biodiversity, we are confronted with the great complexity of species that have existed throughout history, both those that live today and those that have become extinct. This immensity presents a formidable challenge to human comprehension because, in this context, the human mind tries to reconcile the enormity and intricacy of natural phenomena with its finite capacity for understanding. To illustrate this point, one needs only to consider the remarkable diversity found within the insect class. This group alone embraces a dizzying range of orders, including *Beetles*, *Hemiptera*, *Diptera*, *Hymenoptera*, *Lepidoptera*, *Orthoptera*, *Ephemeroptera*, *Odonata*, *Phasmida*, and many others, each further divided into families, genera, species, and numerous varieties. The attempt to grasp the number of insect species on Earth (possibly in the millions), or the impossibility of mapping the full genomic diversity of a single tropical forest, can produce a sense of epistemic vertigo and wonder that goes beyond classificatory logic.

However, while the sublime mathematical, according to Kant's definition, implies the effort of the mind to understand immeasurable quantities, arousing a sense of superiority through the triumph of reason, this picture proves insufficient when applied to the aesthetic experience of biodiversity. In fact, the immensity of biodiversity does indeed exceed the imagination, as in the Kantian model, but it also confronts us with ecological fragility, radical interdependence and the limits of human dominion. In other words, the sublime of biodiversity is not based on the power of the rational subject to understand or morally transcend nature, but rather on the destabilisation of that subject itself: it challenges the Kantian narrative of human autonomy by revealing our rootedness in fragile, unpredictable and co-evolving systems, because it invites us to recognize the value of every life form and the delicate balances that sustain an ecosystem.

On the other hand, biodiversity offers a compelling lens through which to experience nature's inherent duality: it reveals both the generative vitality of life and its capacity for destruction and collapse, at once a source of awe and anxiety. When we reflect on the forces of life in their fullest scope, we cannot ignore the charismatic presence of large wild animals – wolves, lions, tigers, jaguars – which evoke a complex mixture of admiration and fear. These animals are not only majestic in their beauty and strength, but also emblematic of nature's ungovernable power, its indifference to human concerns.

In stark contrast, we are equally shaped by our encounters with life at its smallest and most invisible scale: viruses, bacteria, and microscopic agents that, though lacking aesthetic appeal in the traditional sense, exert a profound and often devastating influence on human history. These minuscule organisms have been responsible for some of history's most significant infectious diseases, that have altered the course of human events and shaped our collective consciousness. From the plague to malaria to the recent Covid-19 pandemic, these biological agents reveal the extent to which our existence remains precariously entangled with other-than-human forms of life. They remind us that biodiversity is not only a source of wonder and variety, but also of vulnerability and disruption: these epidemics highlight our vulnerability, reminding us that despite advancements in science and medicine, we remain subject to the impulses of natural forces.

It is in this tension – between fascination and fear, between beauty and threat – that Kant's conception of the dynamic sublime becomes particularly resonant. The overwhelming power of natural forces, whether vast or minuscule, inspires a complex aesthetic response: a simultaneous sense of attraction and dread, admiration and humility. He suggested that facing the vast and powerful forces of nature can evoke complex emotions, often linking awe with fear and a sense of powerlessness. This intrinsic

relationship with nature – where admiration meets concern – juxtaposes our longing for control against the persistent and unpredictable power of the natural world. But unlike Kant’s emphasis on the rational subject’s moral elevation over nature, what emerges here is a more situated and ecological version of the sublime – one in which the subject is not exalted above nature’s violence and fragility but implicated within it.

Temporal Sublime and the Deep Time of Life

The reflections made so far lead us to ask ourselves if the reflections grounded in the concepts of the mathematical and dynamic sublime adequately address the complexities inherent in biodiversity’s sublime character. We believe that Kant’s two types of sublimates do not fully encompass the scope of the phenomenon of biodiversity. To promote a more comprehensive ecological interpretation of the sublime, it is essential to investigate a crucial aspect of biodiversity that not only recognizes but also extends beyond previous concepts, facilitating a richer appreciation of the grandeur that biodiversity embodies.

To frame this discussion, we begin with an almost self-evident truth for humanity in the 21st century: the remarkable diversity of nature has evolved over eras, representing profound evidence of the vitality of life. This vitality manifests through myriad processes of evolution, transformation, and gradual complexification realized into geological epochs. Central to this ongoing narrative is the notion of *internal intussusception* articulated by 19th-century Prussian zoologist Ernst Haeckel⁵⁴, often regarded as the father of scientific ecology⁵⁵. Haeckel’s concept of “internal intussusception”⁵⁶ serves as a pivotal lens through which we can examine the depth of life. This intricate term describes the intrinsic capacity of living organisms to transform and adapt from within, a process distinct from merely accumulating external materials. A com-

⁵⁴ Ernst Haeckel, a zoologist at the University of Jena, was one of the most influential figures of late 19th-century European Darwinism and, together with Thomas H. Huxley (1825-1895), contributed more than anyone else to the popularization of evolutionary theory and the struggle for its acceptance in academic circles. For more information about Haeckel’s life, see W. Bölsche, *Ernst Haeckel. Ein Lebensbild*, Hermann Seemann Nachfolger, Berlin – Leipzig 1900; transl. by J. McCabe, *Haeckel. His life and works*, George W. Jacobs and Co., Philadelphia 1906; E. Haeckel, *Ernst Haeckel. Eine autobiographische Skizze*, in Id., *Ernst Haeckel. Gemeinverständliche Werke*, hrsg. von H. Schmidt, A. Kröner und C. Henschel Verlag, Leipzig – Berlin 1924, pp. IX-XXXII; E. Krauß, *Ernst Haeckel. Biographien hervorragender Naturwissenschaftler*, BSB B. G. Teubner, Leipzig 1984 and G. Uschmann (ed.), *Ernst Haeckel. Forscher, Künstler, Mensch*, Urania Verlag, Leipzig – Jena – Berlin 1961. For a brief overview of his ideas, see E. Canadelli, *Icone organiche. Estetica della natura in Karl Blossfeldt ed Ernst Haeckel*, Mimesis, Milano – Udine 2006; M. Di Gregorio, *From Here to Eternity. Ernst Haeckel and Scientific Faith*, Vandenhoeck Ruprecht, Göttingen 2005; V. Maggiore, *Ernst Haeckel tra Estetica e Morfologia. Un pensiero che prende forma*, QuiEdit, Verona-Bolzano 2020; Ead., *L’estetica biologica di Ernst Haeckel tra evoluzionismo darwiniano e morfologia goethiana*, in A. Mecarocci, V. Rasini (eds.), *A proposito di organismi, evoluzione e conoscenza*, Meltemi, Milano 2023, pp. 95-112; Ead., *Ernst Haeckel e la Storia della creazione naturale*, in E. Haeckel, *Storia della creazione naturale. Conferenze scientifico-popolari sulla teoria dell’evoluzione in generale e su quella di Darwin, Goethe e Lamarck in particolare. Parte prima*, ed. by V. Maggiore, Mimesis, Milano-Udine 2024, pp. 11-66; R.J. Richards, *The Tragic Sense of Life. Ernst Haeckel and the Struggle over Evolutionary Thought*, The University of Chicago Press, Chicago 2008.

⁵⁵ Haeckel deserves credit for having coined numerous technical terms in his most important work, *Generelle Morphologie der Organismen* (E. Haeckel, *Generelle Morphologie der Organismen. Allgemeine Grundzüge der organischen Formen-Wissenschaft, Mechanisch begründet durch die von Charles Darwin reformierte Deszendenz-Theorie*, G. Reimer, Berlin 1866). Some of the terms he introduced include *monophyletic*, *palingenesis*, *coenogenesis*, *ecology*, *monera*, *phylogeny*, *ontogenesis*, *disteleology*. While only some of these terms (like ecology) have become widely used, they all contributed to enriching the scientific vocabulary of the time. So, the *Generelle Morphologie der Organismen* can be viewed as an *encyclopedic dictionary*, a comprehensive compendium that has significantly influenced the biological lexicon.

⁵⁶ Cf. *ivi*, Bd. 1, p. 27 ss. There are significant differences between organic and inorganic organisms in terms of their structural formation. Inorganic entities grow through a process called external apposition, where molecules like the material of their bodies accumulate around a specific central point. This type of growth is purely dimensional, meaning it results in an increase in size without any qualitative change. In contrast, organic organisms grow through a process known as intussusception, as described by Haeckel. This mechanism not only involves an increase in size but also brings about internal modifications within the organism. During this process, new organs develop, promoting both morphological and functional diversification.

elling example of internal diversification can be observed in the developmental trajectory of an embryo. From a single cell, it undergoes a series of complex transformations, ultimately becoming an organism of intricate form and function.

This remarkable potential for internal adaptation and diversification has enabled life to persist and flourish, becoming increasingly complex over millions of years, weaving a rich tapestry of biological history across the planet. Yet, it is essential to recognise that this transformative process does not reveal within the linear confines of our everyday experience; rather, it stretches across what geologists refer to as *deep time*. This *expansive temporal framework* provides a context for the profound geological and biological shifts that have shaped our Earth, such as the breakup of the supercontinent Pangaea or the emergence of vast and diverse marine ecosystems. It is through the broad lens of deep time that we can begin to appreciate the ongoing dance of diversity and the gradual yet monumental evolution of life, inviting us to reflect on the sublime narrative connected through the fabric of all living beings.

The “time of the organic” stands in stark contrast to the concept of deep time: it is primarily characterized by the lived experiences of organisms, which comprehensively disclose a scale that is much shorter than the infinite expanse of deep time. Our understanding of the deep time is inherently limited, and thus it eludes our direct experience. Instead, we can only perceive its magnitude through our imagination, which suggests feelings of shock, insignificance, and a sense of regret arising from our cognitive inadequacies. This effort to grasp such an immense temporal framework leads us to contemplate what we might call a *sublime temporal experience*.

From Kant to the Ecological Sublime

The fact that the concept of biodiversity is linked in the three ways we have outlined here (mathematical, dynamical and temporal sublime) to something that is elusive through human perception and experience should make us feel a sense of respect for nature, whose creative power is disruptive, enormous, magnificent. In Kant, however, the experience of the sublime begins with an initial moment of disorientation, followed by a second moment where the human spirit reflexively recognizes its own sublimity. In this view, the capacity of human reason allows us to “control” or rationalize the devastating power of nature, illustrating our dual role not only as dominators of the natural world but also as participants in the realm of freedom.

The realisation that humans, directly or indirectly, are primarily responsible for the alarming rate of biodiversity loss adds a critical element to this debate. This recognition has led many to define the current geological epoch as the *Anthropocene*⁵⁷, emphasising the profound impact of human activity on Earth’s ecosystems. This recognition seems to align perfectly with Kant’s framework of sublime experience, in which the magnitude of our actions prompts moral reflection on our place within nature. This intersection between human influence and the concept of the sublime is one of the most controversial themes in contemporary aesthetic debates on the sublime⁵⁸. This is an area where consensus is difficult to achieve, as we are grap-

⁵⁷ For an analysis of the theoretical relationship between aesthetics and the theory of the Anthropocene cf. V. Maggiore, *L’Estetica nell’età dell’Antropocene: i molteplici volti della riflessione estetica contemporanea sulla natura*, cit.; Ead., *Sentire la natura nell’età dell’Antropocene*, cit..

⁵⁸ The contemporary debate on the possibility of an environmental and ecological sublime is particularly lively. On the relevance of the concept for contemporary environmental aesthetics cf. E. Brady, *Reassessing Aesthetic Appreciation of Nature in the Kantian Sublime*, in “The Journal of Aesthetic Education”, vol. 46, n. 1, 2012, pp. 91-109; Ead., *The Environmental Sublime*, in T. Costelloe (ed. by), *The Sublime. From antiquity to the present*, cit., pp. 171-181; R.W. Hepburn, *The Concept of the Sublime*:

pling with the complexity of understanding our role and responsibilities within the natural order. Engaging with these ideas not only enriches our appreciation of biodiversity but also challenges us to reconsider our relationship with the environment, promoting a collective awareness that is urgently needed in our time.

The proposal we present here, supported by insights from leading figures in the evolution of aesthetics after Kant, advocates a fundamental change of perspective. We suggest that the profound recognition associated with the second moment of the feeling of the sublime does not derive from a sense of moral superiority over nature (conceiving this as a domain opposed to that of culture), but rather from an acknowledgment of our intrinsic connection to it⁵⁹. This standpoint echoes the transformative ideas of Arthur Schopenhauer (1788-1860), who, in his reinterpretation of the sublime, articulated a vision where the sublime experience emerges from understanding ourselves as integral expressions of the natural world. Schopenhauer argued that true aesthetic appreciation arises when we transcend egocentric perspectives, leading to a harmonious recognition of our place within the vast tapestry of existence. This perspective invites us to reconsider our relationship with nature, suggesting that the sublime can inspire a sense of unity and empathy rather than isolation and domination. This, for example, is what Schopenhauer wrote in his reinterpretation of the concept of the sublime:

If we lose ourselves in contemplation of the infinite greatness of the universe in space and time, meditate on the past millennia and on those to come; or if the heavens at night actually bring innumerable worlds before our eyes, and so impress on our consciousness the immensity of the universe, we feel ourselves reduced to nothing; we feel ourselves as individuals, as living bodies, as transient phenomena of will, like drops in the ocean, dwindling and dissolving into nothing. But against such a ghost of our own nothingness, against such a lying impossibility [...] The vastness of the world, which previously disturbed our peace of mind, now rests within us; our dependence on it is now annulled by its dependence on us. All this, however, does not come into reflection at once, but shows itself as a consciousness, merely felt, that in some sense or other [...] we are one with the world, and are therefore not oppressed but exalted by its immensity. It is the felt consciousness of what the Upanishads of the Vedas express repeatedly in so many ways, but most admirably in the saying already quoted: *Hae omnes creaturae in totum ego sum, et praeter me aliud (ens) non est*. It is an exaltation beyond our own individuality, a feeling of the sublime⁶⁰.

Has It Any Relevance for Philosophy Today?, in “Dialectics and Humanism”, vol. 15, issues 1-2, 1988 pp. 137-155; C. Hitt, *Toward an ecological sublime*, in “New literary history”, n. 30, 1999/3, pp. 603-623; V. Maggiore, *Environmental Aesthetics and “being moved by nature”*. *Reflections for rethinking the theory of the sublime*, in “Studi di estetica”, n. 26, 2023/2, pp. 157-184. On the relationship between the sublime and the Anthropocene cf. instead: A. Borsari, *On the Aesthetics of the Anthropocene The Sublime and beyond – other Concepts and Forms of Visualizations*, in “European Journal of Creative Practices in Cities and Landscapes”, vol. 5, n. 2 (2022), pp. 242-258; P. De Rosa, *Del sentire ecologico. Sulla persistenza e l'evoluzione dei motivi del Sublime e del Perturbante nel sentimento ecologico contemporaneo attraverso una lettura critica dell'estetica ecologica*, Doctoral thesis discussed at the University of Tor Vergata – PhD programme in Philosophy, 36th cycle, 2024; J.-B. Fressoz, *L'Anthropocène et l'esthétique du sublime*, in H. Guenin (éd. par), *Sublime. Les tremblements du monde*, Metz, Centre Pompidou-Metz, Paris 2016, pp. 44-49; Id., *The Anthropocenic Sublime. A critique*, in M. Boyde, (ed.), *Climate and American Literature*, Cambridge University Press, Cambridge 2021, pp. 288-299; G. Ray, *Terror and the Sublime in the So-Called Anthropocene*, in “Liminalities: A Journal of Performance Studies”, vol. 16, n. 2, 2020, pp. 1-19.

⁵⁹ For further information on the romantic sublime, in addition to the texts already mentioned in note 8, we also refer you to P. Giordanetti, M. Mazzocut-Mis (eds.), *I luoghi del sublime moderno. Percorso antologico-critico*, LED, Milan 2005 and G. Pinna, *Il sublime romantico. Storia di un concetto sommerso*, Aesthetica Preprint, Palermo 2007.

⁶⁰ A. Schopenhauer, *Die Welt als Wille und Vorstellung*, F.A. Brockhaus, Leipzig 1819; transl. by E.F.J. Payne, *The World as Will and Representation, Vol. 1*, Dover Publications, New York 1969, p. 205. We should remember that, although Schopenhauer's position differs from Kant's, he was one of the first to recognize the value of Kant's theory of the sublime. See, for example, what the philosopher states in the appendix to *Die Welt als Wille und Vorstellung*, entitled *Appendix. Critique of Kantian philosophy*: “the far more excellent thing than the critique of aesthetic judgment is the theory of the sublime: it has succeeded incomparably better than that of the beautiful, and provides not only, like that, the general method of investigation, but also a piece of the right path for it, so much so that, even if it does not give the real solution to the problem, it still comes very close to it” (in *ivi*, p. 1011). It is interesting to note – to emphasise the theoretical continuity between ancient and modern thought regarding the “contemplation of the infinite greatness of the universe in space and time” – that, in *Auct. de subl.* 35.2-5, Longinus quotes a passage that appears to be closely related to the words mentioned above by Schopenhauer. The author writes: «What then was the vision which inspired those divine writers who disdained exactness of detail and aimed at the greatest prizes in literature? Above

Reflections like those articulated by Schopenhauer, which seek to highlight the intrinsic bond and shared identity between human beings and the entirety of nature, resonate in contemporary discussions led by figures in the fields of environmental and ecological aesthetics⁶¹. These reflections remind us that we, as human beings, are integral components of a vast, dynamic, and profound evolutionary process that has shaped all species, both past and present, on our planet.

In this light, we do not reject the measurable and powerful aspects of biodiversity; instead, we propose that they can become the very threshold through which an *ecological sublime experience* emerges, which the mathematical sublime allows us to glimpse.

It is important to clarify the conceptual distinction we propose between the environmental sublime and the ecological sublime, especially considering the aesthetic experience of biodiversity. While these terms are sometimes used interchangeably in the literature, we believe their differentiation is philosophically and ecologically significant.

The environmental sublime, as often discussed in environmental aesthetics, typically refers to the *emotional and cognitive response to grand natural landscapes*, such as mountain ranges, glaciers, deserts, or oceans. It draws on the legacy of the Kantian and Romantic sublime, where vastness exceeds our grasp yet remains externally perceived. This form of sublime experience tends to focus on the spectacular exteriority of nature: its scale, indifference, or even its threat to human comprehension or control.

In contrast, we propose the concept of the ecological sublime as one that shifts the aesthetic focus from external grandeur to internal complexity, from landscape to system. The ecological sublime is rooted not in the overwhelming *appearance of nature*, but in the invisible, entangled, and dynamic processes that constitute life: symbioses, feedback loops, microbial ecosystems, evolutionary emergence, and the precarious balances of biodiversity. It is not the vastness of a canyon that moves us, but the *cognitive and affective shock* of realizing that the same canyon hosts intricate ecological relationships across scales, from soil fungi to climate regulation.

This form of sublimity engages not only the senses, but the *systems-thinking imagination*. It is triggered less by the sheer visual impact of nature and more by the attempt (and failure) to comprehend the generative, contingent, and interconnected multiplicity of life. As such, the ecological sublime aligns more closely with the experience of biodiversity, which rarely appears in grand visual form but instead emerges through

all else, it was the understanding that nature made man to be no humble or lowly creature, but brought him into life and into the universe as into a great festival, to be both a spectator and an enthusiastic contestant in its competitions. She implanted in our minds from the start an irresistible desire for anything which is great and, in relation to ourselves, supernatural. The universe therefore is not wide enough for the range of human speculation and intellect. Our thoughts often travel beyond the boundaries of our surroundings. If anyone wants to know what we were born for, let him look round at life and contemplate the splendour, grandeur, and beauty in which it everywhere abounds. It is a natural inclination that leads us to admire not the little streams, however pellucid and however useful, but the Nile, the Danube, the Rhine, and above all the Ocean. Nor do we feel so much awe before the little flame we kindle, because it keeps its light clear and pure, as before the fires of heaven, though they are often obscured. We do not think our flame more worthy of admiration than the craters of Etna, whose eruptions bring up rocks and whole hills out of the depths, and sometimes pour forth rivers of the earth-born, spontaneous fire. A single comment fits all these examples: the useful and necessary are readily available to man, it is the unusual that always excites our wonder». (Longinus, *On Sublimity*, 35.2-5, transl. by D.A. Russell, in D.A. Russell, M. Winterbottom, (eds.), *Ancient Literary Criticism. The Principal Texts in New Translations*, OUP, Oxford 1972, p. 494.

⁶¹ For a detailed analysis of the sublime in paragraphs 39, 40 and 41 of Arthur Schopenhauer's *World as Will and Representation*, cf. A. Billon, *Le cosmos des brindilles: un sublime pour notre époque*, in "Klesis", n. 52, 2022, pp. 1-19; S. Shapshay, *Schopenhauer's Transformation of the Kantian Sublime*, in "Kantian Review", vol. 17, 2012/3, pp. 479-511; B. Vandenabeele, *Schopenhauer, Nietzsche, and the Aesthetically Sublime*, in "The Journal of Aesthetic Education", vol. 37, 2003/1, pp. 90-106; Id., *The sublime in Schopenhauer's philosophy*, Palgrave Macmillan, London 2015; S. Vasalou, *Schopenhauer and the aesthetic standpoint: philosophy as a practice of the sublime*, Cambridge University Press, Cambridge 2013.

the recognition of living complexity that exceeds representation. Furthermore, the ecological sublime does not assert the supremacy of reason over nature, but emphasises vulnerability, humility and ethical entanglement with the more-than-human world. For this reason, the ecological sublime evoked by biodiversity *goes beyond the Kantian mathematical and dynamical sublime*: it is a *post-Kantian sublime*, based on responsibility and admiration with confrontation.

This kind of sublime is not only cognitive, but also *affective, embodied* and *ethically charged*. What is revised, then, is not the empirical definition of biodiversity, but the mode through which we relate to it: the sublime makes biodiversity not just something we count or conserve, but something we feel undone by, and ethically responsible for. It does not call for a triumph over nature, but rather a *transformative encounter* with the excess of life that transcends representation and resists appropriation.

This insight should inspire a sense of exaltation and connection, drawing us away from the notion that we hold the power to dominate or oppose this natural process. When we perceive our existence through this lens, the experience of the sublime may serve as a *more powerful motivator* for environmental protection than the traditional concept of beauty. Rather than seeking to preserve a natural form merely because it is aesthetically attractive or “beautiful” – a term that encompasses a diverse array of attributes including, as we have seen, charm, functionality, and fitness – we should aim to protect it because it embodies a *sublime expression of nature*. Consequently, we suggest that other disciplines – particularly those involved in biodiversity conservation and communication – may benefit from incorporating this aesthetic dimension. By complementing rational or ethical arguments with a sublime affective encounter, it may be possible to foster deeper emotional engagement, humility, and a sense of existential connection to life’s multiplicity. In practical terms, this may inform education, environmental messaging, and conservation campaigns by making biodiversity felt not only as a “resource” to manage, but as a force that exceeds us and calls us into responsibility.

This perspective encourages us to recognize that the act of preserving every individual form ultimately safeguards the very processes that have shaped them. It is precisely these same processes that have contributed to our own evolution, interweaving our existence with that of the natural world. In embracing this understanding, we foster a deeper appreciation for our place within the intricate web of life, leading to a more profound commitment to environmental protection.

5. CONCLUSION

This ecological sublime invites us to rethink the aesthetic experience of biodiversity not as a celebration of harmonious beauty, but as an engagement with the irreducible complexity and contingency of life. It is in this sense that the aesthetic of biodiversity may require categories beyond beauty, echoing early intuitions such as those of Kierkegaard, who already in the 1990s called for a shift in how we perceive and value biological diversity, not merely in terms of visual or formal appeal, but as an experience that confronts us with nature’s unpredictable power and radical alterity.

In contrast to beauty, which often celebrates harmony, coherence, and proportion – eliciting admiration and a sense of aesthetic fulfilment – the sublime confronts us with the limits of comprehension. It arises not from order, but from the overwhelming vastness, unpredictability, and complexity of life: from the invisible symbiosis of microbial worlds to the labyrinthine trophic networks of rainforests. These systems resist aesthetic closure. They destabilize perception rather than resolve it, revealing ecological interdependence as something fragile, dynamic, and nonlinear.

In this light, the sublime offers more than an alternative aesthetic category: it becomes *a transformative mode of environmental awareness*. Where beauty may invite care through affection, the sublime demands responsibility through exposure. It evokes an epistemic humility, a visceral sense of being entangled within the very web we seek to understand and protect. By shifting our aesthetic attention from admiration to confrontation, the sublime helps foster not only a deeper aesthetic appreciation of biodiversity, but a more reflective, ethical, and ultimately more committed ecological consciousness. To face biodiversity *sublimely* is not simply to marvel at life's manifold forms, but to listen to the Earth as it trembles in its abundance and its vulnerability, to see ourselves not as masters of its variety, but as participants in its trembling song.

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