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Towards multispecies justice: non-anthropocentric ecocritical methods and practices

Abstract

This article examines contemporary artistic practices that challenge entrenched Western binaries such as nature/culture and human/animal, proposing new frameworks for perceiving and engaging with the more-than-human world in the context of the Anthropocene. Through four case studies—The Embassy of the North Sea, Gustafsson & Haapoja's Museum of Nonhumanity, Ursula Biemann's Forest Mind, and Kyriaki Goni's Data Garden—the article explores how interdisciplinary, research-based art practices reconfigures human-nonhuman relations, critiques extractivist logics and present alternative ways of engaging with ecological crises. Drawing on frameworks from eco-criticism, aesthetic theory, and Indigenous cosmologies, the article introduces the concepts of non-anthropocentric institutionalism and plant-human entanglement as theoretical tools to rethink environmental agency, legal representation, and techno-ecological coexistence. Haraway's notion of natureculture helps articulate entangled ontologies, while Rancière's distribution of the sensible and T.J. Demos's ecocritical aesthetics frame artistic practices as political acts of ontological intervention that challenge what is seen, heard, and valued. These works do not merely represent environmental crises — they intervene in political structures by advocating for the rights of nonhuman entities, envisioning speculative futures, and fostering multi-species justice. Biemann integrates shamanic knowledge and Indigenous epistemologies; Goni speculates on symbiotic data systems between plants and machines. The Embassy of the North Sea pioneers sensory-based advocacy for marine legal personhood, while the Museum of Nonhumanity deconstructs species hierarchies rooted in colonial scientific taxonomies. Through their aesthetic strategies, these practices create spaces for critical reflection and action, particularly concerning ecological justice and the environmental impacts of human activities.

Towards multispecies justice: non-anthropocentric ecocritical methods and practices

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Abstract

This article examines contemporary artistic practices that challenge entrenched Western binaries such as nature/culture and humanity/animality, aiming to create new frameworks for perceiving the more-than-human world. Through four case studies—*The Embassy of the North Sea*, Gustafsson&Haapoja's *The Museum of Nonhumanity*, Ursula Biemann's *Forest Mind*, and Kyriaki Goni's *Data Garden*—the article explores how these works foreground nonhuman agency and present alternative ways of engaging with ecological crises.

Drawing on frameworks from eco-criticism, posthumanism, and ecocritical aesthetics, the article situates these artistic practices within a broader discourse that critiques the limitations of anthropocentric thinking. By engaging with concepts such as 'natureculture' (Haraway, 2003), the article explores how these works challenge dualistic Western epistemologies and propose a more entangled understanding of human and nonhuman relations. Goni's *Data Garden*, for instance, imagines hybrid plant entities that communicate through human language, while Biemann's *Forest Mind* integrates Indigenous epistemologies to foreground alternative ways of knowing and understanding the environment.

Central to this discussion is the role of aesthetics in shaping political consciousness and action. Building on T.J. Demos' (2014) argument that artistic practices participate in a wider realm of aesthetic experience, establishing ecocritical discourse, and Jacques Rancière's (2013) concept of the 'distribution of the sensible,' the essay argues that these works do not merely represent ecological issues but actively intervene in political structures by challenging what is seen, heard, and deemed valuable. Through their aesthetic strategies, the artists create spaces for critical reflection and action, particularly concerning ecological justice and the environmental impacts of human activities.

The Embassy of the North Sea and the *Museum of Nonhumanity*, for example, operate as critical interventions into legal and ethical frameworks, questioning the rights and roles of nonhuman entities. These works encourage audiences to engage with questions of ecological justice, interspecies ethics, and the rights of nonhuman beings, opening up new avenues for political and ethical reflection.

In conclusion, this article highlights how the case studies presented contribute meaningfully to contemporary discussions surrounding the Anthropocene and ecological crises. By weaving together aesthetic and political concerns, these works offer crucial critiques of

anthropocentrism and deepen our understanding of human/nonhuman interdependence. They invite audiences to envision a more equitable and symbiotic future for all entities within the ecological system.

Introduction

The advent of the Anthropocene has marked a new epoch, characterised by climate disruption, unprecedented environmental crises, and an increasing interdependence between society and technology. Anthropogenic climate change draws attention to human-induced global warming, raising profound questions about our understandings of both human and natural history. These developments necessitate a revaluation of the epistemological frameworks and analytical tools used to interpret them. Chakrabarty (2009) emphasizes the complexity of interpreting human history alongside distinct temporalities, noting that climate change science challenges the very foundations of modernity. He suggests that within this process the human perception of time— the linear progression of past, present and future— has been disrupted, as 'the current crisis can precipitate a sense of the present that disconnects the future from the past by putting such a future beyond the grasp of historical sensibility.' (Chakrabarty, 2009:197). Anthropologist Pedro Cesarino (2021) further argues that the overlapping of different times and modes of being, particularly those alternative to the human experience, complicates the imagination of a homogeneous future and the reconciliation of a truly oppressive past.

As the climate crisis deepens and the complexities of the Anthropocene become more apparent, humanity's theoretical and sensory capacity to fully grasp the critical state of Earth's systems and global geophysical processes remain limited. Nevertheless, for humanity to effectively respond to these challenges, it must first perceptually inhabit this new geological and socio-political reality in its uncanny totality. How do we make sense of the Anthropocene's sensibilities, its planetary transformations and their impact on both human and nonhuman entities? How does it feel to be human at present? What scientific, artistic, and theoretical tools and methodologies allow us to fully grasp these profound changes?

Indeed, the Anthropocene calls for a paradigm shift; a redefinition of conceptual and methodological approaches that considers the limitations of established epistemologies and discourses. Aesthetics play a critical role in both concealing and revealing the complexities of the Anthropocene, as they shape how we perceive environmental crises and engage with nonhuman entities. Art historian and cultural theorist T.J. Demos (2014) emphasizes that artistic practices can become political by participating 'in a wider realm of aesthetic experience - of the visual and auditory' thereby establishing an ecocritical discourse that challenges dominant narratives and ideologies. Demos' argument resonates with Jacques Rancière's (2013) notion of 'the distribution of the sensible,' where aesthetics not only define what is seen and heard but also what is considered valuable or worthy of attention in society. By employing aesthetic strategies, artists can disrupt established perceptions and invite viewers to reconsider their relationships with nature, thus fostering a deeper understanding of ecological interdependence and the urgency of political action in the face of the Anthropocene. A growing number of interdisciplinary, research-based art and science projects seek to visually represent the planetary conditions, of the Anthropocene. These projects acknowledging the environmental complexities of the epoch and advocating for the rights of nature.

This paper argues that non-anthropocentric institutionalism and plant-human entanglements offer alternative frameworks for reconfiguring human and more-than-human relationships. These thematic approaches promote a paradigm shift in our environmental understanding, encouraging more holistic and integrative methodologies.[1] They provide a framework for analysing artistic practices that engage with ecological discourses and social justice, facilitating a deeper exploration of their theoretical and aesthetic dimensions. This research demonstrates how these works challenge dominant narratives and inspire transformative engagements with our environment, contributing to a more symbiotic coexistence.

The four case studies discussed here propose new models for understanding the interconnectedness between human and more-than-human entities, challenging anthropocentrism by employing interdisciplinary research methodologies that draw from diverse fields such as biology, marine science, botany, design, technology, and Indigenous cosmologies. In particular scholarly research (Descola, 2005; Escobar, 2018; Viveiros de Castro, 1998, 2014; Whyte, 2017; Fiskio, 2016) has significantly expanded our understanding of Indigenous cosmologies, revealing the intricate interconnections between humans, nature, and the cosmos. This body of work has been instrumental in shaping non-anthropocentric methodologies that move beyond human-centred perspectives.

By integrating Indigenous epistemologies, scholars have highlighted alternative ways of engaging with the environment, providing critical insights into ecological sustainability, interspecies relations, and the interconnectedness of all entities. This article advocates for a departure from Western frameworks which often objectify nature as a resource for appropriation and consumption. Instead, it highlights aesthetic strategies that represent global asymmetries, earth beings, vulnerable ecosystems and nonhuman agency, emerging as political possibilities and alternative cosmologies. These projects converge on shared understandings of a world in transition fostering multi-species kinship, and embracing symbiosis and coexistence as a counterpoint to anthropocentric worldviews.

A. Non-anthropocentric institutionalism

Recent studies on institutionalism grounded on the 'ontological turn' championed by prominent anthropologists and philosophers of nature, have emphasized the necessity of incorporating nonhuman actors in the contemporary formation of institutions. For instance, economic sociologist Benjamin Taupin (2019) draws on French anthropologist Philippe

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[1] Holistic and integrative methodologies refer to approaches that consider the whole system rather than just individual parts, aiming for a comprehensive understanding of complex issues. Together, holistic and integrative methodologies promote a more nuanced understanding of complex issues, enabling researchers and practitioners to develop solutions that consider the interconnected nature of human and nonhuman systems. For further reading on these concepts: Bateson, G. (2000). *Steps to an Ecology of Mind*. University of Chicago Press, Chicago, 533 pp.; Capra, F. (1996). *The Web of Life: A New Scientific Understanding of Living Systems*. Anchor Books, New York, 368 pp.; Escobar, A. (2018). *Designs for the Pluriverse: Radical Interdependence, Autonomy, and the Making of Worlds*. Duke University Press, Durham, 312 pp.

Descola's methodological approach that resists the nature/culture dichotomy. He discusses the agency of the ocean as a nonhuman entity and its connections to other forms of agency, suggesting that this perspective allows for a deeper exploration beyond merely viewing institutions as products of human material conditions. This theme emphasizes the need to rethink institutional frameworks to equally prioritize ecological and nonhuman interests alongside human ones. It challenges conventional governance models by advocating for laws and policies that recognise the rights of nature and the intrinsic interconnectedness of all Earth beings. This perspective aligns with Descola (2005) and Escobar (2018), who explore how societal structures can be reshaped to incorporate diverse ecological viewpoints and foster more inclusive environmental stewardship.

In this context, the materiality and agency of nonhuman entities gain prominence in French sociologist and anthropologist, Bruno Latour's (1991) work on the *Parliament of Things* where he advocates for a shift towards a Life-centred Law that treats all entities—human and nonhuman—as equal parties. Latour's proposition critiques modernity's entrenched classifications such as the nature/culture and subject/object divides, arguing that these frameworks are not only inadequate for addressing current ecological predicaments but also misaligned with contemporary lived realities.

The paradox of modernity alongside emerging forms of institutionalism that recognize the agency and rights of nonhumans is explored in the following case studies, which illustrate the practical implications of these theoretical frameworks in reshaping our understanding of institutional dynamics.[2]

The Embassy of the North Sea (2018-ongoing)

The Embassy of the North Sea, established as a non-governmental organization (NGO) in The Hague in June 2018, embodies the principle of the sea's self-determination. This unique initiative seeks to provide political representation for all marine life, as well as for human and nonhuman entities connected to the North Sea. Through multidisciplinary investigations the Embassy creates a platform that amplifies the voices of plants, animals, microbes, and people within the marine environment of the North Sea. While operating under principles similar to those of an NGO, the Embassy also explores the North Sea's potential status as an independent legal entity, advocating for its self-determination and inclusion in political frameworks. Its activities emphasize the necessity of representing non-human entities in democratic processes and challenge traditional legal systems by examining the rights of nature.[3] This aligns with broader movements that have granted personhood to natural entities,

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[2] 'Institutional dynamics' refers to the processes, interactions, and power relationships that characterize how institutions operate and adapt over time. This concept encompasses the ways in which institutions—such as legal systems, organizations, and governance frameworks—evolve in response to internal and external pressures, including shifts in societal values, environmental challenges, and emerging theories about nonhuman agency.

[3] For more information on the rights of nature and its legal implications, see Kauffman, C. M., & Martin, A. (2021). *The Politics of Rights of Nature. Strategies for Building a More Sustainable Future*, The MIT Press,

such as the Whanganui River in New Zealand[4] and the Mar Menor lagoon in Spain.[5] In this way, the Embassy functions not only as an advocacy and educational organization but also as a pioneer in legal discussions concerning the rights of the North Sea.

The long-term project methodology is one of the cases of the *Parliament of Things*;[6] a conceptual framework introduced by Bruno Latour, which envisions a democratic assembly of both human and nonhuman entities. This approach advocates for the inclusion of diverse actors—such as animals, plants, objects, and ecosystems—into decision-making processes, thereby challenging traditional anthropocentric perspectives. It emphasizes the need to recognize the agency of nonhuman actors in shaping social, political, and environmental outcomes, fostering a more inclusive understanding of democracy and responsibility in the Anthropocene. and *The Embassy of the North Sea* involves three phases promoting strategies for a sensory understanding of the North Sea that will conclude to a re-negotiation of the sea-human relations. Phase 1: Listening (2018–2022) relies on listening and paying attention to sound associated to the sea and aquatic life with the aim to develop sensorial connections to the sea. Artistic practices are becoming political, as T.J. Demos (2014) intends through participation 'in a wider realm of aesthetic experience - of the visual and auditory' in the process of establishing an ecocritical discourse. Phase 1 has now concluded and will be discussed in more detail later in the text. Phase 2: Speaking (2023–2026) employs methods developed in Phase 1 to advocate for a political representation of the North Sea in the society. The approach seems to propose sensory perceptions as modes of political activism. For Phase

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Cambridge MA, 290 pp. focus on how the legal recognition of Rights of Nature is reshaping environmental governance by empowering communities, governments, and activists to protect ecosystems as entities with inherent rights; Cano Pecharroman, L. (2018) Rights of Nature: Rivers That Can Stand in Court. *Resources*. 7(1):13. https://doi.org/10.3390/resources7010013 which explores the constitutional recognition of nature's rights in New Zealand, Ecuador, Bolivia India, and Colombia. Additional discussions can be found in Challe, T. (2021) The Rights of Nature — Can an Ecosystem Bear Legal Rights?. Columbia Climate School. Available at: https://news.climate.columbia.edu/2021/04/22/rights-of-nature-lawsuits/ (Accessed: 10/10/2024). addressing recent legal cases and advocacy efforts. A broader overview of the global movement for nature's rights is presented in Crews, C. (2023). Environmental Justice and the Global Rights of Nature Movement. *In*: Jay Kassiola, J., Luke, T.W. (eds) *The Palgrave Handbook of Environmental Politics and Theory*. Palgrave Macmillan, Cham. https://doi.org/10.1007/978-3-031-14346-5_20 and in The Global Alliance for the Rights of Nature. (2022) Rights of Nature: Redefining Global Climate Solutions and Environmental Protection for Systemic Change. White Paper. Available at: https://www.garn.org/wp-content/uploads/2022/11/RON-COP-27-White-Paper-final.pdf. (Accessed: 10/10/2024).

[4] The Whanganui River, recognized as a legal person under the Te Awa Tupua Act 2017, holds the status of a living entity in New Zealand law, granting it rights and the ability to stand in court. This landmark legal decision reflects the Māori worldview, emphasizing the river's intrinsic connection to the Whanganui iwi (tribe) and recognizing the importance of the river to their culture and identity. See: Evans, K. (2020) The New Zealand river that became a legal person. bbc.com. Available at: https://www.bbc.com/travel/article/20200319-the-new-zealand-river-that-became-a-legal-person (Accessed: 10/10/2024).

[5] The Mar Menor, a coastal lagoon in Spain, was granted legal personhood in 2021 through a landmark ruling by the Spanish government, recognizing its rights and the need for legal protection against environmental degradation. This decision reflects a growing global movement to recognize nature as a legal entity, emphasizing the lagoon's ecological significance and the impact of human activity on its health and biodiversity. See: Jones, S. (2022) Endangered Mar Menor lagoon in Spain granted legal status as a person. The Gaurdian.com. Available at: https://www.theguardian.com/world/2022/sep/21/endangered-mar-menor-lagoon-in-spain-granted-legal-status-as-a-person (Accessed: 10/10/2024).

[6] https://theparliamentofthings.org/about/

3: Negotiating (2027–2030) the Embassy will attempt to influence current legal frameworks and regulations informed by and knowledge acquired in Phase 1 and 2.

In response to the Anthropocene demands for new forms of political representation, *The Embassy of the North Sea* - Phase 1: Listening (2018–2022) brings together artists, scientists, authors, marine biologists and policy makers to create possibilities for listening to the sea through interdisciplinary projects namely *A Voice for the Eel*, *Underwater Noise* and *Future of the Delta*.

Image 1

A voice for the Eel

Eels are considered as critically endangered species in the Netherlands, with their population numbers being decreased the last forty years. Several reasons have contributed to this, including human-centred activities such as overfishing eel smuggling, as well as climate change and inland migration obstacles. As a response the research team of *A Voice for the Eel*—an artist, a landscape architect, an aquatic ecologist and an environmental sociologist joined their forces to explore cohabitation strategies between the eel and its surroundings. Focusing in the wider area of Amsterdam the team's aim was to develop a better understanding of the eel's biological and environmental conditions through investigating underwater marine life and the impact of human decision making and infrastructure. What followed was several artistic and scientific interventions involving the commissioning of designs, installations, videos and policy proposals raising the prospect of 'a multi-species city'.[7] More particularly, the process involved the design of the Eel Park Amsterdam; an underwater park near the city centre that improves biodiversity and biomass whilst reducing noise production. A series of short films based on ethnographic research where the question of learning from the eels was at the core of the investigation. And finally, an interactive spatial installation presented as part of the 'Welcome to the Parliament of Things' event (20 November – 6 December 2020) that provided a speculative proposition of the eels' living experiences from a human perspective.

Underwater noise in the North Sea
The Underwater noise in the North Sea research project is challenging the long-established human-centred belief that the underwater world is silent. We now know that not only is not silent but marine life communication and navigation systems are based on sound; systems that are highly disturbed by human activities such as sea transport and constructions. The project draws from current research on underwater noise pollution to produce a visual representation of noise below the level of the sea that occurred naturally or caused by human

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[7] https://www.embassyofthenorthsea.com/projecten/stem-voor-de-paling/

activity. Act in the best interest of marine animals, the researchers argue that this process will enable a better understanding of ways that marine creatures use sound as well as acting decidedly towards reducing human-induced noise.

Image 2

Image 3

Future of the Delta

The Future of the Delta team examines the environmental, morphological and aesthetic effects of the Delta Works, one of the Seven Wonders of the Modern World. The mega-plan involved the construction of several infrastructure projects around the Rhine–Meuse–Scheldt, river delta in the Netherlands spanning across forty years (1954-97). Dams, sluices, locks, embankments, levees, and storm surge barriers were built with the aim to protect the land in the wider area and prevent flooding. Through challenging the ideological foundations of such modernist infrastructures, The Future of the Delta examines their inadvertent contribution to the misuse of nature and aquatic ecosystems whilst arguing for ecologically centred approaches. One that considers the sea's self-determination, fluidity, waters' freedom of movement and other nonhuman elements. It goes as far as to propose 'to once again allow the sea to flow freely into Zeeland, and in that approach see more opportunities than threats for both the people of Zeeland and nature,'[8] in a way that meaningful understandings of natural processes and interactions between human and nonhuman are initiated.

The Embassy of the North Sea exemplifies a significant shift towards non-anthropocentric institutionalism, advocating for the rights and representation of marine life within political frameworks. Grounded in the ontological turn, this initiative seeks to rethink institutional structures by recognizing the agency of nonhuman entities, challenging traditional governance models that have historically marginalized ecological interests. By adopting an interdisciplinary approach, the Embassy aims to re-imagine the ontological principles of the North Sea through the act of listening. Coastal seas are often viewed merely as extensions of human territory and resources to be exploited, which positions marine life as external to human societies and leads to detrimental ecological consequences. In contrast, the Embassy promotes a philosophical framework that emphasizes symbiosis, interdependence, and nonhuman agency, advocating for transformative change towards a more sustainable environment.

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[8] https://www.embassyofthenorthsea.com/projecten/future-of-the-delta/

The Embassy's multi-phase strategy—Listening, Speaking, and Negotiating—facilitates deeper engagement with the North Sea's ecological dynamics, fostering a nuanced understanding of the interconnections between human and nonhuman actors. Through projects such as A Voice for the Eel and Underwater Noise in the North Sea, the initiative highlights how artistic and scientific collaborations can cultivate meaningful discourse about marine ecosystems and address the challenges posed by anthropocentric activities. This case study illustrates how non-anthropocentric institutionalism can reshape our understanding of environmental stewardship by fostering a democratic assembly of both human and nonhuman voices.

Museum of Nonhumanity by Gustafsson&Haapoja[9] (2016-ongoing)

Darwin's theory of evolution by natural selection has contributed significantly to our modern understanding of the human/nonhuman separation. Based on observation during the HMS Beagle expedition, Darwin's book *The Origin Of Species* (1859) describes how species change over the course of generations through natural selection. Whilst at the time it revolutionized the course of science, it also drew hard lines between humans and the nonhuman 'other'. A loose interpretation of Darwin's thesis was later used by Herbert Spencer to form the basis of social Darwinism. Recent work on the origins of racism reveals ways that social Darwinism and eugenics were utilised to establish scientific racism which was conceived to reinforce Euro-American imperialism and legitimise tactics of subordination and oppression (Pressman 2017).

The concept of race and racial domination was socially constructed and scientifically backed up to then act as the basis of imperialist institutional practices and policies that maintain until today beliefs of racial inferiority. To address this, we thus require strategies and process of unlearning that involve working back to moments of history these foundational separations were born. *The Museum of Nonhumanity* sets in motion such a process by constructing a utopian museum; the idea on the one hand deconstructs the very notion of the imperial institution that perpetuates power and control and on the other presents the 'mechanics of animalisation' through carefully selected visual material.

Image 4

The Museum of Nonhumanity is a collaborative project developed by Gustafsson&Haapoja (writer Laura Gustafsson and visual artist Terike Haapoja) that challenges scientific racism, human taxonomy and the differentiation between humans and other species, all of which have historically justified acts of slavery, oppression and genocide. Gustafsson&Haapoja argue

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[9] Terike Haapoja (Finland) and Laura Gustafsson (Finland) are an artist duo known for their collaborative works that explore the relationships between humans, nonhumans, and the environment through multidisciplinary approaches. Their projects engage with issues of anthropocentrism, ecology, animal rights, and the rights of nonhuman entities. One of their most notable projects is the *Museum of Nonhumanity* (2016-ongoing), which explores the history of the distinction between human and nonhuman animals, critiquing how this divide underpins systems of oppression. Through this work, they invite reflection on the ethics of human domination over nature.

that such differentiation between humans and other species not only has had detrimental and extensive consequences for humanity—including European supremacy and colonialism—but also underpinned extractive practices and long-established exploitation of animals and natural resources. Instrumentalization of the nonhuman and the belief that nature is external to society has led to today's environmental crisis. They also trace the roots of discriminatory acts and forms of intolerance related to xenophobia, sexism, racism, homo- and transphobia in the same distinction between 'us' and 'them'.

The research project comprises *The Archive of Nonhumanity* and a series of public programme activities that attempt to deconstruct 'othering', dehumanisation and the rhetoric of animalisation with a view to create more inclusive approaches. Hapooja (2019:15) argues that 'dehumanisation generally occurs fist on the level of language and conceptualisation and then in action'; following from that *The Archive of Nonhumanity* is organised around twelve themes namely Person, Potential, Monster, Resource, Boundary, Purity, Disgust, Anima, Tender, Distance, Animal and Display all of which scrutinise the very foundations and processes of forming the concept of dehumanisation.

Through an immersive, large-scale, 70-minute, 10 channel video installation the work questions traditional divides between human and nonhuman and the process of boundary-making in itself. It encompasses archives, visual culture materials (images and sound), selected excerpts from historical texts, encyclopaedia entries, and object loans from museum collections. Across its various iterations, alongside the main installation the project also included an open access publication, a public programme of film screenings and talks involving academics, artists, activists, civil-rights and animal-rights organizations, and an educational programme with guided tours, and workshops for student groups accompanied by educational resources and a task booklet.

Museum and the politics of visuality

In a process of unlearning, the project proposes ideas of alter-institutionality and new forms of visuality.[10] It does so through re-imagining the very model of the museum which becomes central on a conceptual level but also within exhibition design strategies. The project constructs a temporary institution calling attention to the origins of the modern museum - a rather contentious institutional formation inextricably linked to imperialism and as Haapoja (2019:15) argues being 'an intrinsic part of the mechanics of dehumanisation.' Operating as a tool of colonialism and nation building that perpetuated and reinforced forms of hegemonic power the modern museum aimed to make sense of the world, albeit from a Eurocentric perspective. Core collections consist of ethnographic and archaeological objects and natural history specimens extracted during expeditions, from places across the world. Promoting control and domination over forms of cultural representation the collections' exhibition

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[10] Norman Bryson (1988) defines visuality as the sum of discourses existing between the subject and the world; this is contrary to vision, which according to Bryson is the notion of unmediated visual experience.

displays were accompanied by mono-dimensional, didactic interpretations dedicated to narratives of expansion and progress.

Image 5

Gustafsson&Haapoja propose a re-appropriation of existing models to retell the history of nonhumanity. Their approach involves a critical examination of complex global histories that challenge traditional museum narratives and confront colonial regimes of visibility, seeking to reshape how we understand nonhuman entities within the context of historical injustices and cultural representation. The historical moment of the human-animal divide becomes the starting point, in a wider effort to challenge dominant Western-centred visuality and the politics of display through research-based artistic methodologies. A good example is the use of curated encyclopaedia entries that extract terminology tightly bound to capitalist, imperialist and colonialist operations in ways of providing critical interpretations of these processes. In direct contrast with the idea of the 'encyclopaedic' museum, the aim of which is to provide a shared sense of human history (Cuno, 2013) by offering representative specimens of each classification across fields of knowledge, through a utopian institution the *Museum of Nonhumanity* calls us to imagine a future that goes beyond the anthropocentric, dualistic world order.

B. Plant-human entanglements

It has been suggested that the Anthropocene, a period marked by humanity's vast dominance over planetary systems, necessitates a rethinking of the human-nature relationship. Artists such as Ursula Biemann and Kyriaki Goni explore these dynamics through plant-human entanglements, using research-based artistic methodologies and visual materials. Their works emphasize the complex interdependencies between humans and plants, highlighting the importance of shifting away from viewing plants solely as resources. Instead, they propose a more reciprocal understanding of these relationships in a multispecies environment, one that reconciles the human-nature divide and challenges the notion of 'otherness'.

This theme aligns with discussions in ecology and Indigenous epistemologies, as explored by scholars Viveiros de Castro (1998, 2014) and Whyte (2017). These perspectives emphasize the relational nature of existence and the recognition of nonhuman agency, calling for a more holistic understanding of multispecies environments. Through their work, Biemann and Goni underscore the need for a reassessment of human agency, offering an artistic lens through which to consider the co-dependencies and interactions that shape ecological systems, particularly in a time of environmental crisis

Forest Mind **by Ursula Biemann**[11] **(2011)**

The Amazonian rainforest is a place of considerable rich biocultural diversity where histories of colonial domination and natural science intersect. Almost one million Indigenous people divided into about four hundred tribes live in the Amazon, with their own language, culture, and their physical and spiritual environments. Recent theoretical efforts responding to environmental crisis' challenges have proposed a shift towards non-Western knowledge systems, arguing that it becomes increasingly important to shed light to Indigenous epistemologies and pedagogies and their contributions to the human-nature relationship. Cesarino (2021) explains that:

> the impossibility to recover a glorious (and dangerously totalitarian) past, and the uncertainty of a homogeneous future actually led to an overlapping of times and modes of being that are alternative to the human.

This process offers the opportunity to further develop radically new understandings of kinship and intra-dependency that can broaden our horizons for nature-human co-existence. Such a process of establishing links to Indigenous cosmologies, however, is rather complex. Eduardo Kohn (2013), in *How Forests Think*, advances the idea that forests and other non-human beings possess forms of agency and thought, which complicates the human-nature dichotomy central to Western epistemologies. Kohn's exploration of how beings such as plants and animals think through semiotic processes resonates with Indigenous perspectives of relationality, where humans and non-humans are deeply intertwined within shared ecologies of meaning. This non-anthropocentric perspective urges us to rethink how we understand the living world and suggests that communication and knowledge are not exclusively human domains but are shared across species and environments. Similarly, Eduardo Viveiros de Castro's (2014) call for an 'ontological turn' and 'ontological autonomy' in anthropology offers a way to engage with these alternative epistemologies by recognizing the autonomy of Indigenous ontologies. Both Kohn and Viveiros de Castro advocate for a profound decolonization of thought, pushing anthropology to dismantle Western binaries between human and non-human, nature and culture, and inviting us to explore new, relational frameworks that better account for Indigenous cosmologies and their contributions to a more interconnected understanding of the human-nature relationship.

Image 6

Ursula Biemann's *Forest Mind* is such an attempt; it takes as a starting point the arrival of the first botanists-explorers in the Amazon that established the foundations of modern natural

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[11] Ursula Biemann is a Swiss video artist, theorist, and curator known for her work that explores global environmental issues, migration, and indigenous knowledge systems. Her multimedia projects often blend scientific research, documentary practice, and artistic expression to investigate ecological concerns and the impact of human activities on the planet. One of her most renowned projects, *Forest Law* (2014), examines the relationship between nature and legal rights in the Amazon. Biemann's work reflects a deep commitment to addressing socio-environmental justice and exploring alternative ways of understanding human-nonhuman relations.

science and set the principles of the human-nature relationship. In the early modern world botany was a critical instrument for Europe's imperial and trade ambitions, establishing taxonomies schemes and 'pure' classification systems by means of colonial conquests. In this process of extracting species from their natural environment and developing decontextualised categorisation, Indigenous understandings of human-plant interrelations and ideas of symbiosis were omitted. Biemann (2022:32) argues that Western science's mechanistic interpretation of nature leaves little room for consideration of Indigenous ontologies and their plants, animals, and beings from the spiritual world. Moreover, 'scientific colonialism continuously overrides the Indigenous respect for plants as to pursue a more utilitarian exploitation of bioprospecting and DNA sequencing the entire Amazonian rainforest.' As a response she develops an art and science methodological approach that considers the limitations of Western science in understanding Indigenous epistemologies and proposes a form of inter-epistemic exchange; one that brings together traditional knowledge and western philosophy, science and shamanism.

Image 7

The film is set in the Amazonian rainforest of Colombia, where in 2018 Ursula Biemann undertook long-term field research and engaged in processes of co-creation with Indigenous communities, including an Indigenous University co-developed with the Inga people. This initiative brings together both ancestral Indigenous knowledge and contemporary (Western) perspectives. The protagonist shares their experience taking yagé (Ayahuasca), a psychoactive brew, central to shamanic spiritual medicine among Indigenous people. Yagé is a potion typically combining components from two plants: the *Banisteriopsis caapi* vine, which contains β-Carbolines alkaloids (such as harmine and harmaline), and the *Psychotria viridis* shrub, commonly known as 'chacruna,' which contains a potent hallucinogen N,N-dimethyltryptamine (N,N-DMT or DMT). This combination allows for the effects of DMT to be experienced orally by inhibiting the enzyme monoamine oxidase (MAO) in the stomach, preventing the breakdown of DMT and enabling vivid hallucinations and altered states of consciousness (Ruffell et al., 2020).[12] Upon ingestion, the protagonist describes hearing a voice instructing them to become one with the Earth, as though it were the voice of the Earth itself and they were the only human being on it. They go on to describe their encounter with a pristine, unpolluted forest where trees 'move, talk, and are alive.' This deeply personal account of communicating with Mother Earth and the cosmos becomes a powerful representation of Amazonian cosmologies, embodying a spiritual and ecological worldview

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[12] For more information on the psychological and physiological effects, as well as the pharmacology of ayahuasca, see the following articles: Domínguez-Clavé, E., Soler, J., Elices, M., Pascual, J. C., Álvarez, E., de la Fuente Revenga, M., Friedlander, P., Feilding, A., & Riba, J. (2016). Ayahuasca: Pharmacology, neuroscience and therapeutic potential. *Brain research bulletin*, 126 (Pt 1), 89–101. https://doi.org/10.1016/j.brainresbull.2016.03.002

Ruffell, S. G. D., Crosland-Wood, M., Palmer, R., Netzband, N., Tsang, W., Weiss, B., Gandy, S., Cowley-Court, T., Halman, A., McHerron, D., Jong, A., Kennedy, T., White, E., Perkins, D., Terhune, D. B., & Sarris, J. (2023). Ayahuasca: A review of historical, pharmacological, and therapeutic aspects. *PCN reports: psychiatry and clinical neurosciences*, 2(4), e146. https://doi.org/10.1002/pcn5.146

where the boundaries between humans, plants, and the Earth itself are fluid and interconnected.

The physiological effects of yagé, such as altered states of consciousness, vivid hallucinations, and the sensation of communion with nature, are deeply intertwined with its use in Indigenous healing practices and spiritual journeys, which aim to bridge human and non-human worlds through the shamanic encounter with plant spirits. The bodily process of ingesting the plant enables mental and physical healing, communication with the spirit world and production of Indigenous knowledge. A form of metaphysical, telepathic communication is achieved through bringing together the 'vegetal mind' and the 'human brain' into a lifelong spiritual learning process. The science of yagé is infinite and the plant a constant teacher that allows the understanding of material and spiritual interconnections through setting in motion neurological processes in the human brain. Afterall as the narrator informs us it is common understanding within the Indigenous people of the Amazon that 'knowledge emerges from the encounter with the land and its living beings'.

Image 8

In an alternation between human narrative and forest imagery by means of utilising ethnographic mechanisms of fieldwork Biemann presents an eco-cosmological worldview (Guzy, 2021:282) that rejects the idea of 'a pure outside' (Foster, 1995:304). A small circle in the right-hand side of the screen operates as a symbolic microscope providing a closer look to the microcosm of the forest. The proposal seems to oppose attempts to rushed interpretations of the 'other' and instead it develops 'a discursive network of other practices and institutions, other subjectivities and communities' (ibid). Furthermore, the process-based artistic methodology of co-creating and long-term interaction with the communities opens up opportunities of non-extractive collaborations that override potential questions around issues of exoticisation. Likewise, the dynamic land-based relationships among plants, people, spirits, and science suggest a breeding ground of imaginative connections.

Data Garden by Kyriaki Goni[13] (2020 & 2022)

Technology has given rise to a new 'other'—artificial intelligence, robotics and digital tools— which carry significant environmental implications, including greenhouse gas emissions, energy and water consumption, resource depletion, and the generation of substantial e-waste. Additionally, the proliferation of data centres, which house networks of computer servers, supporting digital ecosystems and cloud-based platforms, further exacerbates environmental challenges due to their high resource demands. As the number of

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[13] Kyriaki Goni is a Greek artist and researcher whose work explores the intersections of technology, ecology, and society. She creates multimedia installations that often blend data, storytelling, and speculative fiction to address critical issues such as digital surveillance, climate change, and the Anthropocene. Her practice encourages viewers to consider the ecological impact of digital technologies and to imagine more sustainable, symbiotic futures. Goni has exhibited internationally, engaging with both scientific and artistic communities.

technological mega-infrastructures continues to grow globally, so does the impact of our digital activities on the natural environment. The current climate crisis underscores the increasing pressure on data centres to support our techno-dependent lifestyles, emphasizing the urgent need to explore alternative, more sustainable approaches.

Image 9

Kyriaki Goni introduces the concept of *Data Garden* as an imaginative space for interspecies symbiosis between humans and nonhumans. Data Gardens consist of endemic plants, that grow exclusively in their native geographical areas. Goni explores this concept through two installations, with the first, *A Way of Resisting (Athens Data Garden)*, created in 2020. The installation focuses on *the Micromeria acropolitana*, a small perennial plant with elegant pink flowers that thrives only on the rocky terrain of the Acropolis in Athens. Originally classified in 1906, this plant was presumed extinct until its rediscovery in 2006 by two Greek botanists. The Acropolis archaeological site attracts over sixteen thousand visitors daily, posing a significant threat to the plant's survival. In response, a clandestine community has formed to protect the plant from extinction while advocating for data privacy, information self-determination and environmentally conscious data management. They employ cutting-edge scientific techniques to encode information into the plant's DNA[14] subverting hegemonic surveillance methods and extractivist practices. This fictional narrative unfolds through the artist's voice, who is also the protagonist in a central film element of the installation. Goni's work encourages us to envision a network of plant-machines functioning as data storage devices. It features interviews with scientist and academics, alongside drawings, prints, a polyphonic sound installation, and an Augmented Reality application, all advocating for a synergetic, non-linear sharing and forming of mutual ecologies.

Image 10

The second installation, titled *The Mountain Islands Shall Mourn Us Eternally* (Dolomites Data Garden) was commissioned by the Biennale Gherdëina in 2022. Centred in the Dolomites Mountains the work revolves around an imaginary hybrid plant, combining *Ortiseia leonardii*, a conifer fossil dating back 260 million years, with *Saxifraga depressa*, a rare white flower that thrives only at elevations between 2000 and 2850 meters. Goni addresses the human-induced exploitation of the natural landscape, highlighting how tourism activities and infrastructures pose significant threats to the Dolomites, which are among Europe's most biodiverse ecosystems. She begins the video with a transmission from the hybrid plant, which speaks on behalf of its entire species, drawing attention to the migration of local plant species to higher altitudes in search of cooler microclimates due to intensive regional exploitation, landscape deterioration, and climate change. Throughout the CGI video, a planetary chronicle unfolds, depicting deep time, geological transformations, and

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[14] In 2013 Karin Ljubič Fister and Iztok Fister Jr. collaborated with biotechnologists at the University of Ljubljana to develop a pilot project which encoded a short computer code into the DNA of *Nicotiana Benthamiana plant*. The DNA re-sequenced, converted back to binary, and executed as a Python script — printing Hello World on a screen. You can read more about the process here: K. Ljubic, I. Fister. Storing data into a living plant. Technical Report, Maribor: FERI, 2013. 7 pages.

plant history, culminating in a foreboding message about forced migration. The journey concludes at the mountain summit, the final destination before extinction. Similar, to the *Athens Data Garden* the video explores interspecies relationships that create and sustain complex social and tecno-ecological spaces. However, Goni shifts towards a non-anthropocentric perspective, emphasising plant-human entanglements. Here, the protagonist is a CGI hybrid plant voiced by synthetic AI, which utilises human signals and language for communication. Additionally, the video portrays the evolution of encoding data into the plant's DNA, suggesting that the hybrid plant serves as a vessel for this transformative process.

To grasp the concept of plant-human entanglement, it is essential to reference the notion of 'natureculture' (Haraway 2003, Fuentes 2010) which merges nature and culture that while rejecting dualisms such as human/animal, human/machine, nature/culture. This idea permeates Goni's work which visually interprets the intricate socio-eco-technological relationships that shape our world. In *Data Garden* the boundaries between fiction and scientific fact are intentionally blurred in service of proposing sustainable futures. The work invites viewers to critically assess the climate impact of digital technology, particularly emphasising the growing demand for data storage and the subsequent expansion of data centre infrastructures.

Conclusion

In this exploration, I have examined contemporary artistic practices that propose alternative models for engaging with the vibrant interconnectedness of the human and more-than-human worlds. *The Embassy of the North Sea, Museum of Nonhumanity, Forest Mind, and Data Garden*, share a common purpose: to challenge the externalization of nature and foreground the visibility of more-than-human agency. Each of these works interrogates the entrenched dualisms of Western thought, particularly the nature/culture and humanity/animality divide, offering instead a more integrated understanding of co-existence and symbiosis that recognizes the intricate relationships between human and nonhuman entities.

The strength of these practices lies in their ability to intertwine aesthetic production with critical dialogues around economic and political structures creating spaces that encourage diverse audiences/participants to reflect on the societal implications of their work.
The Embassy of the North Sea, for instance, serves as a model for reimagining legal frameworks that recognise the rights of natural entities, thereby challenging established political paradigms. Similarly, Gustafsson&Haapoja's *Museum of Nonhumanity* prompts viewers to reconsider the roles and rights of nonhuman beings, fostering dialogue that transcends conventional anthropocentric perspectives. Biemann's integration of Indigenous epistemologies within her artistic methodology promotes a deeper understanding of ecological systems and the urgent need for inter-epistemic exchanges that respect diverse knowledge systems. Goni's *Data Garden* installations examine the environmental impacts of

technology, drawing attention to the ecological costs of our digital lives while proposing imaginative, symbiotic futures between human and plants.

A key aspect of these works is their adaptability across varied exhibition formats and contexts,[15] enabling them to engage with different audiences, participants and stakeholders. Both *The Embassy of the North Sea* and *Museum of Nonhumanity*, illustrate a complex interplay between institutional frameworks and less formal, grassroots settings, addressing a spectrum of human and nonhuman perspectives. These projects can be interpreted through multiple lenses—from the legal and ethical frameworks of Western and non-Western cultures to the environmental concerns of both urbanized and rural contexts. Such adaptability highlights the capacity to transcend typical boundaries of audience engagement, transforming viewers from passive observers into active participants in a wider discourse on ecological justice and human/nonhuman coexistence. The interaction between these works, their contexts, and audiences creates a dynamic site for political reflection and creative thought, prompting a reconsideration of humanity's entanglements with the nonhuman world and fostering new ethical paradigms in the Anthropocene.

In conclusion, the case studies examined here critique the Western view of nature-culture dualism, proposing instead a more nuanced understanding of the intricate entanglements between humans, plants, and broader socioecological landscapes. They serve as both aesthetic interventions and catalysts for broader societal conversations about ethics, rights, and responsibilities in the Anthropocene. In considering the future trajectory of our planet, it is essential to continue examining these interrelations and their capacity to reshape our understanding of human-nonhuman coexistence. By engaging with the complexities of these interactions and acknowledging the agency of nonhuman actors, we can foster a more integrated and equitable framework for cohabitation, advancing a deeper, more nuanced comprehension of our shared ecological systems.

Captions
Image 1. Anguila Anguila (Eel), 2022, © Darko Lagunas, Video Still
Image 2. Audement at sea, 2022, © Tim Vermeulen and *Embassy of the North Sea*, Photo © Paul Vermeulen
Image 3. Audement, 2021 © Studio Ossidiana and Embassy of the North Sea, Photo © Chiara Catalini
Image 4. Gustafsson&Haapoja, *Museum of Nonhumanity*, 2017, Installation view detail, press3, Photo © Terike Haapoja

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[15] I am refereeing to the political potential inherent in curatorial practice and exhibition making, and how artistic voices are amplified through their presentation in diverse settings, formats, and institutional frameworks.

Image 5. Gustafsson&Haapoja, *Museum of Nonhumanity*, 2017, Installation view, detail press4, Photo © Terike Haapoja

Image 6. Ursula Biemann, *Forest Mind*, 2021, video still. Performance by Rubiella Mojomboy

Image 7. Field trip through the Andean Amazon © Ursula Biemann

Image 8. Ursula Biemann, Photograph from the film trip, conducting interviews with Inga community members, January 2021

Image 9. A hidden dense network of roots, *A way of resisting* (Athens Data Garden) 2020, © Kyriaki Goni

Image 10. *The mountain islands shall mourn us eternally* (Dolomites Data Garden), 2022, video still, ©Kyriaki Goni

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