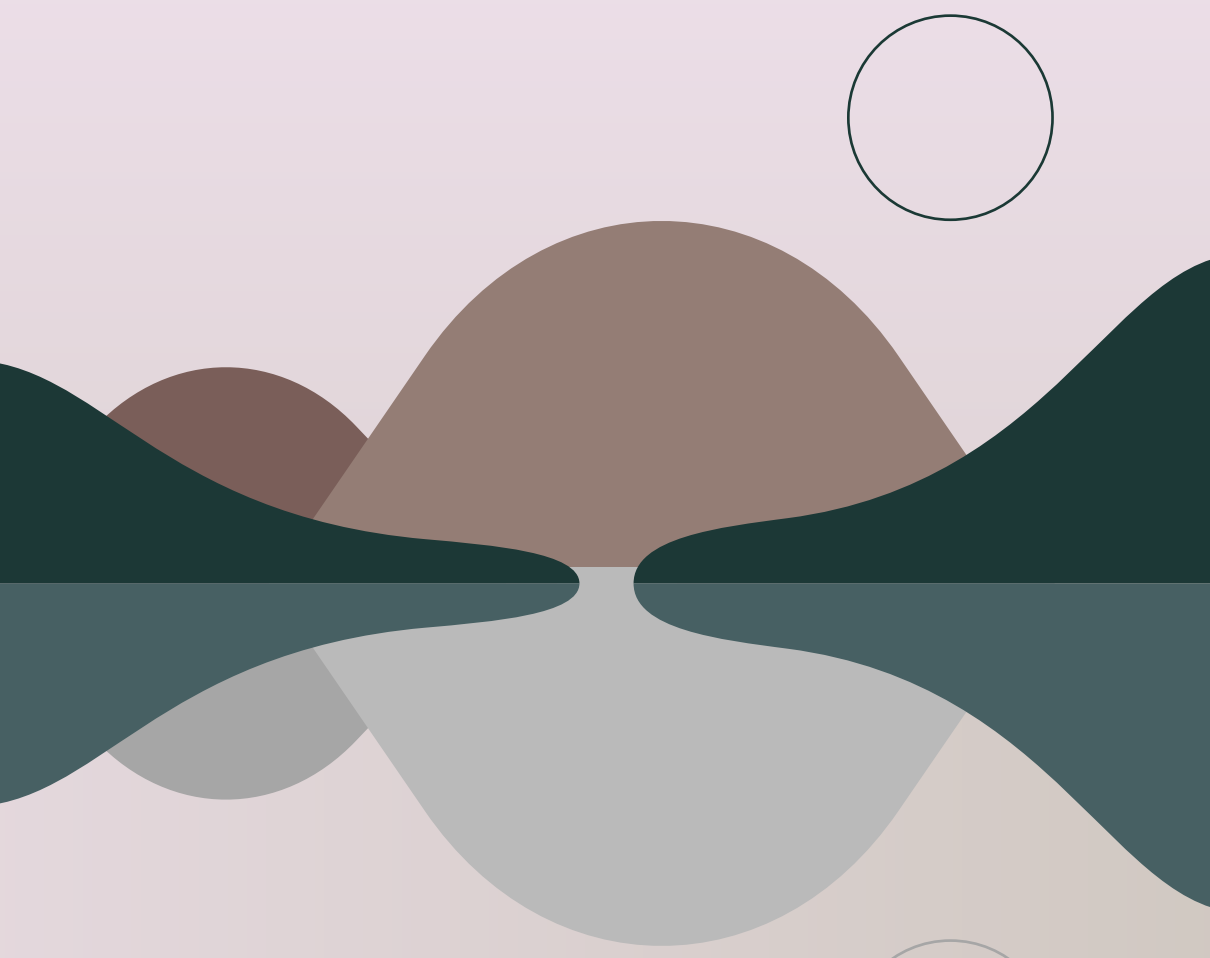


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Serenella Iovino

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Epic, Ecocriticism, and Aesthetic Anthropology: New Approaches to the Environmental Challenges

edited by Stefano Beggiora and Lidia Guzy

Editorial: Three Years with Lagoonscapes and Environmental Humanities

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Università Ca' Foscari Venezia, Italia

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2024 is a year that since its inception has been characterized by a series of wide-ranging international events in favour of the environment, biodiversity and global sustainability. The United Nations Environment Program (UNEP) launched, again this year, a work program to support multilateralism, dialogue and actions based on science, innovation and partnerships, to safeguard the planet. In this context, Sixth Session of the United Nations Environment Assembly (UNEA-6), hosted in February in Nairobi (Kenya), emphasized the urgency of promoting effective and sustainable multilateral actions to combat climate change, biodiversity loss and pollution. A frenetic decade of action has been envisaged by Member States to develop the network of interaction and dialogue necessary to meet these global challenges. In the following months, from March to June, other events of global importance took place, such as the International Day of Zero Waste, against unsustainable humanity consumption and production practices or The Fourth Session of the Intergovernmental Negotiating Committee in Ottawa (Canada), to develop an international legally binding instrument on plastic pollution, including in the marine environment.

Alongside the major meetings, a true constellation of other international days for the environment has developed, such as those concerning wetlands and human beings, migratory birds, 'Mother Earth', biological diversity, wildlife, etc.

It is impossible in the few lines of an editorial to summarize the kaleidoscope of initiatives which at a local and territorial level have animated the ecocritical debate and the anguish of the so-called Anthropocene and on environmental upheavals. On the other hand, each nation and culture today seems to have its own sensitivity and an even too differentiated agenda in terms of environmental awareness, worldview, green and/or eco-friendly initiatives and related debate. It is interesting to note in this regard that in Venice, the place of production of our Journal, the famous 'Biennale Arte' has always been a means of sending political messages and reflecting on ethical and social themes: in particular this year, the 60th Biennial edition of 2024, the pavilions were enriched with works, performances and installations in which several artists tried to tell the complex relationship between man and the environment, as well as provide food for thought on the fate of forests, artificiality, and the protection of habitats. In the fervour of this activity and debate, which does not only concern the political arena, but also the dimension of daily social life, of the creativity of art and aesthetics – and in particular in the face of growing military and state-induced environmental, human and non-human emergencies that at the moment are not subsiding – *Lagoonscapes: The Venice Journal of Environmental Humanities* continues to provide its uplifting contribution. 2024 is an important year for our Journal since it constitutes the turning point between the experimental, embryonic phase of the project and its development as such. In the complex and often agitated sea of Environmental Humanities, our publishing enterprise has passed what we could metaphorically define as the launch phase, i.e. the first complete three years of activity. Ecocriticism has perhaps been the most present discursive nucleus in *Lagoonscapes*: comparatist by vocation, in recent decades this approach has been nourished by the exchange between cultures and literature, recalling within its horizon the themes of postcolonial studies and decoloniality and the comparison between cultural traditions of different geographical areas and historical periods, multiplying its geographical spectrum in an archipelago of voices and interpreters. This literary soul emphasizes the analysis of the relationships between human and non-human and, more generally, between nature and culture, not excluding in some cases a pedagogy of environmental commitment and environmental empathy. However, it cannot be a beacon in the Environmental Humanities without the exploration and valorization of the artistic, cultural, religious (and not only literary) heritage of continents other than those commonly characterized by a European-based civilization, such as Asia, Africa and Oceania. Similarly, the animism and shamanism characterizing the cosmo-visions of the indigenous peoples and native ethnic groups of the Himalayan ridge, the Siberian steppes, and the Amazon forest are today considered the symbol of environmental resilience and

resistance to processes of modernization and indiscriminate exploitation of the territories. For these reasons, the three-year *Lagoonscapes*' adventure has collected essays and thematic issues from all over the world, relating to literary works and traditions, but also voices and testimonies of oral cultures. To do this it was essential to also go through the painstaking research of specialists in the fieldworks of ethnography and anthropology. Landscape anthropology, which proposed an epistemological and conceptual revision of the incisiveness of the anthropic dimension and its intrinsic relationships with the environment, can today be considered, in its most contemporary developments, an integral and essential part of the constructive process of Environmental Humanities.

Having therefore reached its fourth year, our Journal inaugurates a completely new work session based on calls for papers, in which we are proud to present contributions from colleagues and professionals of scientific research alongside the experimental and creative work of younger and new-graduate authors. A new session dedicated to interviews, performance art and aesthetics enriches the final part of this volume. Including this seventh volume (issue 1/2024), we can count so far more than seventy articles published in open access by our university publisher, Edizioni di Ca' Foscari, for the collaboration of around eighty authors and guest editors. Having reached this important stage of our journey, all we can do is thank all those who believed in this undertaking and in the importance and value of the interdisciplinary debate that a scientific journal like *Lagoonscapes: The Venice Journal of Environmental Humanities* can produce.

“The Sea Has Waves, The Fula Has Cows”: Moving Waters, Labour and Capital in Anthropocene Senegal

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Abstract In times of climate crisis, water has become a crucial resource of environmental justice and geopolitics, but its scarcity is socially constructed. It depends on socio-economic structures, cultural politics, and the sciences that are mobilized to manage its fluid processes. This essay argues for the necessity of a hydrosociological approach that integrates the current Anthropocene debates on the technological transformation of planet Earth with more reflection on waterscapes, especially in the Global South. Drawing on a recent publication by Maura Benegiamo, Capitalist developments in the Senegal Delta are here considered as exemplary of global investment strategies that produce brutal forms of extractivism, while displacing money, water, land, and people. Waterscapes reengineering of the Senegal flows, for the monocrop production of agrofuel, is alienating the Fula people of the Sahel the grazing land for their cattle. Such case calls for a political reassessment of the hydrosocial question of the Anthropocene along complementary lines of inquiry: socio-economic, cultural-political, ideological, and epistemological.

Keywords Senegal Delta. Hydrosociology. Land grabbing. Anthropocene. Capitalocene.

Summary 1 Introduction. – 2 The Hydrosocial Question of the Anthropocene. – 3 Benegiamo on the Senegal Delta and Global Capitalism. – 4 Concluding Remarks and Further Perspectives on Hydrosociology and Land Grabbing.



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Dialectics sees the world as fundamentally constituted of process, relation, and change. [...] Dialectics provides a way of understanding the flow of history as well as the flow of water, and reveals how these flows are very closely related. (Linton 2009, 25)

The water spoke of change, of the passing moment, and the rock of what endures, of geological aeons. A river is continually present, but the water in it is forever traveling, forever changed, forever renewed, a permanent instability that is often a metaphor of time. (Solnit 2004, 84)

1 Introduction

Rebecca Solnit's reference to the Heraclitan flow of water in Yosemite Valley points to its double meaning as a symbol of the passing moment and as a running quasi-locus of cultural heritage. Indeed, rivers, like coastlines and even waterfalls, occupy an abiding place in collective memory.¹ Eadweard Muybridge's iconic photographs of the waters and rocks of the Yosemite in the late nineteenth century are an example of such aesthetic legacies (Solnit 2004, 75-100). They can be seen as a rewilded water aesthetic in comparison to urban waterscapes, such as the classic ones, from the *vedute* of Venice's Piazza San Marco in the early modern period to the waterfront skyline of New York in the twentieth century (Krellig 2018). Muybridge and later photographers, most prominently Ansel Adams and Cedric Wright, working for the Sierra Club towards a new environmentalist sensitivity mediated by images, marginalized or erased humans from their 'vedute' to promote an ideal of pristine nature (Kelsey 2013). But natural and artificial waterscapes cannot be neatly distinguished, as landscapes are the embodiment and memory of natural-cultural dialectics (Iovino 2016). Hydrosociologist Jamie Linton points to the interconnectedness of the two movements of water and history, drawing on the Hegelo-Marxist dialectical conception of reality as a subjective-objective unfolding. By paying attention to the sociology of moving waters, both Solnit and Linton invite us to reconsider our geographies in terms of symbolic meaning and anthropic transformation, rather than wrongly assuming the background immutability of land and rock as opposed to the timescale of human history.

A short version of this essay has appeared as a book review as "The Senegal Delta and Global Capitalism", review of Benegiamo (2021), *La terra dentro il capitale: Conflitti, crisi ecologica e sviluppo nel delta del Senegal*, in *Monthly Review*, 75(9), 2024.

¹ On water as cultural heritage, see Vallerani, Visentin 2018.

Indeed, waters are less elusive than they seem at first glance. They offer some insight into the enduring embeddedness of human praxis in nature. Civilizations and societies have flourished where this element has been abundant and accessible (Wantzen 2023). In turn, geomorphologies are shaped by interventions to control, direct, and tame water flows over the centuries, if not millennia. These entanglements make a hydrosocial approach necessary – a novel cross-disciplinary paradigm that can integrate hydrology with the social sciences (Linton, Budds 2014; Osti 2023). Land use, investments, and engineering projects, especially in agriculture and energy production, raise deep concerns today. They relate to the unsustainability of economic forms of water, soil, and labor exploitation that are deepening the metabolic rift between natural cycles and industrial progress (Foster 2000; Padovan 2000; Saito 2023). To be sure, the social and ecological costs of environmental imbalances are not evenly distributed across the planet. Rather, unequal ecological exchanges take place in the framework of neocolonial political asymmetries, at the expense of the Global South (Foster 2000, esp. chs 1 and 10; Yusof 2018).

Eco-critical interventions in the Anthropocene debate have made us aware that socio-economic structures and political decisions are fundamental causes of environmental change, at both local and planetary scales. Accordingly, an analysis of capitalism is fundamental to a sound explanation of ongoing natural-artificial processes (Moore 2016; Malm 2016) and to the search for solutions to the environmental crisis (Fraser 2021). ‘Adaptation’ to climate change, if it is not accompanied by policies of social and environmental justice, increases inequalities in the desperate race for resources. This is at the expense of the most vulnerable:

The corporate quest for natural resources – as Naomi Klein points out – will become more rapacious, more violent. Arable land in Africa will continue to be seized to provide food and fuel for wealthier nations, unleashing a new stage of neocolonial plunder layered on top of the most plundered places on earth. (Klein 2014, 48-9)

In times of dramatic climate change, water also becomes a crucial geopolitical asset, but its scarcity is *socially constructed*. It depends on the social settings, cultural politics, and scientific abstractions that are mobilized to manage its fluid processes.² Thus, water has

² Linton’s research perspective is summarized in programmatic statements such as: “Water is what we make of it” (Linton 2009, 3) and “We will be considering water primarily as a process rather than a thing” (4). He also makes it clear that this is by no means a radical relativist stance, but rather a historical and sociological one rooted in a dialectical understanding of socio-natural reality.

long been at the center of modernist engineering projects and economic valorization, especially for agriculture and electricity production. Linton (2009, 52) mentions that dams account for about 40% of the world's irrigated land and 20% of the world's electricity.³ As he claims (in the opening quotation above), there is no purely abstract hydrological cycle, but rather a dialectic of nature and culture in which water flows and control over them are always separated in reality, so that they cannot be properly understood without history (Omodeo et al. 2022).

In this perspective, more environmental studies should address Anthropocene waterscapes starting from the Global South, not only because its vast expanses have been understudied but especially because they are exposed to the most brutal forms of extractivism, a central ecological and economic problem of the current geological epoch (Gómez-Barris 2017; Vindal Ødegaard, Rivera Andía 2019). The Global South is the target of massive programs of financialization of natural resources, which the eco-Marxist John Bellamy Foster has recently defined as the

Great Expropriation of global commons [...] justified on the grounds of saving nature by turning it into a market, thereby replacing the laws of nature with the laws of commodity value. (Foster 2022b, 5)

Moreover, politically disadvantaged areas pay the highest costs of unbalanced exchange. Their perspective is needed in order to achieve 'stronger objectivity' – to use the category of feminist epistemologist Sandra Harding (1993) – about ongoing global processes. This is the correction to the Anthropocene narrative called for by critical perspectives such as Kathryn Yusoff's:

This planetary analytic [the 'Anthropocene'] has failed to do the work to properly identify its own histories of colonial earth-writing, to name the masters of broken earths, and to redress the legacy of racialized subjects that geology leaves in its wake. It has failed to grapple with the inheritance of violent dispossession of indigenous land under the auspices of a colonial geo-logics or to address the extractive grammars of geology that labor in the instrumentation and instrumentalization of dominant colonial narratives and their subjective, often subjugating registers that are an ongoing praxis of displacement. (Yusof 2018)

A brilliant example of socio-critical environmental studies from the standpoint of the Global South is Maura Benegiamo's recent book

3 For a more general and up-to-date global water assessment, see Connor, Abete 2024.

in Italian, *The Earth Inside Capital: Conflicts, Ecological Crisis, and Development in the Senegal Delta* (Benegiamo 2021). Her case study deals with current capitalist investment strategies in Africa, their capacity to ‘move’ money, water and land, and to displace people. I would like to emphasize the relevance of her insights for a political reassessment of the hydrosocial question of the Anthropocene, although this is not her explicit concern. In this essay I take the question of Anthropocene hydrosociology as the background from which I zoom in into her analysis and theses. In the conclusion, I briefly discuss the connection between hydrosociology and political epistemology for a better understanding of the world’s waters.

2 The Hydrosocial Question of the Anthropocene

Rivers and deltaic regions have attracted attention in Anthropocene studies from the very beginning. After Paul Crutzen introduced the concept in 2000, researchers began to study river flows as an example of anthropic transformations of the Earth System (Syvitski et al. 2019). Among others, the Mississippi received particular attention as a test case for cross-disciplinary research concerning the natural sciences, the social sciences and humanities (Rosol et al. 2021). Other kindred sites – rivers, deltas and lagoons – proved particularly interesting for novel inquiries, such as the Yellow River and the Lagoon of Venice, that is, natural-artificial areas that offer well-documented evidence of *longue-durée* geo-anthropology. This includes archaeological remains and archival records (Mostern 2021; Omodeo, Trevisani 2022a; Bassani et al. 2022).

In the development of the Anthropocene debate, which has stretched far beyond the disciplinary boundaries of geology, environmental concerns have always played a central role. In this respect, rivers and deltaic regions are again quite relevant, as their unruly waters raise many concerns in terms of both water scarcity and water superabundance. Rising temperatures and sea levels increase the frequency of hazards such as flooding and land erosion. According to the sixth assessment report of the IPCC (22 March 2023), climate change requires urgent measures to tame water flows. However, it also indicates that, rather than “hard defences” (e.g. dams and embankments), river restoration along with the protection of wetlands, ponds and lakes, could be highly beneficial in mitigating the climate crisis on a global scale.⁴

⁴ IPCC 2023, 73: “Natural rivers, wetlands and upstream forests reduce flood risk in most circumstances (*high confidence*). Enhancing natural water retention such as by restoring wetlands and rivers, land use planning such as no build zones or upstream forest management, can further reduce flood risk (*medium confidence*). For inland flooding, combinations of non-structural measures like early warning systems and structural

Recent interdisciplinary developments in hydrology - variously labeled 'socio-hydrology' or 'hydro-sociology', depending on whether the emphasis is on the social or the engineering part - have embraced the challenge of the Anthropocene. Indeed, they have dispelled the once cherished image of the water cycle and water engineering as pure forms of knowledge and intervention that can treat the molecules of H₂O in isolation from their ecological and cultural contexts. In fact, the 'hydro' and the 'social' are so deeply intertwined that there is hardly a drop of water on our planet that has not been touched by techno-science. Our technological practices affect the Earth System as a whole in multiple ways that are related to global developments - technological, economic and political. This is why

water internalizes and reflects social and power relations that might otherwise remain invisible. This, in practice, implies that we need to think differently about water, attend to the social circumstances of water circulation, and ask questions about how water, social structures, power relations, and technologies are internally related. (Linton, Budds 2014, 178)

Briefly put, hydrosociology considers the reciprocal making of social structures and water flows, thereby offering a dialectical key to understanding Anthropocene waters.

As for Anthropocene sociology, historical epistemologist Jürgen Renn has aptly pointed out that the technosphere, which today functions as a major geological factor, cannot be understood without considering the maintenance labor required for its constant production and reproduction (Renn 2020, ch. 16). The technosphere is only relatively autonomous, as it cannot do without human activity (Haff 2019). Labor and machines - as is well known among sociologists of science and technology - are embedded in evolving social formations, power relations and mentalities (Omodeo 2018, drawing on Boris Hessen and Antonio Gramsci). Of all the forces of social transformation, capitalism has been a fundamental driver of change since the inception of modernity in the sixteenth century and perhaps even before. It is the engine of accumulation and concentration of monetary wealth, according to the logic expressed by Karl Marx in the formula M-C-M.⁵ As ecological critics of capitalism have stressed, dominant forms of economic reductionism (especially neoliberal politics) have not only fostered instrumental relations between capital owners and wage laborers, but have also historically profited from colonial exploitation,

measures like levees have reduced loss of lives (*medium confidence*), but hard defences against flooding or sea level rise can also be maladaptive (*high confidence*)".

5 On the materiality of capitalist civilization, one can still rely on Braudel 1973.

the control of reproductive practices – especially the relationship between women and their bodies – and the massive depletion of natural resources (Federici 2004; Barca 2020). The epistemological divide between the natural and social sciences actually reflects an ontological rift which accelerates the ecological imbalance between resources-devouring economic processes and natural regenerative cycles. This finds its most vivid representation in the calculations of the so-called Earth Overshoot Day, that is, the date on which the renewable resources of the Earth’s annual budget are exhausted.⁶

Water management, it is often claimed, has been at the heart of the flourishing and even the collapse of societies and civilizations. According to Karl August Wittfogel (1957), Asiatic empires rested on grandiose hydroengineering that allowed them both to thrive and to establish centralized, despotic forms of rule. His political-epistemological interpretation has proved at once fruitful, as a starting point for later hydrosociological research, and limited, as it has ostensibly reinforced Orientalist prejudices. However, the interrelationship between water flows, their regulation and the forms of knowledge associated with them is undeniable and still fuels important lines of inquiry in environmental history (Amrith 2018), the social history of science (Mukerji 2009; Chakrabarti 2020) and cultural anthropology (Strang 2023). A crucial takeaway from these explorations of water cultures is that human agency cannot be objectified as a blind force, but must be understood on the basis of the consciousness, intentions and imaginations that direct and redirect human geological praxis (Omodeo 2022). The mobile infrastructures of today’s global society could perhaps be described as the “semiotics of Integrated World Capitalism” that underlie processes of subjectivation and are in turn transformed by sensing, knowing and acting subjectivities. Félix Guattari considered four such factors in particular: natural environments, the economy, technoscience and mentalities (culture-cum-ideology). Together, they constitute the multiple object of natural-artificial ecology as a geanthropological reality (Guattari 1989).

3 Benegiamo on the Senegal Delta and Global Capitalism

Against the background of the Anthropocene hypothesis, including hydrosociology and political-epistemological concerns about the co-constituency of humans and their environment, one can appreciate the contribution of the sociologist of science Benegiamo to the understanding of the relationship between capitalism, water and soil, on

⁶ This year the date was 2 August 2023. <https://www.overshootday.org>.

the basis of a study of investments and social dynamics in Senegal.⁷ Her book offers an informed and critical analysis of the entanglements of hydroengineering, agriculture, globalization, land grabbing and political conflicts in the Ndiaël reserve of the Senegal river delta.

Benegiamo outlines the local, historical and global contexts of the case that the book examines: the investment of an Italian company specialized in the production of vegetable oil and agro-energy in the Senegal delta. This geographical area already was already a place of intense agricultural, social and botanical experimentation when it was a French colony, but after the country's independence in 1960, it was invested by massive projects of rice production. Over the years, hydroengineering projects and the expansion of agricultural land use (which began in the 1960s but accelerated after the 1980s) have deprived the pastoral communities and their animals of 70% of their pastures. Some figures can help to understand the dimensions of the problem: in 1964 alone, a dam 82 km long alienated 30,000 hectares of land (Benegiamo 2021, 51); moreover, between 1980 and 2000, the amount of irrigated agricultural land increased from less than 10,400 ha to 44,000 ha. Immediately, the government promoted the immigration of sedentary farmers into the delta area. Under these conditions, a common land such as the Ndiaël reserve has become increasingly valuable as a refuge for shepherds, whose cattle require large grazing land and access to water.

The arrival of the Italo-Senegalese company Senhuile-Senethanol, according to Benegiamo's reconstruction, introduces an additional concern from both an environmental and social point of view. Indeed, its acquisition (in the form of a 50-year concession) of 20 Kha has *de facto* privatized a large part of a protected area (the full extension of which is 46 kha), without taking into account the fact that it constitutes a vital resource for wild species and for shepherds' livestock. To make this operation possible, the area had to be downgraded from its protected status. This move, approved by President Abdoulaye Wade, is particularly unfortunate because the Ndiaël reserve - a French hunting ground in colonial and post-colonial times - was included in the Ramsar Convention on Wetlands (1971), which Senegal was the first country in West Africa to sign in 1977. Unfortunately, Ndiaël was added to the Montreux list of ecologically degraded wetlands in 1995. The construction of dams since the 1950s and the steady use of water for agricultural purposes have made the area drier.

This Senegalese version of the tragedy of the commons threatens the lives of the local cattle farmers. The tendency to marginalize them has not really changed, although the sustainability of pastoral semi-nomadism has been acknowledged as an eco-dynamic practice

⁷ For a broad hydrosocial introduction to the Senegal river, see Taïbi et al. 2023.

capable of adapting to elusive rainfall and meteorological patterns. Benegiamo stresses that the movement of cattle in the Sahel has proven to be of great ecosystemic value, for example in fertilizing the soil, spreading seeds and eradicating flammable dry vegetation that could cause fires. As she argues, the very concept of habitat should be revised, since it concerns the “co-production of human and non-human activities, which interact towards the maintenance of dynamic balances, functional to the preservation of an ecosystem” (Benegiamo 2021, 61; Author’s transl.). Such a remark is very much in line with the Anthropocene epistemology about the need for an adequate scientific-historical paradigm capable of explaining the co-production of human cultures and their natural environments. In particular, the importance of pastoral life has been acknowledged by recent legislation in West-African countries such as Niger and Guinea (since the 1990s), Mauritania (2000), Mali (2001) and Burkina Faso (2002).

Benegiamo also outlines the broader geopolitical context of the investments in the Senegal delta as part of new global patterns of neoliberal governance, which can be traced back to the establishment of the World Trade Organization in 1995 and reached a peak in the food crises of 2007-08. After this turn, the acquisition of land and the control of primary production by large multinational corporations became imperative for them in order to navigate the fluctuations of the financial markets (on which, see also Benegiamo 2022). The acquisition of land naturally implies that of water: its regulation and exploitation, the drying up of biologically valuable ‘muds’ and the denial of access to water for local communities. As Benegiamo argues, the phase of globalization that began in the 1990s induced a shift in Africa from ‘developmental’ politics, aimed at self-sufficiency to ‘food-security’ strategies aimed at securing access to commodity markets. The new logic was one of national differentiation and specialization of production within a global space of free trade. This shift ‘from production to circulation’, promoted by institutions of global governance such as the World Bank and the International Monetary Fund, implied the ‘re-primarization’ of African economies. The institutions of global governance regarded Africa as a specialized agrarian space. Accordingly, its hydrosociology was redirected towards maximizing monocrop production. However, this policy and the increasing mechanization of agriculture made it vulnerable to financial fluctuations, especially in relation to the prices of oil and chemical products. This vulnerability was most evident in the food prices crisis of 2007-08.

To capture the economic developments that frame the investments in the Ndiaël wetlands, Benegiamo resorts to the concept of ‘agrarian extractivism’. She defines it as “the intensive exploitation of the territory [...] for goals that are alien to the territory itself, the uses of the local population and the preservation of environmental balances”

(Benegiamo 2021, 69; Author's transl.). Extractivism can be seen as an inverted version of earlier models of development. Indeed, it is mobilized

in contrast with the dirigiste policies adopted by post-colonial and socialist governments centered on the modernization of local agricultural systems to achieve national self-sufficiency. (Benegiamo 2022, 158)

Instead of ensuring the self-sufficiency of states, it makes their economies more dependent on external factors with devastating social and environmental consequences. As the Senegal case shows, current investments concern the land, but neglect labor and people's welfare.

These considerations lead Benegiamo to critically engage with the relationship between dominant 'narratives of development' and processes of land grabbing in subsequent phases of Senegalese history - we could call this process, from a hydrosociological perspective, land-and-water alienation. According to Benegiamo, the three most powerful ideas behind these changes are: 'modernization', 'energy transition' and the myth of the beneficial impact of 'private investment'. They have become major ideological factors of social legitimation and transformation, replacing earlier national policies based on the centrality of the state. A decisive moment was the signing of agreements with the IMF and the WB in 1980. They introduced neoliberal agricultural policies in Senegal. According to them, the state had to step back from production. In 1995, the WTO imposed the suppression of customs duties and the end of price controls. This plunging of the Senegalese economy into a deregulated global market impoverished small producers and triggered a large phenomenon of farmers' migration that continues to this day. New investments in agrofuel, spurred by EU renewable energy directives, exacerbated these trends around 2000. Later, the global crisis of cheap food led entrepreneurs from capitalist centers to buy land, and this new investment policy particularly affected Africa. In Madagascar, for instance, the concession of 1,300,000 ha of agricultural land to the South Korean company Daewoo Logistics in 2008 sparked a major revolt, which caused a rapid change of power and the suspension of the project.

Italian investors in Senegal also met with opposition and clashes. Unrest in Senegal has affected political decisions on land concession and water use. The concession of the Ndiaël reserve on the Senegal delta was the result of long negotiations and compromises, after other sites proved more conflictual. The choice of an ecological protected area signals the fragility of the commons, as a target for privatization in times of neoliberal hegemony. Benegiamo also

addresses the environmental fate of this commons. As she reports, Senhuile never felt accountable for its interventions: the poisonous spraying of pesticides from airplanes, the side effects of its irrigation systems and water use, the desertification effects of the deforestation of 6,000 ha of savannah for monoculture, and the dangers to people's health and well-being. Benegiamo considers, among other things, the case of the canalization works. They severely restricted pastoral mobility and irreversibly altered grazing paths. Access to wells became difficult for villages. Moreover, the lack of protection caused animals and children to drown (Benegiamo 2021, 123).

The marginalization of pastoral life and shepherds is one of the most dramatic consequences of these developments. Benegiamo regards them as the triggers of a cultural crisis that can only be understood by stepping back from modernist fantasies of technological progress and taking a closer look at local customs, practices and beliefs. To this end, she describes in detail the special relationship of the Fula people of the Sahel ('Peul', in French) with their cattle. This finds expression in mythologies and identities, as described by the Guinean writer Tierno Monénembo in his novel *Peuls*:

In the beginning, it was the cow. Guéno, the Eternal, first created the cow. Then he created woman; only after, the Fula. He put the woman behind the cow. He put the Fula behind the woman. This is what the genesis of the shepherd says, this is what the holy trinity of the shepherd does. (Monénembo 2004, 11, quoted in Benegiamo 2021, 136; Author's transl.)

For these people, the relationship with the cattle is not one of ownership, but rather one of mutual belonging, because humans and animals have a parallel lineage. Their ancestors already belonged together. As a Fula song says:

God has the whole universe, the Fula has cows.
The savannah has elephants, the Fula has cows.
The cliff has monkeys, the Fula has cows.
The moor has deer, the Fula has cows.
The sea has waves, the Fula has cows.
(Monénembo 2004, 12, quoted in Benegiamo 2021, 136; Author's transl.)

But private companies, which have replaced the state in with the task of 'developing' and 'modernizing' the country, silence the shepherds and relegate their culture to an image of backwardness and superstition. In this sense, they perpetuate colonial violence under new conditions, because, as Amilcar Cabral lucidly remarked

whatever may be the material aspects of this domination, it can be maintained only by the permanent, organized repression of the cultural life of the people concerned. (Cabral 2023, 78)

Under these conditions, democracy and solidarity become secondary with respect to private interests. In order to mask this situation, the image of the 'responsible' company is created and propagated in many ways, including through philanthropic projects. By contrast, dissent and protests become invisible and are criminalized. Local communities are not treated as legitimate stakeholders in economic transactions that take place far above them. Yet, environmentally and socially just development would require socialized and transparent forms of decision-making. Furthermore, as Benegiamo reports, there is a lot of pressure on shepherds to become sedentary, but this cannot really happen without investment, adequate structures and the production of sufficient livestock fodder. Sedentary farming is also less resilient to climate change, as shepherds and their animals cannot adapt to the weather conditions by following the rain. In the face of these contradictions, claims about entrepreneurial ethics merely conceal the lack of regulation. Furthermore, the widespread image of empty African land to be put into production is a continuation of colonial dreams of appropriation and domination that do not respect the dignity of those from whom common land is taken.

4 Concluding Remarks and Further Perspectives on Hydrosociology and Land Grabbing

In her book on Senegal, Benegiamo stresses that the nomadism of pastoral life has proven more resilient to climate uncertainties than monoculture and sedentary agriculture, because it is more adaptable to the contingencies of rainfall patterns. This is a very relevant issue, because the Sahel has been threatened by drought and famine throughout the second half of the twentieth century. It is useful to recall that, when one of the worst such tragedies in recent years struck this region in the Sixties and Seventies, international organizations such as the FAO were quick to acknowledge the existence of social, economic and political responsibilities. The Argentinian philosopher of science Rolando Garcia, director of the research program on *Drought and Man* for the International Federation of Institutes for Advanced Study, came to the conclusion that societies are not passive in relation to the climate because they are agents of climate change and, what is more, the organization, practices and use of resources (especially water and soil) make societies more or less vulnerable to climate change:

We stated above that ‘there is a tendency to consider climate and climatic fluctuations as a *given*’ and that ‘society is thus conceived as a passive receptor of the impact of climate’. In verbal discussions on these matters we have found readiness to accept this criticism, but for the wrong reasons. The usual answer is: ‘of course, we must take into consideration that society in turn modifies the climate’. This may be true, but we do not mean only that. We refuse to consider society as a passive receptor of climatic ‘impact’, not – or not only – because society may in turn influence the climate, but because climatic phenomena are only meaningful with reference to a certain society. (Garcia 1981, XII)

David Harvey later emphasized the existence of path-dependencies, in which societies forge natural conditions for their reproduction and the perpetuation of the status quo in a kind of reflexive mechanism. Ecological transformations can make the society that generated them necessary for the maintenance of the very material conditions of social life (Harvey 1996, 94).

The interconnection between climate and society is also well documented in the UNESCO’s Arid Zones Initiatives of 1948-64 and, later, in its Water Programmes. These programs have long recognized the economic and social importance of water knowledge and, since the 1990s, have emphasized its relevance to environmental politics – or ‘sustainable development’ (Salih 2015). Hydrosociology, as a two-pronged inquiry into the human and natural dimensions of water, has now been included in the IX Strategic Intergovernmental Hydrological Programme, for the five-year period 2022-29, in relation to the cross-disciplinary approaches linking hydrological and sociological forms of knowledge. From the viewpoint of hydrosociology, river engineering and the transformation of waterscapes exemplify human-natural processes (Sivapalan et al. 2012). This assumption calls for a closer investigation of the social structures and their history, as well as the forms of political agency that have shaped them. This program clearly embodies an Anthropocene line of research:

The UNESCO Intergovernmental Hydrological Programme (IHP), founded in 1975, is a long-term programme executed in successive eight-year phases. Its programmatic focus has gone through a profound transformation from a single discipline mode, to a multi-disciplinary undertaking, aimed at advancing hydrological knowledge through supporting scientific research and educational programmes. Ever since the early 2000s, with the increased presence of social science components, including growth in the quality and quantity of citizen science inputs, IHP has been evolving into a truly transdisciplinary undertaking. This progress has

capitalized on the recognition that solutions to the world's water-related problems are not just technical, engineering or natural science issues, but have strong human and sociocultural dimensions, where social sciences play an increasingly important role. (IHP 2022, 3)

Benegiamo's book is an example of the sociological studies that can be brought to bear on an Anthropocene investigation of the geological and anthropological components of river flows. As she demonstrates, the recent history of Senegal shows that the politics of water and soil cannot be separated from political decision-making and economic interests. Africa must be at the center of understanding these global processes, where access to resources will become increasingly conflictual unless transboundary cooperation is implemented (Stephan, Dumont 2024). Arguably, the geopolitical competition between economic actors and political powers over resources is currently exposed by the West African conflicts, which go far beyond the regional scale. Extractivism, as Benegiamo remarks, concerns not only mining (for example, of uranium, rare earths, gold and diamonds), but also agriculture. Investments, such as Senhuile's in the Senegal delta, are part of large programs of landscapes and society reengineering. Water is at the center: this is the most precious resource for the lives of humans, livestock and plants. As Jeremy Schmidt has argued, managing water is tantamount to managing the conditions for life itself (Schmidt 2017, 20). Conflicts over its use are at once struggles over different visions of society and values. They are inscribed in the territory, as rivers are major factors of geomorphological transformation.⁸

These natural and social path dependencies are inscribed in landscapes as sites of cultural heritage and natural-cultural scenographies for future generations. Since the early modern period, as Philippe Descola has argued, landscapes and their representation have been prototypical of the culturalization of nature and the naturalization of culture:

The infinite and homogeneous space of linear perspective is [...] constructed on axes that start from an arbitrary point, that of the direction of the gaze of the observer. So a subjective impression serves as the starting point for the rationalization of a world of experience in which the phenomenal space of perception is transposed into a mathematical space. Such an 'objectification of the subjective' produces a twofold effect: it creates a distance between man and the world by making the autonomy of things depend upon

⁸ In Omodeo, Trevisani 2022b we take the Lagoon of Venice as an example of natural-cultural geomorphological transformation.

man; and it systematizes and stabilizes the external universe even as it confers upon the subject absolute mastery over the organization of this newly conquered exteriority. (Descola 2013, 59-60)

What the Anthropocene debate adds to this is that the internal-external logic of domination and objectification is not just a problem of abstraction and symbolic representation, but one of ecological and social change. The inscription of land in capital, as the title of Benegiamo's book suggests, is actually a technological inscription. In this regard, it is useful to quote once again one of the best-known ecological passages of Marx's *Capital* (vol. 1, chap. XV, 10), which points to the double exploitation of the land and the workers as a consequence of the absorption of the countryside in industrial mechanical production:

All progress in capitalistic agriculture is a progress in the art, not only of robbing the labourer, but of robbing the soil; all progress in increasing the fertility of the soil for a given time, is a progress towards ruining the lasting sources of that fertility. The more a country starts its development on the foundation of modern industry, [...] the more rapid is this process of destruction. Capitalist production, therefore, develops technology, and the combining together of various processes into a social whole, only by sapping the original sources of all wealth – the soil and the labourer. (Marx 1976, 637-8)

The current transformation of the Senegal, following a pattern that is similar to that of other regions of the world, falls today under the compass of a neocolonial land-grabbing phenomenon that alienates the soil and inserts it into the economic circuits of production and commodification. Benegiamo's research reminds us that the Anthropocene predicament of a riverine system like the Senegal delta and the ecological and social future of a commons like the Ndiaël wetlands will depend on our ability to critically assess and resist a new wave of the "so-called primitive accumulation" (Angus 2023), in Africa and elsewhere.

These remarks mainly concern the 'political economy' of water-scapes, that is, their necessary inscription in economic and political agendas. Moreover, since the organization, maintenance and use of water are inscribed in antagonistic settings, their understanding must be situated (that is to say, it cannot assume an external, quasi-divine viewpoint 'from nowhere'). In particular, it is the perspective of the Global South, that is, of the countries and populations that are most directly affected by extractivist politics and unequal exchanges.

In my view, the outlined economical-political critique, as fundamental as it is, cannot do without the complement of political epistemology (Omodeo 2019). Indeed, a critical reflection on science and technology is crucial for an adequate assessment of the material and

cultural (intellectual, spiritual, symbolic) developments of societies in general. This holds true for our epoch, in which science has proven to be an essential force of production and reproduction, while technology has become the main factor of geological transformation of the Earth System (Renn 2020). From the perspective of a critical theory of knowledge (or political epistemology), scientific abstractions and the material transformations they produce signal the non-neutrality of scientific knowledge and the profound political significance of its concepts and theories (its so-called ‘historical a priori’).

In this essay, I have in mind in particular water knowledge, for which a political epistemology of hydrosociology is needed. Attempts to understand water and its cycles independently of human agency and culture are proving inadequate to the challenges posed by the current multiple planetary crises – challenges that are summarized in the Sustainable Development Goals of the UN Agenda 2030. No abstraction is absolutely valid, nor is there any necessary unique solution (or unique technical solution) to resource-related problems. Validity and goals are inseparable.⁹ Accordingly, water politics cannot be reduced to the mere modeling, calculation, engineering and control of flows. Rather, it is at once a technical, environmental, biological and cultural issue. It calls for multidisciplinary collaborations based on ideals that ought to be made explicit in order to provide directions for collective action. Hydrosociology, according to the authors and the perspectives I am discussing here, should be linked to a dynamic and multiple understanding of the natural-cultural reality. This is the result of the entanglement of several processes that include: natural ecosystems, socio-political agency, psychological-cultural meaning and technoscience. By adopting an epistemology of contextual situatedness, hydrosociological knowledge embraces a historical perspective from below that promotes more democratic, socialized and cross-cultural paradigms. As scholars like Linton have argued and sociologists of science like Benegiamo have shown, the planet is not an abstract cosmological or geological entity devoid of human subjectivity and agency; rather, it poses a problem of global governance that can best be understood from a perspective from below that takes into account the unequal relations that ground the Anthropocene conjuncture. In this respect, I see UNESCO’s original perspective – as outlined in its 1945 Constitution – as an apt expression of a non-neutral epistemology, since it explicitly targets peace and prosperity as goals to be achieved through scientific exchange and mutual cultural understanding:

⁹ Ciccotti et al. (forthcoming) brought forward the thesis of the non-neutrality of science and the cultural-political shaping of scientific theories in a paradigmatic manner in their classic work on political epistemology of the Seventies. See also Rose, Rose 1976.

the purpose [is] of advancing, through the educational and scientific and cultural relations of the peoples of the world, the objectives of international peace and of the common welfare of mankind.¹⁰

Accordingly, for the pursuit of greater concerning the world's waterscapes and their interdependencies, critical thinking should address the ideological, epistemological, economic and political conditions of oppression and potentials for emancipation. This requires a different hydrology is needed, one that learns from the experiences of the Global South and emancipates silenced voices from subalternity.

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¹⁰ *Constitution of the United Nations Educational, Scientific and Cultural Organisation*, signed at London, on 16 November 1945. https://treaties.un.org/Pages/showDetails.aspx?objid=08000002801651f0&cLang=_en.

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Post Nature and Ecocritical Epic in Namwali Serpell's *The Old Drift*

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Abstract Although in postcolonial ecocritical literature the agency of animals finds full recognition, representations of insects are so rare that curiosity arises about their untapped ecocritical meaning. Interestingly, in Namwali Serpell's *The Old Drift*, a chorus of mosquitoes takes centre stage. In the first section of this paper, I argue that Serpell's novel recontextualises classical references, placing them between adaptation to the conventions of epic poems and innovation. In the second section, the ecocritical meanings of the chorus of mosquitoes are analysed and framed in relation to the concepts of 'simulacrum' and post nature.

Keywords The Old Drift. Namwali Serpell. Post nature. Ecocriticism. Epic poems.

Summary 1 Introduction. – 2 De-Centring the Epic: Between Classical References and Innovation. – 3 Post Nature and the Drift of Epic. – 4 Conclusion: A Disjointed Simulacrum of Nature.



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1 Introduction

Reflecting on the discrepancy between bucolic scenarios and the altered face of nature in current times, Jesse Taylor stated that

In the Anthropocene, nature is more likely to be an antibiotic resistant microbe, an invasive species, or a superstorm than a harmonious pastoral scene. (2015, 882)

This way of thinking about nature outside of inadequate idyllic frames and observing its manifestations is one of the aspects that the Zambian writer Namwali Serpell deals with in her novel *The Old Drift* (2019), where she provides another example aligned with Taylor's reasoning: a swarm of mosquito drones spinning the threads of an epic narrative involving numerous characters whose destinies are tied to the tiny cyborg insects more than the human perspective can easily accept.

Undoubtedly, the ecocritical emphasis on alternative ways of seeing the environment, relating stories and producing knowledge has placed animals at the crossroad of new sensibilities and practices aimed at rethinking and decentering humans' positioning in the world. The convergence of animals, environment and literature is particularly strong in postcolonial ecocriticism. While Zakes Mda's *The Whale Caller* deals with human-nonhuman encounters through the character of Sharisha, a southern right whale with a "perfect bonnet of pure white callosities" (2005, 47), Ben Okri has recently imbued Blake's tiger with ecocritical hues by calling for a "Tiger spirit" (2023, 75) in order to spur humankind to take action against climate change. Literary criticism and theory, too, have used specific animals as conceptual keys to develop literary enquiries and outlining theoretical frameworks. Two good examples are the elephant, whose absence in *Heart of Darkness* has sparked Huggan and Tiffin's interest (2015, 162), and the dog, with Donna Haraway dedicating one of the chapters of *Staying with the Trouble* to the explanation of the practices of 'becoming-with' and 'response-ability' that she experiences alongside her dog Cayenne (2016, 104).

Yet, given the wide variety of these animals, it is interesting that Namwali Serpell draws attention to the ecocritical meanings possessed by a swarm of cyborg drones. In the curious form of mosquitoes, the often-neglected category of insects is of paramount importance in *The Old Drift*, the writer's first novel, which spans more than three generations of Zambians and the history of the country from the colonial period to recent times in a surprising move from realism to science fiction. Combining traits of different genres among which the historical novel, science fiction, magical realism and, especially, the epic poem, the novel is concerned with various themes that

emerge as the history of Zambia develops through the lives of the characters, such as colonialism, Zambian independence, HIV and resilience in the face of hardships. Ecocritical themes such as environmental exploitation, the sustainability of technological developments and e-waste are equally to be found in the plot. In Serpell's epic novel, mosquitoes become narrators in italicised choruses from the very beginning, directly addressing readers and highlighting their unacknowledged entomological agency and storytelling:

Your earliest tales were of animals, of course, beastly fables carved into cave walls. Well, it's time to turn the fables, we say, time for us to tell you what we know. (2020, 19)

In what follows, I will try to break new ground in the study of the relationship between animals and epic by focusing on the ways in which the chorus of mosquitoes both follows and upends the epic model, thus providing a variation on the literary uncertainty Namwali Serpell admitted to finding compelling (Cummins 2022). First, I will demonstrate how Serpell entwined the representation of the chorus of mosquitoes with threads from the classical tradition, echoing Virgil in particular, while adapting the conventions of the epic in a creative way. I will then move on to tease out some ecocritical principles outlined and deepened by her choice of narrators, especially the concept of post nature discussed by Timothy Clark and the ecocritical meaning of 'simulacrum'. Aside from addressing a lack of attention to the creative role of insects in ecocritical narratives and spurring new thoughts in the field of animal studies that has developed mainly within ecocriticism (Buell 2011, 106), this paper will also investigate a recent example of postcolonial ecocriticism whose environmental meaning is as powerful as its classical references are piercing.

2 De-Centring the Epic: Between Classical References and Innovation

Namwali Serpell stated that "What we think of as novel often emerges out of the combination of pre-existing cultures or traditions" (Lea 2019). Thus, to discuss the classical echoes woven into Namwali Serpell's *The Old Drift* is not a variation on what Chakrabarty called the "inequality of ignorance" (2008, 28), but rather allows us to discover a part of the novel whose importance and layers of meaning are heightened by Serpell's evident familiarity with Latin and Greek classics. To make this point, one could cite the epigraph of the novel - a quote from Seamus Heaney's translation of book VI of Virgil's *Aeneid* -, the nods to *D'Aulaires' Book of Greek Myths* (Serpell 2020, 263), the mythological references embodied by a character called

Sibilla (Monaco 2020, 103) and the author's clear interest in the etymologies of Greek and Latin words, such as 'Anopheles' (Serpell 2020, 431), 'error' (2) and 'commensalism' (402). Some of these references, especially the etymologies and the epigraph concerning Virgil's Elysian Fields, have ecocritical traits for their reversal of anthropocentric assumptions and the representation of nature. It ought to be specified that Serpell's is not the only novel in African postcolonial literature that rewrites and re-works the classics, thus engendering a fecund literary cross-pollination and widening of horizons. It is clearly beyond the scope of this paper to cover the many African anglophone novels steeped in classical mythology; yet, a significative example ought to be made so as to also clarify the innovations in Serpell's epic novel.

The Nigerian author Chigozie Obioma has recently experimented with the epic genre in *An Orchestra of Minorities* (2019b), a novel with echoes of *The Odyssey* (Meyer 2019), an epic poem whose charm also partly animates Amitav Ghosh's *Gun Island* (Alam 2019). Since the writer confessed to being familiar with Greek mythology (Obioma 2019b), in his text, classical references could reasonably be expected to be more piercing than generic echoes of Homer's classic. Indeed, *An Orchestra of Minorities* may resonate more specifically with Apollonius Rhodius's version of Medea and Jason's myth – in what, if purposeful, Mason would call a “specific unmarked intertextual reference” (2019, 82). In *Jason and the Argonauts*, Jason and Medea run away together with the stolen golden fleece but are intercepted by a fleet led by Absyrtus, Medea's brother. He is lured into a meeting with his sister – who pretends to be ready to betray Jason and the Argonauts – but finds death awaiting him: he is mercilessly felled by Jason's sword. In the myth, the horror of murder and the perennial stain it means for Medea, given that she is complicit in fratricide, is symbolically represented by Absyrtus's last gesture:

he caught,
in both his hands, the crimson geyser streaming
out of the wound and smeared his sister's mantle
and silver veil as she recoiled from him.
(Poochigian 2014, 168, book 4, vv. 603-6)

At the beginning of *An Orchestra of Minorities*, Chinonso runs into Ndali, a young woman who is on the verge of attempting suicide, and decides that the best way to convince her not to jump from a bridge is to show her the utter horror of drowning. Yet, in order to do this, he has to sacrifice two chickens, winged animals that he loves deeply. After letting them plunge into the river, a white feather ominously lingers on his hand as if to mark him, reminiscent of the splash of Absyrtus's gushing blood on Medea's bright garments:

he watched the birds struggle against the thermal, whipping their wings violently against the wind as they battled desperately for their lives but failed. A feather landed on the skin of his hand, but he beat it off with such haste and violence that he felt a quick pain. (Obioma 2019b, 14)

The tragic echoes that Obioma masterly evokes and that vividly underpin this passage are heightened by the tangible impression that Chinonso's sacrifice of the chickens and his prioritising Ndali over what he loves will have a heavier import on the story than readers can fully grasp for the moment. Like Absyrtus's murder, the sacrifice of the chickens marks a point of no return deeply imbued with a sense of foreboding.

In Serpell's *The Old Drift*, classical echoes punctuate the story, but are projected particularly onto the narratological sphere and the Greek chorus of mosquitoes. Framing and gently interrupting the story between chapters, the tiny insects craft a quasi-preface rooted in the colonial past of Zambia. Interestingly, the incipit of the mosquitoes' narration is devoid of the typical invocation that is a mainstay in Homeric epic poems. Epic narrations of African myths, such as Ngũgĩ wa Thiong'o's *The Perfect Nine*, usually entail an invocation too:

I, teller of this tale [...]
Implore the Giver Supreme to bestow peace in my heart, so
that
I can render this tale of Gĩkũyũ and Mũmbi and their Perfect
Nine,
Exactly the way the wind whispered it to my soul.
(2023, 11)

In this case, though, rather than asking to be granted a space for literary expression and invoking help in order to find their voice, the mosquitoes vocally claim the right to tell their story with no intermediaries for inspiration. Rather, they confidently draw attention to themselves and their role:

And who are we? Thin troubadours, the bare ruinous choir, a chorus of gossipy mites. Uncanny the singing that comes from certain husks. (Serpell 2020, 19)

One should also admire their patience, as the swarm agrees to relate the story in chronological order so as to make it easier for their human listeners to follow, although they would sooner adopt a more holistic perspective.

In Serpell's multi-tiered and varied story, the double scourges of malaria and HIV are dealt with, one haunting the colonial settlement

of *The Old Drift* and one impinging on the second generation of characters, with Dr Lee unsuccessfully trying to cure it once and for all. Brokering “*between flesh and disease*” (Serpell 2020, 431), the chorus of mosquitoes is obviously familiar with malaria and fevers, which led to the demise of innumerable people of note across the world since the inception of humankind, as the mosquitoes smugly remind:

Reckon the great men littered in our wake, or the wake of the fevers we carry: Dante. Vespucci. The King of Siam. Da Gama. Three of the Medicis. Oliver Cromwell. The twelve-day pope. Lord Byron. Livingstone, of course. Behold the might of the mite! (545)

From the very beginning, then, the swarm offers an alternative genealogy and highlights the havoc that can be wreaked by a pathogen and tiny creatures on the chessboard of human history.

Serpell’s novel is clearly not the only one to be concerned with illnesses in a way that could make a good case for the medical humanities. Among the most recent examples, suffice it to remember Abraham Verghese’s *The Covenant of Water* (2023) and its engagement with the themes of the lives of lepers and leprosy:

Leprosy deadens the nerves and is therefore painless; the real wound of leprosy, and the only pain they feel, is that of exile. (2023, 201)

What sets Serpell’s text apart from others is the narratological move of handing the narration over to the agents of contagion and making narrators of mosquitoes, which may seem to stretch what J.M. Coetzee called “sympathetic imagination” (2016, 35) to its limits. With this choice, Serpell’s novel applies to new contexts Dobrin’s blue ecocritical reflections on the microscales and macroscales – which for the scholar determine the fluid or solid perception of oceanic water (2021, 46) but in *The Old Drift* are seen as regulating a complex narratological frame – by undertaking the unprecedented task of fashioning a long epic solemnly related by a chorus of minuscule beings.

It has been aptly pointed out that the chorus of mosquitoes is reminiscent of that in Greek tragedy (Biasio 2021), but, in my opinion, Serpell’s text lends itself to reflections on the recontextualisation of the mechanisms of choruses not exclusively in Greek tragedy, but also comedy. Ancient choruses consisted of a single-voiced group of characters and their prominence varied noticeably depending on the author in question. While Aeschylus’s works display a use of chorus that puts it on equal footing with the characters, Sophocles’s tragedies reconsider the chorus’s prominence, as do Euripides’s works. In a similar vein, the mosquitoes are numerous individual insects but their common chorus springs from “*the effect of an elementary*

principle: with enough time, a swarm will evolve a conscience" (Serpell 2020, 19). As for Greek comedy, Serpell's chorus of nonhuman creatures almost invites comparison with some of Aristophanes's comedies, where choruses took the names of animals and gave titles to plays such as *The Frogs*, *The Birds* or *The Wasps*. Nevertheless, for the sake of clarity, it should be specified that in the latter comedy, the wasps are not talking insects but rather symbolic, in that the chorus is a group of judges. Thus, Serpell clearly takes a step forward by choosing 'real' mosquitoes and thus highlights that in her novel, characters cannot interact with the chorus, as happened in many classical works, because they are utterly unaware of their existence – and agency.

Nonetheless, it seems to me that the main comparison between Serpell's novel and classical texts involves the epic poem. Various forms of orality enrich the narration. When mosquitoes do not speak in rhyme – "*the feed has cut, interrupted abrupt*" (Serpell 2020, 562) – they still create sonic phenomena like assonances – "*Pondering this query – who are we really?*" (562). Even characters' speech in English is often transliterated as it is pronounced – "Put your peppas in!" (223) – in a way which is less redolent of the mechanism of Achebe's Nigerian English (Achebe 1997, 348) and more akin to the attention to the sonic dimension that can be found in the written speech of black enslaved people in Frances Harper's *Iola Leroy* – "Dat's jis' what I thinks" (2017) – and Amitav Ghosh's brilliant crafting of the lascars' idiom in *Sea of Poppies* – "Nevva mind: allo same-sem" (2009, 17).

In tracing connections with the epic poem, Serpell gives an important hint by choosing a quote from Virgil's *Aeneid* as the epigraph of her novel – a choice whose potential implications will be examined later. It is precisely in Virgil's oeuvre that a mosquito at the centre of a mock-epic can be found. Included in the *Appendix Vergiliana* and attributed to Virgil, "The Gnat" is a short poem celebrating the courage of a brave mosquito that alerts a sleeping shepherd of the danger posed by a snake slithering nearby:

A tiny nurseling of the moisture first
 Alarms the man, and warns him by its sting
 To shun his death: for where the eyelids were
 Exposing opened eyes and pupils, there
 [...] was struck
 The pupil by its weapon light.
 (Mooney 1916, vv. 275-280)

Instead of gratefulness, though, the mosquito is met only with the shepherd's anger and is killed by him along with the snake. After its death, the ghost of the mosquito comes back to his murderer and

berates him for his insensitivity and lack of gratitude:

While dearer was thy life
 To me than life itself I'm carried off
 By winds through empty space.
 (Mooney 1916, vv. 315-317)

The similarities between Serpell's chorus of mosquitoes and Virgil's gnat are probably more numerous than appears at first sight: the 'errant human' and the phantom image of the gnat will be analysed more in depth in the next section. For now, it is important to underscore the agency of the tiny insects that in Virgil's text makes the difference between life and death for the shepherd, and in Serpell's text leads to a reconsideration of the narrating voices of the epic poem through the evocation of classical models.

3 Post Nature and the Drift of Epic

After gradually introducing controversial technological developments and ultimately the creation of insect-shaped drones, Serpell waits for the novel to end before allowing the mosquitoes to disclose an unsettling piece of information:

It appears that we have a problem. [...] Are we red-blooded beasts or metallic machines? [...] Are we truly man's enemy, *Anopheles gambiae*, or the microdrones Jacob designed? If that's who we are, then this tale has explained our invention. The problem is that we'll still never know because...we've joined up with the local mosquitoes. [...] Half insects, half drones; perhaps all drones or none; maybe something between will emerge. But what a joke! What an error! What a lark indeed! A semi-cyborgian nation! (Serpell 2020, 562)

The mosquitoes' revelation turns out to be a literary application of Jesse Taylor's aforementioned reflections on the unexpected manifestations of nature in the Anthropocene, as well as Timothy Clark's thoughts. In Clark's opinion, "the incalculable interaction of imponderable contaminated, hybrid elements with unpredictable emergent effects" will replace the previous nature/culture distinction (2014, 80). Following Clark's argument on to *The Value of Ecocriticism*, it can be said that evident technological devices are not the only way in which altered nature can present itself to human eyes. In other words, it does not necessarily take a swarm of mosquito drones to frame the concept of post nature; a simple cherry tree is sufficient, like the tree in the poem "Loveliest of Trees" by Housman, which

Clark analyses through the lens of the Anthropocene:

the cherry trees in such a context may not even be the wild cherry [...], but a cultivated form, planted to decorate a 'woodland ride' and celebrated for reliably chiming with a human festival ('Eastertide'). (2019, 35)

In *The Great Derangement*, Amitav Ghosh muses on the moments of recognition of a living otherness as particularly uncanny:

Who can forget those moments when something that seems inanimate turns out to be vitally, even dangerously alive? As, for example, when an arabesque in the pattern of a carpet is revealed to be a dog's tail? (2017, 3)

Expanding on Ghosh's point, it can be said that it would be even more uncanny to realise that something we firmly thought of as 'natural' turned out to be utterly artificial and to have perfectly mimicked its natural referent to the point of tricking our senses. From the Renaissance, the concept of 'simulacrum' - the "*counterfeit*" (Baudrillard 1993, 50; italics in the original) that represents something but is ontologically different - is reactualised in a problematic modern transposition that Serpell's novel forces readers to contemplate. By the end of the story, we are all doubt-riddled readers who are left wondering about the real 'nature' of the flying creatures that have authored an epic - a practical application of the "literary uncertainty" that fascinates Serpell and that she has analysed in Thomas Pinchon and Henry James (Serpell 2008).

It is precisely in the reflections on nature and its appearance in the Anthropocene that *The Old Drift* creatively pulls together crucial strands of ecocritical thought. Mouthpieces for the meaning of altered nature and simultaneously clear examples thereof, the mosquito drones metanarratively outline post natural principles that deconstruct notions of human order and linear progress pitted against nature. Although the drones' preface is devoid of classical invocations, it becomes progressively clear that the aim of their epic is to sing the praises of something specific. More surprisingly, it is manifest that their admiration is not directed towards the characters and their epic endeavours, such as Lee's research to eradicate HIV, Matha's participation in Nkoloso's resistance or the youngest characters' attempt to free Zambians from the noxious control of technology. Of course, in their italicised choruses the drones often comment on the unfolding events of the story and the pivotal actions of some characters. Still, the real subject of their verses is eventually revealed in the following passage, where the insects offer a heretofore un contemplated alternative to man's binary thinking:

there is a third way, a moral you stumbled on, thinking it fatal, a flaw. To err is human, you say with great sadness. But we thinful singers give praise! To the drift, the diversion, that motion of motions! Obey the law of the flaw! If errare humanum est indeed, then it follows that si fallor, sum. [...] When atoms plummet like rain through the void, they deflect [...]. From this swerve, called the clinamen, come collision and cluster, both the binding and fleeing of matter. (Serpell 2020, 543)

The chorus of mosquitoes can be considered 'errant' not only in the sense that it wanders, but also that it extolls the error, the accident, the unexpected and unplanned, picking up and mocking Descartes's famous 'cogito ergo sum' along the way. Upon close observation, their very epic springs from an absolutely accidental event whose consequences ripple across the following generations. Back in colonial times in Zambia, in the settlement called 'the Old Drift,' a feverish man called Percy Clark suddenly struck Pietro Gavuzzi, an Italian hotelier, which in turn led to Gavuzzi's daughter hitting a servant, whose mind was impaired for the rest of his life. This is the original accident of this epic, what in more classical terms would be called Eris's golden apple at the gods' banquet, and, in a more modern (or post-modern) guise, "the explosion of consequences" (McEwan 2004, 17).

The mosquitoes' praise of the error has vital implications in terms of ecocritical theory. In *The Climate of History in a Planetary Age*, the historian Dipesh Chakrabarty affirms that the Anthropocene was not inevitable:

Human civilization surely did not begin on condition that, one day in his history, man would have to shift from wood to coal and from coal to petroleum and gas. [...] there was much historical contingency. (2021, 39)

He then goes on to make a clear example in order to reveal the accidental nature of achievements often laid solely at the door of human ingeniousness:

Take the case of the agricultural revolution [...] of around 11,700 years ago. It was not just an expression of human inventiveness. It was made possible by certain changes in the amount of carbon dioxide in the atmosphere, a certain stability of the climate, and a degree of warming of the planet that followed the end of the Ice Age (the Pleistocene era) - *things over which human beings had no control*. (40; emphasis added)

Although in these passages Chakrabarty is explaining the reason why the concept of species, rather than capitalism, must be adopted

in order to discuss the Anthropocene, this excerpt pairs nicely with the mosquito's praise of contingency, accidents, drifts, as primary tools of nature: "*Evolution forged the entirety of life using only one tool: the mistake...*" (Serpell 2020, 431). Facing post nature involves deconstructing humanity's 'manifest destiny' and acknowledging the favourable conditions and accidents that resulted in beneficial developments.

It cannot be said that the mosquitoes had not warned the readers, though. In their very first chorus, they conclude with words that paraphrase Jeffrey Cohen's affirmation that Nature loves to turn classifying ladders into spirals and that it rather loves a vortex (2015, 2698). Indeed, whenever one seeks an origin,

the path splits, cleaved by apostrophe or dash. The tongue forks, speaks in two ways, which in turn fork and fork into a chaos of capillarity. Where you sought an origin, you find a vast babble which is also a silence: a chasm of smoke, thundering. Blind mouth! (Serpell 2020, 2)

These words touch also on the theme of silence, of voices and tongues telling two different stories, and thus perfectly introduce the theme of colonialism in Zambia.

As Ranajit Guha pointed out, the idea of empire has "something uncanny" (1997, 482) whose traits partly overlap with environmental uncanniness in the monumentality and sheer materiality of the Kariba dam, an ostensible rung of 'progress'. While colonisers reaped benefits from its construction, the local tribe of the Tonga was mercilessly displaced. In 1956, the dam started to be built by the Italian consortium of construction companies Impresit, took almost five years to be completed (Scammacca del Murgo 2021, 72-4) and radically altered the surrounding environment triggering a series of consequences. An example of the "instrumentalization of population dispersal" at the core of colonial governmentality (Quayson 2012, 344), the damming of the Zambezi River wields catastrophic consequences for the Tonga, as well as for local fauna:

They rescued the animals - 'Operation Noah' - then drove the Tonga off in tightly packed lorries. The people were banished from their homes to a land with no marshes, no river. (Serpell 2020, 78)

'Operation Noah' was the name of an initiative to allow the fauna to be saved when the water started to fill the reservoir, while around 57,000 Tonga were forced to leave their ancestral homes (Scammacca del Murgo 2021, 72, 75). As Colson points out, the district officers had experience of travelling from district to district but "had had no experience in moving villagers and had little on which to base

an estimate of what kinds and amounts of goods would be involved" (1971, 43). Even at the level of narrative structure, the dam occupies a key position: it features in the first chapter of the first section and its destruction is the culmination of the novel. Needless to say, the combination of climate change and an error of miscalculation resulted in the flooding: torrential rains had already destabilised the dam and the intervention of a swarm of mosquito drones programmed to block its flue was the tipping point of the situation. While the last generation of characters just wanted to tamper with an obnoxious form of technological control by blocking the dam, they end up causing massive flooding. Even in this case, they underestimated conditions over which they had no control and assumed that their actions were the only ones to possess agency in the environment. The ultimate disruption of the dam and the collapse of its heavy monumentality evidence the failure of a conception of progress based on the exploitation of people and nature, as well as the virtual destruction of the concept of linear progress in the colonial context.

After attacking the conception of linearity in human progress and in colonialism, the mosquitoes then engage in the dismantling of the notion of the *anthropos* in the Anthropocene:

Lee the brave, the bold, the bright. [...]. His ultimate aim is laudable, true: to free mankind of The Virus. But to do it that way, to play chromosomes, is to tinker with Nature's design. Foolish Pandora! Wilful Prometheus! Shirk primal laws at you peril! This is one topic to give us our due: we know far more virology than you do. (Serpell 2020, 375)

Timothy Clark characterises humans who undermine the environmental conditions of their own survival as "zombies" (2014, 86). It is surprising, then, that the very etymology of the word 'zombie' is teased out by the mosquitoes. Although the insects apply the concept to themselves with respect to the transmission of malaria, which they unwittingly carry, the fact that the insects are an expression of the voice of post nature may tie their use of 'zombie' to Clark's ecocritical framework. After all, the difference between mosquitoes and humans is not that big, as the chorus points out: "*We're both useless, ubiquitous species. But while you rule the earth and destroy it for kicks, we loaf about, unsung heroes*" (Serpell 2020, 545).

The voice of the chorus becomes more and more meaningful, especially because it could perfectly become the expression of Zambian wild nature (Monaco 2020, 97) - or, more specifically, post nature, which finds embodiment in swarms of partly artificial, partly flesh-and-blood mosquitoes. In a discussion about the development of consciousness, two characters from the last generation in the novel muse that "if the physical activities of the mind are like insects,

then consciousness is the swarm" [...] (Serpell 2020, 512) and then acknowledge that the swarm of mosquito drones is endowed with consciousness. Serpell disseminates information about the dire and altered condition of the environment during 'the Change,' such as wildly changing weather, torrential rains and sudden inexplicable earthquakes, which also feature at the end of her second novel, *The Furrows*: "A mountain walks, stumbles, then sweeps straight toward us, its ravenous mouth wide open" (2022, 266). It could be that the choruses are not only the voice of mosquitoes, but also the expression of the consciousness of a post nature ravaged by climate change.

4 Conclusion: A Disjointed Simulacrum of Nature

In the conclusion of this paper, it seems important to come full circle and make one last reflection on the very beginning of *The Old Drift*: not the first mosquito chorus, but the epigraph. Since the peritext is an important element located at the threshold of the text (Allen 2022, 100), one cannot help but reflect on the excerpt from Seamus Heaney's translation of book VI of the *Aeneid*:

Meanwhile, at the far end of a valley, Aeneas saw
A remote grove, bushy rustling thickets,
And the river Lethe somnolently flowing,
Lapping those peaceful haunts along its banks.
Here a hovering multitude, innumerable
Nations and gathered clans, kept the fields
Humming with life, like bees in meadows
On a clear summer day alighting on pied flowers
And wafting in mazy swarms around white lilies.
Aeneas startled at this unexpected sight
And in his bewilderment asked what was happening,
What was the river drifting past beyond them,
Who were the ones in such a populous throng
Beside it?
'Spirits,' Anchises answered.
(Heaney 2019, 38, book 6, vv. 945-59)

In this particular passage, Aeneas has descended into Hades's realm and is talking with the shade of his late father, so as to gain insights on the process that the souls who are waiting in the Elysian Fields have to go through before being allowed to reincarnate. In his palimpsestic reading of Serpell's novel, Angelo Monaco has interestingly argued that this intertextual reference brings to the fore the epic scale of the novel and the fact that River Lethe symbolises oblivion (2020, 96). As interesting as this interpretation might be, I would put forward an alternative

one which is closely entwined with Clark's reflections on post nature and the ecocritical application of the concept of 'simulacrum'.

It catches my attention that, in the *Aeneid*, the souls of the deceased are compared to a 'hovering multitude' and then to a swarm of bees, given the prominence that mosquitoes have in Serpell's novel. As underlined before, the mosquito drones perfectly exemplify the concept of post nature, not only inasmuch as they embody in the very fibres of their being the collapse of the flimsy distinction between nature and culture, but also in that they are cyborg mosquitoes which imitate flesh and blood insects. They can therefore be considered simulacra of mosquitoes as we normally intend them. On another level, the image of the Elysian Fields in which Anchises's soul lingers with many others offers an otherworldly representation of a pastoral *locus amoenus*:

They came into happy vistas and the green welcome
Of the Groves of the Fortunate Ones who dwell in joy.
Here a more spacious air sheds brightness
Over the land.
(Heaney 2019, 35, book 6, vv. 867-70)

To go back to Jesse Taylor's aforementioned quotation, nature is unlikely to manifest itself in this romantic guise in the Anthropocene, and it has probably never been so, notwithstanding its pastoral idealisation, a tendency which remained strong throughout the centuries: Buell stressed that even some early environmental writers romanticised rurality through "prettifying palliatives" that concealed transformations carried out by economic and class interests (2005, 14). Similar but slightly different to the cyborg mosquitoes, the Elysian Fields are a disjointed simulacrum of nature not only because they are otherworldly and belong to another incorporeal dimension, but also because in the Anthropocene they no longer represent their referent faithfully. While the mosquito drones perfectly mimic nature but then turn out to be ontologically different from 'natural' mosquitoes, the otherworldly Elysian Fields depict an image of nature, but they become a disjointed simulacrum in the Anthropocene, in that their referent has been considerably altered. When Virgil wrote the *Aeneid* his representation of a verdant nature could have been adherent to reality, but the passing of time has made it unfaithful to a referent that has been altered through the centuries. Therefore, it seems that Serpell employs a chiasmic structure to doubly highlight the uniqueness and paradoxes of post nature.

In my analysis, I have tried to demonstrate the extent to which Serpell's epic expands on ecocritical principles illustrated by scholars such as Timothy Clark, Jesse Taylor and Dipesh Chakrabarty. *The Old Drift* is peppered with classical references, and it becomes clear that the writer has managed to fashion an epic for modern times, by

carefully choosing other narrating voices, by de-centring the role of humans in history and by singing the praises of error. Post nature, scepticism towards linearity and acknowledgement of nonhuman agency are dealt with by the author through elliptical revelations disclosed at intervals by the chorus of mosquitoes. Gradually, readers realise that the voice of the chorus consists of a swarm of mosquitoes, then are faced with the nagging doubt that the insects may not be wholly flesh-and-blood and lastly that their voice might express something higher, such as the voice of post nature and climate change itself.

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An Avian-Aquapelagic Heritage at “the Edge of the World” Reflections on Humans and Seabirds on St Kilda and the Arrival of HPAIV

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Abstract The concept of the *aquapelago* was introduced into Island Studies in 2012 to identify the close integration of aquatic and terrestrial realms that can arise from human livelihood activities conducted within them. While many aspects of aquapelagos have subsequently been described and analysed, little attention has been extended to their interface with aerial and, particularly, avian domains. This article attempts to redress this through a consideration of human livelihood activities involving seabirds in St Kilda, an isolated group of islands to the west of Scotland’s Outer Hebrides. Using the concept of the aquapelago as a starting point, the article considers various aspects of human-avian relations occurring on St Kilda, and UNESCO’s subsequent designation of the islands as a World Heritage site and intersperses this with the author’s personal experiences of and affective engagements with the islands. In particular, the latter part of the article develops the author’s field notes from a visit in Summer 2022 into a consideration of the limits of isolation occasioned by the presence of the H5N1 strain of HPAIV (Highly Pathogenic Avian Influenza Virus) on St Kilda at that time. The viral colonisation of the bird colonies undermined any sense of St Kilda and similar remote locations being safely isolated refugia and, indeed, signalled a particularly precarious moment of Anthropocene connectivity between mainlands and islands.

Keywords Human-seabird relations. St Kilda. Avian aspects of aquapelagos. Interspecies relations. HPAIV.

Summary 1 Introduction. – 2 St Kilda. – 3 Envisaging St Kilda. – 4 Reaching St Kilda – July 2022. – 5 Reflection.



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1 Introduction

The concept of the aquapelago was introduced into Island Studies discourse in 2012 to refer to terrestrial and marine territories integrated by human livelihood activities (Hayward 2012a; 2012b; Suwa 2012). The concept gained traction and has been applied to a variety of socio-economic, cultural, legal and political aspects of island, coastal and maritime topics (*Shima* 2024). Echoing Epeli Hau’ofa’s concept of the Pacific as a “sea of islands” (1994), much research has concerned the manner in which aquatic depths and surfaces have become implicated into the core livelihood activities of shore-based human societies. Two key aspects of aquapelagos identified by the aforementioned 2012 papers were: a) their nature as assemblages of human and non-human elements within terrestrial and aquatic interzones, and b), their temporal dimension as performed entities that

wax and wane as climate patterns alter and as human socio-economic organisations, technologies, and/or the resources and trade systems they rely on, change and develop. (Hayward 2012a, 7)

Jane Bennett’s pioneering volume *Vibrant Matter* (2010) was a key influence on development of the concept of aquapelagos in that they were conceived as what she terms environmental “fields” composed of both living and inanimate entities that can be activated in various ways. As she emphasises, these entities are complex in that their

differentiations are too protean and diverse to coincide exclusively with the philosophical categories of life, matter, mental, environmental. The consistency of the field is more uneven than that: portions congeal into bodies, but not in a way that makes any one type the privileged site of agency. The source of effects is, rather, always an ontologically diverse assemblage of energies and bodies, of simple and complex bodies, of the physical and the physiological. (117)

Fishing, fisheries and related delineations and administrations of marine regions and resources have provided obvious and fruitful topics for aquapelagic analysis and discussion (Fleury 2013; Evans, Harris 2018) but conceptual explorations of aquapelagos have largely bypassed their intersection with the aerial, only exploring this with regard to issues such as the obscured visibility of islands caused by humidity, haze, mists and clouds (Vale 2017) or the mythologisation of marine mirages (Hodges 2022). One topic overdue for scrutiny is the nature of aquapelagos in which seabirds are key nutritional and/or economic resources for human societies. The aerial domain, in such contexts, can also be considered as an avian one in that the skies

facilitate seabirds’ access to the seas and to the fish protein within them vital for their survival. This access also enables seabirds to roost and breed on islands and coastlines in manners that make them (and their eggs) vulnerable to human harvesting. The omission of this topic from Island Studies literature is, in large part, due to the limited (and highly localised) role that seabirds and their eggs play in contemporary human food gathering and cuisine. But, as this article illustrates, there are contexts in which seabirds have been a crucial resource and livelihood orientation for human societies and, in these, the aerial domain can be seen to have been an essential element in a triangular (land-sea-air) space that adds a third dimension to the aquapelagic. Given that humans have largely not taken to the air in pursuit of seabirds (or other fowl), the aerial domain remains the birds’ alone and the crucial inter-species interactions of dependent societies have occurred on the edges of terrestrial spaces, in St Kilda’s case, on cliffs.

The approach I pursue in this essay (and in its autoethnographic filaments, in particular) fundamentally derives from James Clifford’s “Fort Ross Reflection” (1997), an essay that reflects on human resource networking in northern California, and the Pacific North-West more generally. In an interview with Alex Coles about site specificity and research, Clifford emphasised that the materiality of locations such as Fort Ross is “unfinished”, in the same way that maps and histories of them are, and that their complexity results from the intersection of transnational flows and the resultant “making and remaking of cultures and places” (Coles 2000). I adhere to this approach and I have also taken inspiration from the “trans-species” turn in cultural anthropology best represented by the work of Donna Haraway and Anna Tsing. It is also notable that these theorists have recognised the significance of islands to the critical issues their work explores. Indeed, Pugh and Chandler have characterised Haraway’s and Tsing’s focus on “relational entanglements” and the “feedback effects” apparent on islands as highlighting the manner in which “co-shaping of species or sympoiesis” can be understood to be “key characteristics of island life” (81). This characterisation is equally applicable to my approach in the discussions that follow.

While Haraway provided the notable characterisation of inter-species’ interactions as a “contact zone” (2008, 244), many of the ideas I am concerned to explore were best articulated in Tsing’s justly acclaimed *The Mushroom at the End of the World* (2015). In her concise introduction to that volume (suitably entitled “Enabling Entanglements”), Tsing characterised that mainstream academic research has been deficient in that it has been left to “fabulists, including non-Western and non-civilizational storytellers, to remind us of the lively activities of all beings human and not human” (2015, VII). Expanding on this, she characterised that

interspecies entanglements that once seemed the stuff of fables are now materials for serious discussion amongst biologists and ecologists, who show how life requires the interplay of many kinds of beings. (VII)

Haraway took this one stage further in her 2016 volume *Staying with the trouble*, calling for a new era (which she terms the “Chthulucene”) in which humans are decentered from world visions and sensibilities in favour of a cross-species “kinship”. This can be understood in various ways, broadly (and mutually) as inter-species’ alliance and/or empathy and, more specifically, as a critical stance and moral imperative for researchers. One outcome of such reflections has been the development of what has been termed “multispecies ethnography”. While the term is problematic in that only one species produces formal ethnography,¹ it is a distinct and provocative development. Surveying its emergence, Kirksey and Helmreich have characterised it as a “new genre of writing and mode of research” and have contended that:

Creatures previously appearing on the margins of anthropology - as part of the landscape, as food for humans, as symbols - have been pressed into the foreground in recent ethnographies. Animals, plants, fungi, and microbes once confined in anthropological accounts to the realm of zoe or “bare life” - that which is killable - have started to appear alongside humans in the realm of bios, with legibly biographical and political lives. (2010, 545)

As the authors note, microbes are a legitimate subject for multispecies ethnography. One significant approach to this - sociovirology - has been outlined by Díaz-Muñoz et al. (2017). Their concept describes and conceptualises patterns of conflict, cooperation and communication among viruses. In something of a parallel to Tsing’s rejection of views of the natural world and its elements as being “passive and mechanical” (2015, VII), and of viruses being conceived as comprising undifferentiated, monolithic masses, the authors identify that viruses can have their own social crises in a manner that is “analogous to the tragedy of the commons in humans, where cooperation breaks down due to selfish interests, even though everyone could do better in the long run by cooperating” (Díaz-Muñoz et al. 2017, 428). Such weaknesses in the collective fabric of microbial life are precisely the points where human ethnography might gain maximum purchase on

¹ While Paxson (2010) may be correct in identifying that animals may have anthropologic sensibilities with regard to observing the behaviour of humans who impinge on their existence, the extent of their ethnography has yet to be assessed.

the viral other, recognising a likeness in an unexpected place.

Similarly, the study of viruses can be insightful in other ways. Meyer (2020) reflected on the significance of COVID-19 to ways of comprehending the world and borrowed a trope from Haraway to characterise that:

the virus is also “good to think with” as it alerts us to the so far widely neglected fact that infection is part and parcel of global entanglements, implying the precariousness of corporeal boundaries and the permeability of the self. Far from being secluded, buffered monads that stand above and are able to master the world, as the ideology of the modern self suggests, we are relational, permeable beings. As such, as the spread of the virus painfully reminds us, we are affected by forces we cannot see with our naked eyes nor fully control... (Meyer 2020)

We might also add that microbes, more generally, are “good to think with” regard to an overarching factor, namely the anthropology of *the* (i.e., *the global*) crisis and all manner of fractal crises that are manifest at local levels. COVID-19 caused a crisis for humans and HPAIV caused a crisis for birds, but it should be remembered that crisis is, increasingly, the defining aspect of the Anthropocene.

In what follows I try to “think with” both seabirds and viruses in addressing the integrated aerial and aquapelagic system of St Kilda during both its inhabited and minimally inhabited phases. The perspectives I have sketched above are expansive and they implicitly challenge researchers to contemplate, identify and articulate their position within them. One response is to acknowledge simple factors that facilitate interest, engagement and inquiry into phenomena. Shifting from high-stakes theory into elements of autoethnography, I’ll start by declaring an “entanglement” with my topic in that I have had a long-term interest in seabirds, their colonies, the dependence of these on fish stocks and human engagements with them. While I am neither an ornithologist nor an obsessive birdwatcher, I have been lucky enough to pursue my interest when my professional and personal travels have brought me close to suitable coastal locations. Indeed, the discussion advanced in this article was catalysed by two such visits, the most recent, to St Kilda, that I reflect upon below, and an earlier one, to Bay Bulls and Witless Bay, on the south-east coast of Newfoundland, in 2003.² Newfoundland (and the aforementioned

2 It is becoming an increasing expectation that researchers should identify the circumstances and/or enabling agencies that deliver them to the field. In the interests of full disclosure, I travelled from Sydney (Australia) to St John’s (Newfoundland) for a job interview at Memorial University and my excursion to the Avalon was a welcome addition to the travel they arranged for me (especially since I didn’t get offered the position).

areas in particular) are a mecca for seabird watchers, with nutrient rich waters supporting fish stocks capable of sustaining millions of seabirds. Pre-HPAIV figures identified 24,000 breeding pairs of Northern Gannets (*Morus bassanus*), 260,000 pairs of Atlantic Puffins (*Fratercula arctica*) and 620,000 pairs of Leach’s petrels (*Hydrobates leucorhous*) as present in the area (Newfoundland & Labrador n.d.)

In my diary entry concerning Bay Bulls I wrote the word “plenty” and underlined it several times. I recall various sensory impressions from my visit: the stench of guano as our boat came close to crowded cliffs, the whiteness of both guano and birds upon those cliffs, the fullness of the sky above us as birds wheeled and squawked, hats worn to protect visitors from guano splashes and the wet, smelly, whiteness of my shoulder after I sustained a direct hit. There was a real sense of the locale being outside of the human realm, as being an arena for other species in a place where human intervention had not depleted biomass. The latter sense is particularly ironic since the waters of the area were once teeming with cod (*Gadus morhua*) which are now all but exhausted through over-fishing. I came to St Kilda familiar with descriptions of the similar density of its bird life and expecting equally striking natural grandeur. In the event, these expectations proved problematic.

2 St Kilda

St Kilda [fig. 1] comprises four main islands – Hirta, Dun, Soay and Borerary – together with a number of sea stacks and small rocky islets [fig. 2]. Hirta is the largest of the group, covering 670 hectares, and comprises approximately 78% of the archipelago’s total land area of 850 hectares [fig. 3]. The archipelago is located 65 kms to the west of the Outer Hebrides, 180 kms west of the nearest part of mainland Scotland and 290 kilometres north of Ireland. One of the most enduring characterisations of the archipelago is its remoteness, being the most westerly point of Scotland, separated from the Outer Hebrides by an often unpredictable and stormy section of the northwest Atlantic. The islands were gifted to the National Trust for Scotland in 1956 and became a UNESCO World Heritage (WH) site in 1986 on the strength of their natural and cultural aspects, with the WH status extended in 2004 to include St Kilda’s marine environment and again in 2005, to include its cultural landscape and material artefacts. One of its most prominent natural assets is its population of seabirds. Estimates of their number have varied (as, indeed, the population has) but a 2021 overview identified that there were over 100,000 breeding pairs of Atlantic Puffins (*Fratercula arctica*) nesting on Dun and 60,000 pairs of Northern Gannets (*Morus bassanus*) nesting on Borerary,



Figure 1 Map of St Kilda archipelago with inset map showing St Kilda (indicated by red square) in relation to the Outer Hebrides and mainland Scotland. Courtesy of Bernd Rhormann

Stac an Armin and Stac Lee. Other birds present in the islands include Northern Fulmars (*Fulmarus glacialis*), Shearwaters (*Puffinus puffinus*), European Shags (*Phalacrocorax aristotelis*) (Roels 2021) and Great Skuas (*Stercorarius skua*), an increasingly rare species whose global population is around 15,000, with an estimated 300 breeding pairs in the archipelago.

Hirta appears to have been populated for over 2000 years, with its primary settlement at Village Bay [fig. 3]. Boreray also supported a small village at one time and there is evidence of Dùn and Soay having been regularly visited and/or stayed on for short periods (Ballin Smith 2021). The archipelago’s population appears to have peaked at around 200 in the seventeenth century and declined to 36 inhabitants in 1930, immediately prior to its abandonment. The earliest account of the islanders, their habits and diet was provided by Martin Martin (1999). Visiting the islands in the



Figure 2 September 2022. (Left to right) The north-western edge of Boreray, An t-Sail, Stac Lee and Stac An Armin (with Hirta in the distance). Author's photo

mid-1690s, he identified the islanders' reliance on gannets³ which he described as visiting the archipelago in a “prodigious number” between March and September each year. He detailed that the islanders killed over twenty thousand “young and old” gannets annually and kept these in small, stone buildings (known as *cleitean*) using peat ash as a preservative and eating their flesh and eggs as the staple element of their diet (1999, 171). One important point about the Hirta islanders' exploitation of gannet produce is that the gannets did not nest on Hirta itself but, rather, aggregated on the steep sided Boreray [fig. 4] and the two rugged stacks, An Armin and Lee [fig. 2]. The capture and killing of gannets and the collection of their eggs thereby required precarious marine transit between Hirta and

3 Which he referred to as “solan geese”.



Figure 3 September 2022. Hirta's historic Village Bay site (centre left of image) and Oiseval headland (top right of image). Author's photo

gathering sites and – given the lack of any convenient landing spots anywhere aside from Hirta – men had to scramble from boats onto steep, wet slopes and climb up to nest areas, often in inhospitable conditions. Once on the slopes they minimised vertical movements and threw bird carcasses down to waiting boats and lowered eggs down more carefully.

Details of local diet suggest the sheer volume of gannets in the area, an aspect vividly described by Martin on his return to the islands in 1698. Approaching a stack in a boat, he observed that it was covered with a “prodigious number... hatching in their nests; the heavens darkened by those flying above our heads” and he noted that “their excrements were in such quantity, that they gave a tincture to the sea, and at the same time sullied our boat” (1999, 239). Martin also identified that fulmar and puffin were also standard food items and that fulmar were additionally useful on account of the stomach oil



Figure 4 September 2022. Boreray. Author's photo

that spouted from their bills when disturbed,⁴ which the islanders used for medicinal purposes and as lamp oil (1999, 172-3).

Martin also detailed aspects of local seabirds' interactions with humans. In one passage, for instance, he describes how the gannets:

have always some of their number that keep sentinel in the night-time, and if they are surprised, (as it often happens) all that flock are taken one after another; but if the sentinel be awake at the approach of the creeping fowlers, and hear a noise, it cries softly, 'grog, grog', at which the flock move not; but if this sentinel see or hear the fowler approaching, it cries quickly, 'bir, bir', which would seem to import danger, since immediately after, all the tribe take wing, leaving the fowler empty on the rock, to return home re infecto, all its labour for that night having been spent in vain. (1999, 254-5)

⁴ See Imber 1976 for discussion.

Along with white tailed sea eagles (*Haliaeetus albicilla* – the fourth largest eagle species in the world),⁵ Eurasian sparrowhawks (*Accipiter nisus*) and Great Skuas (*Stercorarius skua*) that might prey on eggs or fledglings, the sentinels were principally concerned to guard against human raiders and, in all likelihood, developed some sensitivity to their patterns of approach and behaviour. One of most vivid passages in Martin’s account describes the nature and precarity of the fowlers’ activities and the manner in which fowling was inculcated to boys from an early age:

The inhabitants, I must tell you, run no small danger in the quest of the fowl and eggs, insomuch that I fear it would be thought an hyperbole to relate the inaccessibleness, steepness, and height, of those formidable rocks which they venture to climb. I myself have seen some of them climb up the corner of a rock with their backs to it, making only use of their heels and elbows, without any other assistance; and they have this way acquired a dexterity in climbing beyond any I ever saw; necessity has made them apply themselves to this, and custom has perfected them in it; so that it is become familiar to them almost from their cradles; the young boys of three years old being to climb the walls of their houses; their frequent discourses of climbing, together with the fatal end of several in the exercise of it, is the same to them as fighting and killing is with soldiers, and so is become as familiar and less formidable to them, than otherwise it certainly it would be. (1999, 272)

Other descriptions were even more vivid, with Seton noting how fowling on the tiny, steep Stac Briorach was regarded as “the crucial test of a fowler’s pluck” and a crucial proof of a single male’s marital value, and describing how when the fowlers ascended to the summit, “they committed great havoc amongst the unsuspecting fulmars, tying them in large bundles, and flinging them into the sea, which was crimsoned with blood” (1878, 200). In the early 1800s, at least, women also went fowling on occasion, with a Mr Sands recording details of women travelling to gather puffins on Boreray and staying for three-week durations (201).

I discuss these aspects at length because the interaction between humans and seabirds, and the marine and terrestrial features the fowlers had to negotiate to reach them, was a defining element of St Kildans’ livelihoods (and, indeed, survival). Their relationship with seabirds was both profound and predatory. Some sense of the centrality of seabirds to the everyday experience and culture of the islanders can be gleaned from the account of a visitor to the archipelago in 1824:

5 Which has been extinct in Scotland since the 1920s.

The air is full of feathered animals, the sea is covered with them, the houses are ornamented by them, the ground is speckled with them like a flowery meadow in May. The town is paved with feathers, the very dunghills are made of feathers, the ploughed land seems as if it had been sown with feathers, and the inhabitants look as if they had been all tarred and feathered, for their hair is full of feathers, and their clothes are covered with feathers. The women look like feathered Mercuries, for their shoes are made of a gannet’s skin; everything smells of feathers... (Macculloch 1824, 195-6)

If we take this description at face value, it suggests an unusually close and intense human reliance on the nutritional and material aspects of seabirds, one that required humans to be steeped in avian culture and finely tuned to avian behaviours. Indeed, in a colourful line of speculation, Macculloch fantasised an organic academy taking root on Hirta within which locals might draw on their detailed knowledge to produce “learned papers on the winds, and on the laws of the Gannets, and on the gravity of feathers” (1824, 187).

Several visitors sought to characterise the highly distinct soundscape provided by seabirds around the islands. Seton (1878, 160-1) quotes a lengthy passage in which John Macculloch (1824), visiting the islands around 1815, characterised the aggregation of everyday seabird song as an “orchestra”, and noted that:

the variety of tones was far beyond my power of analysis... yet it is a combination of sounds to which a musician will listen with interest and delight... Few of the notes in this concert could perhaps have been referred to the scale, if separately examined; yet the harmony was often as full and perfect as if it had been the produce of well-tuned instruments, and the effect was infinitely superior to that which is often heard in a spring morning among the singing birds of the forest... however inferior in variety or sweetness the notes of the individuals may be, there is much more variety in the harmonious combinations, and in that which musicians would call the contrivance and design. Very often they remind me of some of the ancient religious compositions, which consist of a perpetual succession of fugue and imitation on a few simple notes; and sometimes it appeared as if different orchestras were taking up the same phrases.

The comparison of aspects of human melody, music composition and performance to a combination of natural elements in a local soundscape may be an example of external observers reading-in similarities but is also an aspect detailed by anthropologists and ethnomusicologists in other isolated locales, most notably by Steven Feld in

his research on the soundscapes experienced and articulated by the Kaluli people of the Papua New Guinean Highlands (1990; 1991). In the latter locale, birdsong provided key sonic markers of space and of experience of space that profoundly affected human sonic communication, sensibility, senses of belonging and musical performance styles. While the Kaluli’s strong cosmological identification with birds is unusual, Feld has identified two aspects key to avian-reliant societies: a) the sound-based knowledge of space and time that derives from observation of seasonal activities, calls, nesting, and migrations; and b) the capacity of humans and their sound-making to recall, reflect, imitate, or, in some way evoke the world as observed and lived in as participant (personal communication, January 2024). External accounts, such as those quoted above, suggest that these two aspects were present in St Kilda.

While public musical performances were suppressed following the adoption of an austere form of Christianity on the islands in 1865, when the Reverend John Mackay arrived, songs and singing were prominent on Hirta prior to then (Seton 1878, 279-80), albeit being described by visitors as “weird” and “eerie” (280). While no notation of sung melodies or field recordings of islanders singing were made before the evacuation of the islands, there are indications that bird song affected singing style. One visitor, for instance, contended that the refrain to a song mourning the loss of a son during fowling (known under the English language title of *The Mother’s Lament*) was “manifestly an imitation, consciously or unconsciously, of the loud discordant clamour of a flock of sea-fowl over a shoal of fish” (280). Translations of the song’s lyrics also suggest such close associations, verse 2 proclaiming the virtues of “well feathered pillows” and “sweet” cooked fulmars’ eggs as examples of the islands’ “bounteous... store from the rock and the billow”, before asking the listener to “Hark to the fulmar and the guillemot screaming/Hark to the kittiwake, puffin and gull, O!”.

The Tobar an Dualchais online archive (based in Skye) includes two recordings of what it identifies as unaccompanied St Kildan songs by performers recorded in the 1950s and 1960s whose lyrics refer to hunting seabirds,⁶ the second of which is sung from the perspective of a woman who complaining about a young man who pays her attention but does not bring her eggs. The song is referred to by the vocable phrase of its chorus, “Hion dail-a horo hì hò hion dail-a là”, which opens the track and is subsequently repeated.⁷ Its ornate melodic

⁶ Online holdings SA1958.055.B1 and SA1961.72.A7.

⁷ Gaelic music scholar Heather Sparling identifies that “vocables in a chorus (and as song title) are quite common in Gaelic song, particularly of women’s songs” (personal communication 07-01-2024).

structure and the rising 4th interval early in the song are highly evocative of birdsong but not of the seabirds staple to St Kildans’ livelihoods but rather of the variety of songbirds that also frequent Hirta (such as types of bunting [*Emberiza*], warblers [*Sylvoide*] and the endemic island wren (*Troglodytes troglodytes hirtensis*).⁸ If the song’s attribution is correct,⁹ the melody might be interpreted as reflecting elements of an acoustic world more familiar to St Kilda’s women, who were more Hirta-bound than the men involved in fowling on off-shore islands.

One bird with a more problematic relationship to island culture was that of the Great Auk (*Pinguinus impennis*). The large, flightless, penguin-like seabird lived in various North Atlantic locations before coming extinct in the mid-1800s after its numbers had been severely depleted as a result of it being killed to gather its feathers, which were used as down in pillows and bedding, leading the British Government to ban hunting for this purpose in 1794. There is no evidence that the bird was ever present in significant numbers in St Kilda and by the 1840s it seems to have been perceived as an alien species. In this context, the islanders’ awareness of and interaction with a specimen illustrates an alternative aspect of islanders’ imagination of birds within a distinctly pre-Modern sensibility. Various accounts discussed in detail by Fleming (2024) describe the ritual killing of a Great Auk on Stac An Armin by islanders around 1840 on the grounds that it was a malevolent entity and, possibly, a witch transfigured into avian form. Being constrained before its execution, it was reported to have emitted what were variously described as “hideous noises” and “wild, hoarse, despairing cries” (Fleming 2024, 30-1). This is the last recorded sighting of a Great Auk in St Kilda and, indeed, one of the last globally. Another bird with supernatural associations on Hirta was the cuckoo (*Cuculus canorus*),¹⁰ a highly infrequent visitor perceived as the harbinger of tragedy. Swire (1952, 106) details that a ship despatched to St Kilda from Skye to announce the death of the islanders’ laird found that the islanders had already apprehended this due to the previous arrival of a cuckoo.

As the above passages suggest, St Kilda was perceived by a series of visitors as a place distinctly apart from the British mainland, one in which self-reliance, fortitude and efficient use of natural (and

8 For information on the variety of songbirds recently observed on St Kilda, see: <https://www.outerhebridesbirds.org.uk/index.php?tags/st-kilda/>.

9 A version on the Altandubh YouTube channel (which is accompanied by the English language translation I refer to) has a note that is much less certain about the song’s source, stating that it “may have some connection with the depopulated island of St Kilda”. It nevertheless uses the word *cleite* in a bracketed subtitle, the St Kildan Gaelic dialect term for stone huts used to store gannet eggs and meat.

10 Thanks to Jeremy Harte for alerting me to this.

especially avian) resources were key to the social fabric and character of the community, at least until its population began dwindling in the mid-1800s. At this juncture, increasing contact with off-islanders and awareness of the lifestyle and opportunities available on the mainland, and in more remote territories (such as Australia)¹¹, led to increasing numbers of young people migrating in search of more comfortable ways of living. By 1930, the 36 residents who remained decided to depart *en masse* to the Scottish mainland following a series of disease outbreaks and food shortages, breaking centuries old traditions, acoustemologies and experiences of place.

3 Envisaging St Kilda

Even before I became embroiled in Island Studies some twenty years ago, I regarded St Kilda as an iconic location on account of its isolated position and the tale of its inhabitants’ voluntary exodus. Indeed, the ‘lost world’ of St Kilda’s human occupancy continues to haunt perceptions of its present. The depopulation is implicitly regarded as having created a lack, in the sense of the ‘present absence’ of the prior population lingering over Hirta. The population has not simply gone – leaving the island to nature (imagined as sphere without humans) – but, rather, its traces in remnant buildings and field boundaries are spectral in that they flag human absence and make this one of the key characteristics of the locale. The last island-born inhabitants are now deceased. Their offspring have largely integrated into Scottish and other societies and do not constitute an expatriate culture that dwells on and seeks consultation and/or decision-making input on the fate of the islands in the same manner as those indigenes elsewhere who have sought to represent or repossess ancestral lands. It has largely been left to its birds, who have been able to rest and nest somewhat easier since Hirta’s humans departed. The latter aspect is salient. In his rich and evocative reflections on the decline of arctic tern numbers on Papa Westray island in Orkney and human perceptions and senses of loss around these, Newman (2024) identifies Papa Westray as a site of “more-than-human memory that emerges from the myriad sentient geographies that intertwine in the relational complexity of its ecology” creating a “manifold... sense of absence”. He characterises this as a *spectral more-than*, a term that he uses to capture “something of the entangled complexity of ecology, and the emphasis it gives to relations as central to worldly becoming”. While his focus is on the diminution

11 Thirty-six St Kildans were transported to Australia in 1872, aided by the Highland and Island Emigration Society. Nineteen died in transit, due to exposure to diseases such as measles, which they had no immunity to (Richards 1992).

and/or absence of bird species on his subject island, we can expand it, in the context of St Kilda, to also express the poignant *spectral more-than* of its departed humans and their entanglement with the complex environment of their aquapelago.

The islanders’ decision to abandon their island home brought national attention to a hitherto obscure locale. Media coverage of the event piqued the interest of English filmmaker Michael Powell, who went on to write a scenario representing the final phase of inhabitation and of evacuation under the title *The Edge of the World*. Keen to shoot his film in situ, Powell approached St Kilda’s new owner, John Crichton-Stuart, in 1937, promising that the film project would bring human presence and employment opportunities back to the island. This proposal was, however, at odds with Crichton-Stuart’s vision for St Kilda. A keen amateur ornithologist, Crichton-Stuart purchased the islands in 1931 to preserve them as a seabird sanctuary. In this, he was following a Victorian tradition of British landowners establishing private bird sanctuaries.¹² Seabirds became a particular focus for conservationists in the 1860s when seabird feathers became a prized component of women’s hats, resulting in a rapid increase in seabird capture. Following lobbying by conservationists, the British government passed the *Sea Birds Protection Act* in 1869, which was ambitious in scope but almost impossible to implement,¹³ and demand for seabird feathers continued to rise in the late nineteenth century. By the early twentieth century, campaigns began to diminish the trade, with legislation such as the 1896 *Wild Bird Protection Act* giving county councils the right to apply for protection orders over particular species and/or areas. The Royal Society for the Protection of Birds (RSPB), formed in 1889,¹⁴ played a leading role in this campaign and also established its first reserve on Romney Marsh, in southeastern England, in 1928.¹⁵ Crichton-Stuart’s entry into this arena completely reversed the approach to avian resources that had operated on St Kilda during its inhabited period and, instead, allowed its avian population to rebuild with only occasional summer visits from him and invited guests.

Rebuffed by its owner, Powell eventually had to find an alternative, with Foula, in the Shetland Islands, being chosen on account of its similarly soaring high cliffs and colonies of seabirds. In one sense

12 The first case of which occurred in 1813 when landowner Charles Waterton turned his Yorkshire estate into a wild bird haven.

13 An amendment to the Bill passed in the House of Lords before the Act was passed specifically exempted St Kilda from the Act (Hansard 1869).

14 Initially the Society for the Protection of Birds, it gained its royal charter in 1904.

15 See Bassett 1980 for further reading about early British bird conservation initiatives.

the substitution was of limited importance, as Powell was attempting to relate the *story* of the circumstances that led St Kildans to choose to evacuate, rather than produce an audio-visual representation of the actual islands. In these regards, the film’s representation of intrepid islanders scaling imposing cliffs in search of seabird eggs gave some insight into the similar enterprise of St Kildans prior to their evacuation. Crichton-Stuart retained ownership of the islands until 1956, when he bequeathed them to the Scottish National Trust, who maintained them as a National Scenic Area, National Nature Reserve and site of Special Scientific Interest under the relevant national legislations. In 1985 The UK Government successfully sought recognition of St Kilda as a WH site on account of both its natural and cultural assets. The natural assets were identified as germane to the planet’s “evolutionary history”, providing an example of “remote island ecological colonization and development in isolation”, “superlative natural features”, and “habitats of rare and endangered species” (such as the island’s “impressive sea-bird colonies”) (UNESCO 1985, 74-5). The island’s cultural assets were identified as significant under criterion 5, as

an outstanding example of a traditional human settlement, land-use, or sea-use which is representative of a culture (or cultures), or human interaction with the environment especially when it has become vulnerable under the impact of irreversible change.¹⁶

Accounts of St Kilda during its populated era stressed the terrestrial aspect of the islands and the birds that congregated on them, largely overlooking the surrounding ocean that nurtured the fish stocks that fed the seabirds and, hence, the humans. The birds were undoubtedly aware of the oceanic domain as they plunged into it for fish protein and the human population would also have been cognisant of this, but it was not until the UNESCO WH status was extended to the seas around St Kilda in 2004 that this aquapelagic aspect was formally acknowledged through UNESCO’s *Criterion (ix)* designation:

St Kilda is unique in the very high bird densities that occur in a relatively small area, which is conditioned by the complex and different ecological niches existing in the site. There is also a complex ecological dynamic in the three marine zones present in the site that is essential to the maintenance of both marine and terrestrial biodiversity. (UNESCO World Heritage Convention 1986, 2004, 2005)

¹⁶ See UNESCO WH criteria as itemised at: <https://whc.unesco.org/en/criteria/>.

More poetically, the preamble to St Kilda’s 2004 UNESCO listing introduced an aesthetic dimension and rhapsodised over the locale’s scenic beauty and ecological complexity:

The combination of oceanic influences (proximity of deep ocean currents along the continental slope, extreme exposure to waves and oceanic swell, high water clarity) and local geology around the archipelago has created a marine environment of unparalleled richness and colour. The seabed communities are outstanding in terms of biodiversity and composition, including ‘northern’ and ‘southern’ species at the extremes of their range. The plunging underwater rock faces are festooned with sea life – a kaleidoscope of colour and form kept in constant motion by the Atlantic swell, creating an underwater landscape of breathtaking beauty. The complex ecological dynamic in the marine environment is essential to maintenance of both the terrestrial and marine biodiversity. (UNESCO World Heritage Convention 1986, 2004, 2005)

4 Reaching St Kilda – July 2022

Powell’s opening prologue to *The Edge of the World*, set on the prow of a boat approaching (what its narrative introduced as) ‘Hirta’, made quite an impression on me when I first saw the film in 1983, and I aspired to a similar experience of the (actual) island. Indeed, I looked into options of visiting St Kilda several times in the mid-1980s, but these were highly limited, with no regular boat services travelling there at the time. Eventually, decades later, opportunity presented itself via a reactive response to the global impost of COVID-19 that has been termed “revenge tourism”.

As is well-known, COVID-19 first emerged in late 2019, in Wuhan (China) and by March 2020 had spread globally. The proliferation of travel systems, such as rail, road, shipping and aviation, was quickly identified as the major factor in spreading the virus rapidly through densely populated urban centres. As such, the 2019 outbreak was a distinctly contemporary phenomenon, one that O’Callaghan-Gordo & Anto (2020) characterised it as “the disease of the anthropocene”. Reflecting this, most countries closed their borders and restricted internal movement. Travel restrictions only began to loosen in late 2021 (although countries such as China and Japan retained these well into 2022). The pandemic caused something of an existential crisis amongst humans and Susan Harris insightfully extended Heather Paxon’s (2008) concept of microbiopolitics to COVID-19

and pandemics more generally,¹⁷ calling “attention to the fact that dissent over how to live with microorganisms reflects disagreement about how humans ought to live with one another” (Paxson 2008, 16). Recontextualising this approach to human relationality (and resulting entanglement) with COVID-19, she contends that:

Paxson’s formulation of microbiopolitics as the construction and evaluation of categories of microorganisms serves as a useful model to ask what kind of microbiopolitics the coronavirus pandemic makes possible and what these strategies imply for collaborative human-microbe relations or multispecies flourishing. The microbiopolitics that marks the pandemic as new mutations and strains of viruses are being identified and a future of zoonotic diseases is anticipated shows this microbial relationality as already present. However, to make sense of entanglement in the pandemic is to recognize microbiopolitics as socio-politically contingent and undercut by anthropocentric anxieties for our own well-being but also as a species precarity. This species precarity for humans shows that the pandemic is differentially experienced as a self while negotiating its relations with non-human others. (Harris 2022)

This is a striking characterisation, as it allows for COVID-19 to be envisaged as a meta-presence that proceeds on aggressive pursuit of human hosts and which we can engage with on such a level.

In most western countries, the aforementioned COVID travel ‘freeze’ lasted less than two years but was still profoundly disturbing for populations who had come to expect that domestic and international travel opportunities would be indefinitely available to them (finances permitting) (Feei Ma et al. 2020; McDermid et al. 2022). As numerous pundits and researchers identified, there were benefits for the planetary environment in what has been termed the “Anthropause” (Biswas Chowdhury et al. 2021). Another result of this hold on travel was a phenomenon that has come to be known as “revenge tourism”. The term appears to have originated on social media in 2021 and to have been taken up by the travel industry in their efforts to promote tourism options as the pandemic declined. The “revenge” in question was (figuratively) against COVID-19 but the phenomenon might be better referred to as “catch-up travel”. Vogler (2022) summarised the latter as originating “from the boredom and uniformity of activities undertaken during the pandemic” with people feeling “exhausted and tricked by fate which took their opportunities for relaxation, meeting other people and having experiences”.

17 Paxson introduced the concept with regard to relationalities between microorganisms in food and human manufacturers, consumers and regulators.

In June 2022, just as travel was re-opening between a number of countries, the Small Island Cultures Research Initiative (SICRI) re-started their annual island-based research conferences with one in the Shetland capital, Lerwick. Under normal circumstances I would have flown from Sydney (Australia) to Glasgow, transferred to Lerwick, briefly lingered after the event and then retraced my route home, but the sharp realisation brought by COVID-19 that future international travel (and the relative cheapness of pre-pandemic flights) could not be taken for granted motivated me to visit a few other Scottish locales that had long fascinated me. Flying back to Glasgow I hired a car and, joined by two companions, drove west through Oban and Fort William and over to Skye. I had two motives for visiting the latter, the first being the place itself, and the second, the boat service to St Kilda that operated from Stein, on its north-west coast.¹⁸ As I was shortly to discover, I was moving from one viral realm to another.

Four decades after I first resolved to visit St Kilda, I finally set off by boat to visit the islands on June 30th 2022. Although I had familiarised myself with maps of the archipelago, the opening sequence of Powell’s *Edge of the world* film had lingered with me and I was expecting to arrive and see Hirta looming, grandly isolated, out of the sea. Instead, our boat’s route saw us approach from the north-east [fig. 1], through a scatter of rocky stacks beyond which lay Hirta [fig. 2]. The experience of the voyage over was far from the serene one represented in the prologue to Powell’s film. The trip was made in high-powered, Redbay 13m offshore RIB¹⁹ vessel capable of reaching over 30 knots per hour and, even with the skipper pushing the speed, the journey took over three hours bumping across swells. Arrival at the archipelago was therefore welcome and the starkness and elevation of the stacks was breath-taking. I had a similar sense of arriving in a realm where humans were not the dominant species as I had experienced earlier in Newfoundland. But there was a difference. The number of birds seemed considerably less than had been described by Martin (1999) centuries before and was also markedly less than the density I had previously witnessed in Newfoundland. It was also eerily quiet. Bobbing off stacks in our boat we could hear individual birds calling – a puffin honking as it skimmed across the waves near us, faint fulmar squawks from a nearby rock but no cacophonous soundscape similar to that I had been immersed in off Newfoundland. Not having visited before, I couldn’t assess the extent to which avian presence on the stacks and above the waters around them may have declined from previous years, but something seemed amiss.

¹⁸ Operated by Go to St Kilda: <https://www.gotostkilda.co.uk>.

¹⁹ RIBs are inflatable boats, with rigid hulls and inflated side panels. They are stable, light and fast and were pioneered by the Royal national Lifeboat Institution.



Figure 5 Great Skua in defensive pose. Photo by Erik Christensen – with permission from Murray Nurse – Wikimedia Commons

Landing in Village Bay in the late morning, I sheltered in the warmth of a NTS hut with my young travelling companion, Teagan, until heavy rain stopped. We then headed off, following the coast to the south before splitting up as I walked up to Ruival, a peak that overlooks An Torc stack, to the west, and the narrow straight separating Hirta from to Dùn. Scenic vistas aside, I had another reason for trudging up the wet path, as there was a particular bird I wanted to see, albeit with some trepidation, the Great Skua [fig. 5].²⁰ My reservation reflects the bird’s aggressive nature and its well-documented predilection for swooping at humans approaching areas in which it is nesting.²¹ Weighing up to 2 kilograms, with long beaks and sharp clawed feet, and able to reach air speeds of up to 50 kilometres per hour, the Great Skua has formidable deterrent capacities that are readily deployed against other species. Walking the hills above Hirta’s historic village I awaited such interaction, but none came. I was perversely disappointed and, returning to the shore prior to re-boarding our boat, I raised the absence with our guide, who filled me in about the drop of bird numbers in the islands since 2020 due to the

20 While skuas roost in various places on Hirta, I had read in sources such as Milliken 1997 that this was a good area to see skuas close to Village Bay.

21 Also see <https://www.flickr.com/photos/nevispix/4741995198>.

arrival of HPAIV. I learned that shortly before my arrival, National Trust Scotland had reported that birds had been observed behaving strangely and that bodies of deceased birds had been found washed up on shores around the Western Isles and urged people not to touch any dead or dying seabirds they might encounter (due to fears of potential cross-species viral transmission) (BBC 2022b). This provided some explanation for the low density of gannets, shearwaters and puffins seen on our approach to the islands. Our guide also informed me that HPAIV had one of its highest impacts (i.e. most fatalities) on the Great Skua, sparking fears of its possible extinction in the archipelago (Banyard et al. 2022; BBC 2022a). The comment I had made in my diary about Bay Bulls and Witless Bay, some 19 years before, came back to me. Instead of “plenitude”, I immediately thought of “precarity” - not a concept I had anticipated on these remote islands.

The situation on St Kilda reflected the extent to which HPAIV (Highly Pathogenic Avian Influenza Virus)²² had a major impact on various species and colonies of domestic and wild birds. Colloquially known as ‘bird flu’, the virus has attracted concern since the 1960s when transitions from the less impactful Low PAIV to High PAIV began to be apparent, leading to periodic mass culls of domestic fowl, most notably chickens, in order to contain its spread. Avian Influenza Virus (AIV) is spread through birds’ respiratory secretions and faeces. Its high transmissibility derives from its protracted survival outside avian bodies, in faecal deposits or water, and through transmission from those sources to other contexts. Often emerging in domestic fowl, particularly in high density farming situations, it is readily transmitted to wild bird communities, with waterfowl and seabirds being particularly common transmitters that range over large areas (WOAH n.d.).

Walters (2008) has characterised the global outbreaks of highly contagious variants of previous diseases as *ecodemics*, caused by humans “radically changing the natural environment” through factors such as intensive agriculture and anthropogenic climate change and with increasing global trade and travel exacerbating the rapid spread of epidemics”. As accurate as this characterisation may be, despite being apparently “wild” - i.e. understood as being outside of human agricultural systems (and the close proximity to other species involved) - such birds are key HPAIV vectors. Alexander and Brown cite the commonly accepted start of avian influenza (AI) in the 1870s but note that outbreaks up until 1996 resulted in limited loss of avian life and that it was not until the late 1990s that highly pathogenic strains emerged (HPAI) that killed millions of birds in poultry farms, before the most intensely pathogenic strain to date, H5N1, emerged

²² Also referred to as High Pathogenicity Avian Influenza Virus.

and became dispersed by (wild) seabirds, decimating many seabird colonies in the process. The latter aspect was a somewhat surprising development. As recently as 2016, the scientific consensus around migratory aquatic birds was that while they were hosts of LPAIV, and that they dispersed this in their migrations, there was “evidence on both sides of the host-virus relationship that the two have evolved over time to establish an ‘equilibrium’ that results in mild disease in wild birds” (Hill, Hunstadler 2016, 304). But as the authors also stated:

This co-evolutionary relationship between bird host and IAV may appear stable at the organismal level, but is highly dynamic at the molecular level manifesting in a constant trade-off between transmissibility and virulence of the virus. Characterizing the exact nature of the host-virus equilibrium looms large as a challenge facing influenza researchers – ecologists and virologists alike. (304)

The sudden switch to highly pathogenic forms that were fatal to carrying species illustrates the difficult nature of the “challenge” the authors identified, but an aside within the article is also pertinent:

In many ways, addressing this challenge hinges on reconciling ecological (host-centric) and virological (virus-centric) approaches with the goal of integrating scales for measuring host-virus co-evolution. (304)

While there is no evidence that these two polarities *have* been successfully integrated in a manner that facilitates the production of “scales” that can measure host-virus co-evolution, the challenge is one that falls within the sphere of multi-species ethnography. The two principal players in the (co-evolving) epidemic are obviously the birds and the virus but enabling this interaction, albeit unwittingly, humans have caused and enabled all facets of the Anthropocene.

In 2022, a survey on breeding pairs of skuas on St Kilda observed that over two thirds of them had died due to HPAIV (Hall 2023). In 2023 a survey of cliff nesting birds on the main islands of the St Kilda group was compared to a similar survey conducted in 1999 with the results indicating a 61% decline across the four species of cliff nesting birds (fulmars, guillemots, razorbills and kittiwakes) (National Trust for Scotland 2023a). Precise figures on gannet mortalities are not available but indicate similar levels of impact, leading Susan McBain, Western isles Manager for the National Trust for Scotland to identify that a “decline in seabirds diminishes the World Heritage Site and is a clear signal that our marine ecosystem is under immense pressure” (National Trust for Scotland 2023b).

In the light of HPAIV’s impact on the islands in 2022, one of the most notable aspects of UNESCO’s WH listing documentation is its

identification of risks to St Kilda’s complex environment (under a section headed ‘Integrity’). The documentation listed “a range of remote and local environmental and anthropogenic factors”, including climate change, the development of disruptive tourism practices, the accidental introduction of invasive species, offshore oil spills, unsustainable fishing practices, (unspecified) “large-scale off-shore developments” and - identified as “probably the most severe potential threat” - “variations in the marine ecosystem, especially the plankton, caused by climate change”. While not specified, the impact of all these on particular species that support St Kilda’s seabird colonies are a major concern. Sand eels (small bottom dwelling fish of the genera *Hyperoplus*, *Gymnammodytes* or *Ammodytes*), for example, have long been a staple food source for St Kilda’s birds but their numbers have been substantially reduced around the Scottish coast by foreign commercial fishing operations harvesting them for animal feed and fertiliser, with the NTS (2023b) identifying pressure on them as a major concern.

As significant as the factors identified by UNESCO might be, it is notable that microbial risk is entirely ignored. In many ways, such a factor, particularly in the form of HPAIV, is one of the most “wicked” of the potential problems the WH site faces. The very migratory seabirds that are a prime ecological asset for St Kilda are also the vector for the dispersal of the virus that has recently afflicted them and may, if it mutates in even more highly pathogenic forms, so severely deplete bird populations that they become unviable. In terms of the sociovirological perspective advanced by Díaz-Muñoz et al. (2017), the twist here is that the massive depletion of hosts caused by a highly pathogenic mutation of the virus severely limits its own possibility for population increase. With human treatment and/or vaccination of wild bird species currently beyond the scope of human imagination, will and resources; the only available option for the humans who notionally steward St Kilda and the species that live on it, is to hope worst case scenarios do not eventuate as the planet slides further into human induced climate change and the suite of phenomena that accompany it.

5 Reflection

Throughout this article I have been aware of Anna Tsing’s caution that much environmental humanism (and even the “best” of this) relates “the importance of other beings (the conceptual vitality of their materiality; their centrality in history) without allowing them to become protagonists in our stories” (2023, 1). As she goes on to emphasise, it is

easy to get analytically stuck in human worlds in which nonhumans are either tools or blocks for human projects, even while proclaiming the importance of nonhumans. (1)

In this regard, I am “guilty as charged” but deliberately so as I have been primarily concerned to examine human presence and, in particular, livelihood activities, in St Kilda that centred on avian resources and that created a distinct aquapelagic assemblage. Indeed, the remote locale offers a remarkable insight into the nature of a marginal human society that exploited seabirds as a primary resource and – more latterly – of a designated world heritage location in which the seabirds manifest and exemplify the complex marine and terrestrial space in which multiple species constitute a distinct eco-system. The seasonal HPAIV outbreaks that afflicted seabirds on St Kilda in 2021-23 were a novel element in the eco-system but were ones that combined with other elements (such as global warming and fishery pressures) to diminish the islands’ ecological resilience. These elements pressure the environmental refuge that its various Scottish, British and UNESCO statuses have attempted to create, recalling Tsing’s concern over the Anthropocene’s impact on such refugia, which has depleted (if not obliterated) the eco-resources necessary for populations to regenerate after short-term crises. In her response to this concern, Haraway (2016) called for “intense commitment and collaborative work and play with other terrans, flourishing for rich multispecies assemblages that include people” (101). Viewed in this manner, St Kilda presents as something of a test-case. The island’s avian-aquapelagic orientation during around 2000 years of habitation undoubtedly modified the nature and variety of seabird species previously inhabiting the area but also found a new equilibrium in which the harvesting and consumption patterns of a small human population did not send (most) local avian populations into terminal decline.²³ The recent switch to the island as bio reserve with highly controlled human inhabitation of and visitation to the islands, initiated in 1930 and solidified by UNESCO WH status, may be seen to represent a first glimmer of the new Chthulucene order she envisages, but equally may be “too little, too late” in a planetary context. The Utopian concept of meta-species kinship is striking in that it “entangles myriad temporalities and spatialities and myriad intra-active entities-in-assemblages – including the more-than-human, other-than-human, inhuman, and human-as- humus” (101) but HPAIV, along with COVID, Ebola and a range of other microbial phenomena fit somewhat awkwardly into a concept of mega-species kinship.

23 With the exception of the previously discussed Great Auk.

Reflecting on a range of concepts, including those previously discussed in terms of sociovirology (Díaz-Muñoz et al. 2017) and the value of “thinking with viruses” (Berrigan 2022) has characterised that:

viruses do not figure easily into mental models of representation. They inhabit the micro- and nanospheres, yet their reach is planetary. The material worlds of viruses must instead be conjured through a secondary semiotic of affects, indices, and symptoms... They require the development of an entirely different set of attentions to places of touch and encounter, where human sociality is in symbiosis with more-than-humans, and where contagion and communication are inseparable.

Berrigan’s discussion reflects her own deep and traumatic relationship with the Hepatitis C virus but her articulacy can also serve as the touchstone for an unanswerable question of whether/how sea-birds engage with the agency of viruses, their presence in their bodies and their impacts. Are these effectively deadly shadows that fall across them? Or are there inbuilt and/or learned mechanisms for coping, resignation or endurance that recognise what processes are in place? And even if we humans can glean insights into this, what do such “kinly” insights offer in terms of resisting viral assaults on refugia and the populations within them?

Approaching St Kilda from the northwest in June 2022, one of my co-passengers remarked, awe-struck, that the place was like “Jurassic Park”. This was a problematic allusion. I knew what he meant but I also suppressed an impulse to dispute the characterisation and offer an alternative one. The island eco-park central to Crichton’s eponymous novel (1990) and the subsequent series of films inspired by it was one imposed upon a tropical environment to sustain a population of dinosaurs brought back for extinction by DNA engineering as an attraction for human tourists. By contrast, St Kilda’s sense of primevality (such as it is) results from its outer islets (in particular) betraying minimal traces of human impact. The impression that I think my fellow traveller was trying to articulate was of the islands being both “at the edge of the world” (as per the title of Powell’s 1937 film) and somehow “out of time” and/or external to modernity. It is fitting, in this regard, that the trope of islands at edge of the world being as impacted by Anthropocene factors as metropolises has been central to detailed and inventive discussions of environmental change in locales such as the Fuegian archipelago at the tip of South America (Ogden 2021) and – geographically closer to St Kilda – in Laura Watts’ (2019) discussion of explorations of tidal power in the Orkney Islands.

Like me, my fellow, film-alluding passenger had boarded the boat after traversing the mainland virus-scape and, presumably, had come

to some type of accommodation of the virus and/or vaccines and/or the hand sterilisation and mask protocols required at the time. In all likelihood, some, if not all, of those onboard, either carried the virus, had acquired immunity to it or had received the vaccines designed to combat it. Unlike us, the seabirds that visited the islands that summer confronted “their” virus in a less managed manner - it moved through them without resistance from mechanical or medical protections and was brought to their roosts as they flew in from wherever they had wintered. Indicating the highly implicated nature of species, the seabirds were vectors of the disease that assailed them as much as victims of it. In this interaction, the humans visiting St Kilda were the audience to a drama that their species had initiated through intensive poultry farming and the cross-species contamination that had resulted. The radiating ripples of human disruption of a multi-species systems were, thereby, just as manifest on St Kilda as they were in epicentres of early COVID dispersal such as Wuhan. This underlines how concepts of isolation and of isolated refugia are increasingly untenable in an era in which viruses are mutating and spreading in rapid and virulent manners and in which global sea temperatures and changes in the behaviour and sustainability of everything from plankton to coral to apex predators is apparent. In this manner “the edge of the world” is not so much a geographical concept as a precipice into profound turbulence with an unfathomable conclusion and point of re-equilibrium in which we humans, seabirds and a range of other actors may play very different roles within or else be absent from. In this context, distinctions between nature and (human) culture no longer hold in the gyres that envelop both scattered isolates and global populations.

Within the parameters of aquapelagic studies, the St Kildan society documented between the 1690s and 1930 is distinct in terms of its heavy reliance on harvesting seabirds (rather than fish, shellfish and/or aquatic plants). In this manner, its assemblage was markedly more triangular than what might be termed ‘classic’ marine-terrestrial aquapelagos (such as the Maldives or Indonesia’s Spermonde islands)²⁴ in which the aerial/avian dimension is a more minor element. But, in the manner of ‘classic’ aquapelagos, it also demonstrably waxed and waned over the period in question, eventually disassembling as human livelihood activities ceased. The islanders’ particularly intense relationship with and exploitation of seabirds has now receded into history. With the dispersal of its indigenous population, it has been succeeded by a different kind of activity involving the formulation and articulation of an environmental sanctuary (in

24 See Bremner 2017; Vandenberg 2020, respectively, for discussion.

a similar manner to that enacted on Haida Gwaii in recent years²⁵. In this, human livelihood activity is replaced by human stewardship, with the latter primarily focussed on preserving bio-resources from the predation of its own species and powerless to prevent viral intrusion or the broad scope of Anthropocene environmental change. While prediction is always speculative, it is highly likely that the management practices that created this triangular sanctuary will also wane and may, indeed, be shorter lived than the islands’ previous 2000 year occupation, further emphasising the temporary nature of aquapelagic assemblages and the necessity of their consideration and study within temporal contexts.

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25 See Hayward 2012b for a historical outline and discussion.

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Symbiotic Narratives for a De-Colonial Turn

Exploring the Arboreal Identity in Sumana Roy's *Out of Syllabus*

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Abstract This study delves into the nuanced relationship between humans and trees, focusing on Sumana Roy's *Out of Syllabus* (2019). Using a multidisciplinary approach drawing from anthropology and philosophy, it aims to uncover the dynamic role of trees in the human experience in India. Positioned within a postcolonial perspective aligned with the decolonial turn, the analysis emphasises trees' active agency, challenging their traditional portrayal as passive elements. Informed by scholars like Jones and Oppermann, it delves into the nuanced interplay between human and arboreal existence, enhancing our understanding of their symbiotic relationship.

Keywords Arboreal symbiosis. Postcolonial narratives. Human-tree dynamics. Decolonial arboreal identities. Roy's botanical discourse.

Summary 1 Introduction: Trees as Custodians of Cultural Narratives; 2 Decentralising Anthropocentrism Through *Dwelling Perspective for a Decolonial Turn*. – 3 *Out of Syllabus* ("Botany"): The Narrative of Trees and Memory. – 3.1 Metamorphosis: *Trees-body-of themselves*. – 3.2 Close Reading of the "Botany" Section. – 4 Conclusion.



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1 Introduction: Trees as Custodians of Cultural Narratives

This study delves into the complex relationship between humans and trees through a detailed analysis of Sumana Roy's poetry collection, *Out of Syllabus* (2019). In exploring the nuanced role of trees in the human experience, the research adopts a multidisciplinary approach, drawing insights from anthropology and philosophy. Rooted in a theoretical framework that perceives trees as dynamic, non-passive entities, scholars such as Owain Jones, Paul Cloke, Tim Ingold, Serpil Oppermann, and others contribute nuanced perspectives woven into this discourse. The analysis is meticulously directed towards understanding the nuanced identity of trees within the geographical expanse of the former British colony, India. This analytical framework, aligned with the decolonial turn, aims to shed light on the developmental paths of "local distinctiveness" and "place-identity" (Cloke, Jones 2002, 9). Through a postcolonial lens, it contends that anthropocentrism should not dominate the cosmic centre, emphasising the importance of balancing human and non-human elements in understanding identity and place. Instead, it necessitates fair consideration alongside non-human elements (Huggan, Tiffin 2017, 17). Within this contextual framework, the study explores the intricate entanglement between human and arboreal existence, portraying trees not solely as silent observers but as active participants in the dual roles of storytellers and ancestral entities. The thematic focus on the arboreal identity within the Indian landscape unfolds as an exploration of the cultural, ecological, and symbolic dimensions of trees, demonstrating how they transcend their conventional portrayal as passive elements of the landscape to become dynamic agents intricately interwoven into the cultural and ecological tapestry of the Indian subcontinent. Through this literary expedition, the paper aspires to contribute to a profound understanding of the symbiotic relationship between humans and trees.

In Indian mythology and epics, plants hold profound significance in human life, a principle highlighted by Krishna and Amirthalingam in their scholarly work (2014), *Sacred Plants of India*. They argue that trees maintain their sacred essence even amidst adversity, drawing on passages from Valmiki's epic poem, *Ramayana*, to illustrate this enduring spiritual continuity. Sita's devotion to a towering banyan tree (*Ficus benghalensis*) along the Kalindi riverbank, where she prayed for Rama's success in his vows, epitomises the enduring reverence accorded to these botanical guardians. The Dandaka forest, dwelling place of Rama, Lakshmana, and Sita, alongside the Ashoka grove where Sita was held captive in Lanka, stand as revered sanctuaries. The *Ramayana* also extols the sanctity of botanical species such as tulsi (*Ocimum tenuiflorum*), pipal (*Ficus religiosa*), banyan (*Ficus benghalensis*), and amla (*Phyllanthus emblica*), which play a

crucial role in religious rituals. Specific narratives further underscore this reverence: in their search for Sita, Rama and Lakshmana sought counsel from a badari tree (*Ziziphus mauritiana*), and in gratitude, Rama bestowed eternal life upon it after it revealed Sita's location. Even Ravana, despite his infamous reputation, adhered to cultural norms by abstaining from cutting fig trees (*Ficus religiosa*) during the month of Vaisakha (Krishna, Amirthalingam 2014, 29-30). These passages from the *Ramayana* illuminate the enduring connection between plants and human life, deeply interwoven in Hindu mythology and cultural traditions, portraying them as sacred entities woven into the spiritual and ethical fabric of society.

Plants such as the basil [*Ocimum tenuiflorum*], pipal [*Ficus religiosa*], banyan [*Ficus religiosa*], and Indian gooseberry [*Phyllanthus emblica*] were worshipped by the common people. [...], the epic says the human heart makes man regard plants and trees with sanctity and as worthy of worship. (Krishna, Amirthalingam 2014, 30)

Contemplating the longevity of these trees as 'majestic sentinels', named so because of their enduring presence and unchanged reverence throughout history, inspires profound reflections on their interconnected narrative with humanity. These sacred trees, deeply rooted in cultural and spiritual traditions, have witnessed countless generations, each leaving a legacy of care and communion beneath their expansive canopies. Their resilience and natural grandeur symbolise continuity and inspire awe, while their role as protectors of cultural heritage and biodiversity emphasises their significance as true guardians of time and tradition. Therefore, it can be stated that

There is an inextricable link between people and trees, especially old trees. From all the thousands of uses we have put them to, and all the fears and desires we have projected onto them, human cultures around the world have emerged from the trees. [...] trees also carry significant cultural baggage. Deep currents of meaning swirl around our culture(s) and brush through the branches of any tree or tree-place which is being encountered, experienced, narrated or imagined at any given time. [...] we should immediately recognize arbori-culture as a global phenomenon, with different societies and places offering often distinctive discursive narratives of tree meanings. (Cloke, Jones 2002, 19-20)

This contemplation brings to mind an intriguing and culturally resonant ritual in Punjab, India - known as "Jatheras" (Rose 1883, 374), which invokes ancestral connections. This ritual, deeply rooted in the cultural tapestry of Punjab, unfolds as a poignant expression of the interconnectedness between the living and the ancestral spirits. A

unique facet of this tradition involves the newly-wed couple partaking in a ritualistic circumambulation around the Pipal tree – a sacred fig tree (*Ficus religiosa*). During this ceremony, the bride and groom intricately tie a red thread around the Pipal (*Ficus religiosa*), symbolising the eternal bond of marriage. As they embark on this symbolic journey, the ritual takes on a profound significance – the newly weds are not merely binding their destinies, but also engaging with their ancestral lineage, acknowledging the continuum of life and the enduring connection with those who came before. The culmination of the ritual involves the pouring of *kachi lassi* – a mixture of milk and water – around the base of the Pipal tree (*Ficus religiosa*). This libation serves as a symbolic gesture, a gesture of gratitude and celebration shared not only with each other but also with the ancestral spirits believed to reside within the sacred tree. It is a poignant acknowledgment of the shared journey of life, connecting the present with the past in a sacred and timeless dance. This ritual, regrettably, occupies a marginalised position within academic discourse. A singular exception to this scholarly lacuna is discerned in H.A. Rose's work, *A Glossary of the Tribes and Castes of the Punjab and North-West Frontier Province*, dating back to 1883. Within the pages of this comprehensive glossary, Rose provides a rare elucidation of the term 'Jatheras': "Jatheras are also commonly worshipped in the central districts, but the rites vary" (374).¹

In the folklore of Bangladesh and West Bengal, oral histories weave narratives of a spectral presence known as "gechho bhoot, ghosts of Bengali trees" (Roy 2019, 264). This phenomenon encapsulates the belief in spirits or ghosts inhabiting trees, as expounded by Sarkar and Debsarma in their book chapter (2021, 71), "Ghosts in Bengali Folktales: Looking for Subaltern Cultural Identities". This intriguing cultural facet prompts contemplation on the divergent metaphysical roles assigned to trees in different cultural contexts. The term *gechho bhoot* assumes significance, denoting souls tethered to the mortal realm due to occupational hazards or fatal accidents (73). Sarkar and Debsarma illuminate this concept in their text, highlighting the nuanced semantic range of the Bengali word *bhoot*:

Bhoot means both 'past' and 'ghost' in Bengali and *Pret* means 'spirit' in the literal sense of the terms. They are believed to be the souls of an unsatisfied human who has died in unnatural and abnormal circumstances. Other animals and creatures other than humans can also be turned into a ghost. (70-1)

1 This ritualistic practice manifests variances across villages within the Punjab region, and the aforementioned ceremonial depiction specifically pertains to the traditions observed in Jandiala, Nawanshahr.

This intricate interplay of cultural narratives unveils a diverse spectrum of metaphysical beliefs, emphasising the multifaceted connections between the natural and supernatural realms. The juxtaposition of ancestral spirits in the Punjab and the spectral inhabitants of trees in Bangladesh and West Bengal reflects the profound cultural diversity embedded within the broader cultural environment of the Indian subcontinent, where trees not only serve as silent witnesses, but as repositories of narratives transcending the boundaries between life and afterlife.

The ritual of the Jatheras and the folkloric legend of the *gechho bhoot* emerge as integral components of “subaltern cultural identities” (71), manifesting within the expansive realm of folk imagination. In delving into these cultural narratives, ostensibly tethered to seemingly passive entities such as trees, a paradigm shift occurs, revealing the inherent agency embedded within these arboreal entities within both mindscapes and landscapes. Far from being inert elements of the physical environment, trees, as elucidated through these socio-cultural narratives, become active agents in shaping the cultural and metaphysical contours of specific communities. The Jatheras ritual, with its nuanced observances and significance in Punjab, and the *gechho bhoot* folklore, weaving spectral narratives within the folk traditions of Bangladesh and West Bengal, collectively underscore the dynamic role trees play in the cultural heritage of diverse populations.

Recognizing trees as repositories of cultural narratives unveils their agency as carriers of collective memory, embodying not just physical presence but also serving as conduits for the transmission of cultural and metaphysical beliefs. In this light, trees emerge as custodians of subaltern cultural identities, silently narrating stories that resonate through generations. Consequently, the entanglement of trees within socio-cultural narratives reaffirms their pivotal role as dynamic agents, perpetuating the rich tapestry of subaltern cultural identities across diverse landscapes.

2 Decentralising Anthropocentrism Through Dwelling Perspective for a Decolonial Turn

This exploration prompts a deeper consideration of the essence of place identity, particularly through the lens of trees, integral components of local culture, as illuminated in the discourse by Sarkar and Debsarma (2021). The resonance a place holds in the hearts of individuals extends beyond its physical attributes; it becomes a canvas painted by nature, evoking contemplation and emotion. Reflecting on Vittorio Lingiardi’s insights, the significance of a tree-lined place transcends mere visual aesthetics. Instead, it unfurls its

meaning through the intricate interplay between the observer and the observed. This dynamic interaction sparks emotional and psychic responses, fostering the genesis of a uniquely personal and intimate relationship between individuals and their surroundings (Lingardi 2017, 19). The emphasised landscape connection surpasses mere physical presence. It encompasses an environment, horizon, panorama, space, soil, and territory. It becomes an existential anchor, so intertwined with the being that recognizing the landscape becomes synonymous with recognizing the place in the world. This deep connection with the landscape adds existential value, seamlessly integrating into identities and weaving into the rich tapestry of collective experiences.

In landscapes marked by the shadows of colonial history, like the Indian context, the intricate bond between individuals and trees gains profound significance. In numerous cultures, including those that have not undergone colonisation, trees represent much more than mere natural beauty. Conversely, within colonised cultures, trees serve as testament to the intricate interplay between colonial legacies and indigenous cultural narratives. The narratives woven into their branches resist the erasures of history, becoming resilient testaments to shared existence and identity reclamation. Trees emerge as living witnesses, bearing both the scars of the past and the ongoing stories of resilience within landscapes shaped by colonial echoes.

The colonial cultures, rooted in rationality and epitomised by the West, systematically positioned the stronger Western human as the central focus of human pursuits. This trend, notably prevalent during the Age of Enlightenment and accentuated with Darwinism in the pursuit of development, originated in the West. This anthropocentric perspective, later imposed on the colonies, falsely equated anthropocentrism with Eurocentrism. As a result, humans assumed a dominant role in nature, shaping the treatment of the natural environment in the colonies without regard for the intrinsic principles of native cultures (Huggan, Tiffin 2015, 30). In this discourse, it is pertinent to highlight the Western rational and capitalist perspective instilled in one of the characters in Amitav Ghosh's novel, *The Hungry Tide* (2005), namely S'Daniel by his teachers:

In school his teachers taught him that life's most important lesson is 'labor conquers everything', even rocks and stones if need be - even mud. As with many of his countrymen, a time came when Daniel Hamilton had to leave his native land to seek his fortune, and what better place to do that than India? (49)

The colonisers, from a Eurocentric perspective, perceived the Indian environment not as a deserving entity to be respected, as the indigenous population did, but rather as a resource to be exploited

without restraint. This exploitative approach formed the foundation of the colonial economic system. An illustration of this attitude can be found in the exploitation of Sandalwood (*Santalum album*), a tree highly esteemed in Indian culture and tradition. Designated as royal trees by the Vijayanagara empire and Wodeyar dynasty, and utilised in sacred sites such as Hindu temples, sandalwood in the Western Ghats region was extensively harvested by the British for export to Europe. In the period between 1799 and 1809, a staggering quantity of over 62 million maunds (with one maund equating to 37.32 kilograms) of sandalwood was extracted solely from the Coimbatore district, yielding substantial revenue for the British government through leases and rents (Mathew 2019, 593-4). This systematic exploitation extended beyond the indigenous human population to encompass the very landscape, thereby fostering an unsustainable and exploitative relationship with the environment (Castellino 2020, 583-5). Their perspective can be characterised as exploitative, given that, in their view, the landscape around was perceived as lacking any socio-cultural significance and identity.

In contradistinction to the prevailing colonist viewpoint, the conceptual framework of the “dwelling perspective”, expounded by Tim Ingold in seminal works such as “The Temporality of Landscape” (1993) and “Building, Dwelling, Living: How People and Animals Make Themselves at Home in the World” (2000), assumes paramount significance. This theoretical construct subsequently finds elaboration in the collaborative endeavours of Paul Cloke and Owain Jones, notably in *Tree Cultures: The Place of Trees and Trees in Their Place* (2002). Approaching this discourse through a postcolonial lens posits that, in former colonies, such as India, the *anthropos* – the human being – has not been ascribed a central position in the cosmic narrative, thereby challenging Western colonial ideologies that traditionally accord human centrality by excluding non-human entities. This postcolonial perspective serves as an analytical framework for elucidating the evolutionary trajectories of “local distinctiveness” and “place-identity” (Cloke, Jones 2002, 9), asserting that anthropocentrism should not monopolise the cosmic centre. Instead, it necessitates equitable consideration alongside non-human elements (Hugan, Tiffin 2017, 17). Within this context, trees emerge as integral components of the local population’s identity, intricately interwoven with their collective psyche. This profound relationship transcends mere physical presence, signifying the embodiment of memory within trees and reciprocally weaving memories into the very fabric of arboreal existence. Instances such as *Jatheras* and *Gechho Bhoot*, as delineated earlier, underscore the parity in significance accorded to non-human elements. These foundational concepts find particular relevance within the “Botany” section of Sumana Roy’s poetry collection, *Out of Syllabus*.

It is crucial to acknowledge the profound connection between human beings and nature that shapes the identity of a place, especially considering non-human entities such as trees. In Heideggerian terms, one can articulate that “the being-in-the-world” (Cloke, Jones 2002, 81) defines the essence of the “dwelling place” (80) – the landscape where one resides, intertwined with other inhabitants, both human and non-human. Cloke and Jones emphasise that

Dwelling is about the rich intimate ongoing togetherness of beings and things which make up landscapes and places, and which bind together nature and culture over time. It thus offers conceptual characteristics which blur the nature–culture divide, emphasize the temporal nature of landscape, and highlight performativity and non-representation, and as such it is attractive to those trying to (re)theorize the nature of nature, and the nature of landscape and place. In particular, the understanding of dwelling provides a route for those who seek to move away from dichotomous realist and idealist approaches to place, environment and landscape. (81)

Contrary to Cartesian notions that accentuate the separation of body and mind (81), Lingiardi, Jones and Cloke’s perspectives illustrate the profound connection individuals share with a specific place, both mentally and physically, facilitated by non-human entities. This relationship can be understood as a shift from a “building perspective”, where ideal human mental constructs are imposed on the world, to a “dwelling perspective”, wherein any act of building, living, or thinking is shaped within the context of an already existing world, thereby influencing the very process of shaping. Consequently, emotions, affection and memory become integral aspects of this dynamic interaction. Dwelling, in this interpretation, is closely tied to notions of home, the local, and a genuine concern or fondness for nature and the environment. To dwell, within this framework, signifies establishing roots through the act of accommodation in a specific place (81). From a postcolonial point of view, in alignment with Edward Said’s perspective (1978), it becomes apparent that colonisers lacked a genuine connection with the lands they colonised. Instead, they viewed these territories as wild, jungles awaiting civilization for the sole purpose of colonisation, despite the land occupying some space in their minds fueled by fantasies, as evidenced in certain paintings (1978, 119). In accordance with their principles, both human and non-human entities were deemed deserving of respect only if they conformed to being “a product of number, of form, of proportion, of situation” (119). This rational perspective, prevalent in European philosophy, is evident in the works of Kant, Diderot, and Johnson, all of whom emphasised the notion of “reducing vast numbers of objects to a smaller number of orderable and describable types” (119).

Consequently, the concept of dwelling emerges in stark contrast to the notion of ‘rational’ dwelling advocated by colonisers for the exploitation of the lands they occupied. The essence of dwelling, inherently, “incorporates both a spatial and a temporal dimension” (Cloke, Jones 2002, 82). “Dwelling emphasizes the temporal dimension, and envisions ensembles of characters (people, things, and animals) producing places and landscapes over time” (83). This signifies that the past, unmarked by colonizers, and places deemed sacred in the indigenous perspective cannot be eradicated. Thus, the conception and sacredness of non-human entities reject being regarded solely as objects for unmitigated exploitation. The concept of ‘being-in-the-world’ necessitates an understanding of the landscape, wherein

the past and future are co-present with the present-through processes of memory and imagination. Past, present, and future are continuously reprocessed while the materiality of the landscape is worked by, and marks, this process. (82-3)

This perspective aligns with significant assertions, emphasising that “non-humans [are] active players in the ‘performance of place’” (83). Hence, a place develops its distinct identity, referred to as “place-identity”, and possesses “local distinctiveness” (22), aspects that are beyond dispute.

3 Out of Syllabus (“Botany”): The Narrative of Trees and Memory

3.1 Metamorphosis: *Trees-body-of-themselves*

A limited number of authors engage in the discourse of trees, a complex subject demanding an exploration of one’s ontological presence in the world. The act of writing ‘about’ and ‘with’ trees necessitates a nuanced interaction between being and non-being, a communication that transcends conventional expression. Here, it becomes the writer’s responsibility to unravel the intricate language and memory embedded in the realm of non-being, presenting an authentic and formidable challenge. Among the individuals who have confronted and navigated this complex terrain is the writer Sumana Roy, a faculty member at Ashoka University (Haryana, India). She introduced her literary career with her nonfiction debut, *How I Became A Tree*, published by Aleph in 2017. She transitioned to fiction with her first novel, *Missing* (2018), followed by *Out of Syllabus: Poems and My Mother’s Lover and Other Stories* in 2019. Her contributions extend to renowned publications like *Granta* and *The LA Review of Books*.

Residing in Siliguri, India, she remains a noteworthy figure in contemporary literature.² This section will focus on Sumana Roy's poetry collection, *Out of Syllabus*.

As Sumit Ray writes,

Out of Syllabus is a collection of thirty-five delectable poems. [...] the collection is a feast for the senses. [...] the book 'combines rational ordering with the 'unreason' of striking figures of speech'. This 'rational ordering' comes from the sectioning of the poems under subjects that one would usually study at the high school level. Starting with Mathematics, she goes through History, Chemistry, Biology, Physics, Geography, General Knowledge, etc. right up to Art. Interestingly, there's no First Language, but only Second Language. (Ray 2019)

Within the designated section of the collection, "Botany", Roy assumes the role of a 'humanist' scientist, delving into assumptions that surpass conventional scientific explanations. In the course of this thematic exploration, a recurring motif surfaces: that of the anthropomorphization of nature and pure metamorphosis, notably emphasised by the story of "the seven Champa brothers" (Roy 2019, 262). This theme gains further emphasis through two additional factors: the first, previously discussed (see § 1), involves the *gechho bhoot*, while the second revolves around the semantic field employed to depict trees as if they were human beings (evidenced by phrases such as "plants must have a mother tongue?" p. 262, the soil turning red due to the blood of trees pp. 265-6, trees working thanks to the Earth's haemoglobin, "flower corpses in the earth's mass coffin" p. 266, "Does the garden know every plant in it?", "decapitated shrubs" p. 267). Sumana Roy's exploration of metamorphosis finds parallels in classical literature, such as Ovid's *The Metamorphoses*, Dante's *Divine Comedy*, and Edmund Spenser's *The Faerie Queene*. Her approach uniquely ascribes human-like qualities to trees, endowing them with emotions and memories. She portrays trees as active participants in their environment, challenging anthropocentric views and emphasising the interconnectedness of humans and nature. This perspective aligns with Iovino and Oppermann's insights in "Material Ecocriticism: Materiality, Agency and Models of Narrativity":

The agency of matter, the interplay between the human and the non-human in a field of distributed effectuality and of inbuilt material-discursive dynamics, are concepts that influence deeply the ideas of narrativity and text. If matter is agentic, and capable of

² New Writing. "Sumana Roy". <https://www.newwriting.net/writer/sumana-roy/>.

producing its own meanings, every material configuration, from bodies to their contexts of living, is ‘telling’, and therefore can be the object of a critical analysis aimed at discovering its stories, its material and discursive interplays, its place in a ‘choreography of becoming’. (2012, 79)

This assertion directs our attention to another pivotal proposition, namely,

All matter, in other words, is a ‘storied matter’. It is a material ‘mesh’ of meanings, properties, and processes, in which human and nonhuman players are interlocked in networks that produce undeniable signifying forces. (Iovino, Oppermann 2014, 1-2)

This implies that plants, in contrast to the anthropocentric perspective that deemed non-human entities as “passive, inert, unable to convey any independent expression of meaning” (2014, 2), are also ‘storied’. In Sumana Roy’s poetry, trees can be seen as ‘trees-body-of-themselves’, serving as repositories of memory that encapsulate past, present, and future life.

3.2 Close Reading of the “Botany” Section

The subtitle of the section “Botany”, a section divided into three parts, signalled by Roman numbers, “The Afterlife of Trees and Their Lovers”, underscores the focus on the continued existence of trees rather than their demise. The emphasis lies in how plants endure, carrying with them memories and symbolism. The narrator introduces the notion of a plant language, questioning, “plants must have a mother tongue?” (Roy 2019, 262), which they perceive as “a foreign language” (262). The subsequent exploration adopts a dwelling perspective, highlighting the cultural nuances in the meaning of the word plant. For instance, it is noted, “To the aborigines, the words for tree and house were the same” (262). This perspective aligns with the *Jathera* ritual, where trees are regarded as guardians of ancestors. This challenges Western rational epistemological perspectives. It establishes a parallel between the concept of Jagadish Chandra Bose’s house, the abode of the Indian physicist and botanist, and the indigenous outlook: “And so this mountain house of Jagadish Chandra Bose” (262). This reference is already present at the outset of the poem: “Jagadish Chandra Bose’s house, Mayapuri, Darjeeling” (262). The intended meaning behind this comparison becomes evident later on: “It is difficult to imagine a history of trees without man in it. Man as tree, tree as tale” (263). This idea prompts the narrator to delve into a folk tale, particularly that of the seven Champa brothers. This

assumption is rooted in their query: “It is easy to turn this into a folk tale, to see the scientist reincarnated as a tree. Like the seven brothers Champa?” (262). Understanding this aspect necessitates familiarity with the story of the seven Champa brothers which is set in a kingdom where a king, desperate for an heir, receives magical mangoes from a forest priest. The king follows the priest’s instructions to feed the fruits to his wives. While the elder queens, consumed by disbelief, do not conceive, the younger queen gives birth to octuplets during the king’s absence. Jealous, the elder queens bury the babies, who transform into flowers. The youngest, Parul, is born later, hidden from the elders. Raised in the forest, Parul learns her origin and revives her flower-born brothers into princes (Choudhury 1999, 285-7). In contrast to the narrative of the seven Champa brothers, the narrator underscores: “But they were tortured; not Bose” (Roy 2019, 263).

As plants endure through human catastrophes, the narrator seeks “immigrants, plants who travelled well” (262). These are plants that have functioned as “Bose’s muses” (263). Indeed, “Plants are living things” (263). Consequently, as the narrator ascends, “the sacrifice of grass, the silence of soil” (263) occurs beneath their feet. Moreover, with a scientist’s gaze, a crucial phenomenon is observed: “Sometimes a different time zone - flowers are late risers” (263). Just as there are various time zones globally, there are also distinct time zones for flowers, emphasising their active nature. This aspect underscores the sense of belonging to a place, akin to questions of identity within a nation-state context. The narrator concludes by posing the question: “Do these conifers remember Bose?” (264), raising inquiries about the presence of memory in plants. Hence, plants exhibit affective agency. Ultimately, a definition of botany is provided: “Botany is only a history of the personality of plants” (265).

The second part takes place at “Shakti Chattopadhyay’s house, Baharu South, 24 Parganas” (Roy 2019, 265), the residence of a Bengali poet notable in the field of eco-poetry. This part commences with a thought-provoking question. The narrator speculates whether the poet Chattopadhyay would ever pose this question: “Are you General or Scheduled Caste?” (265). The categorization into general, unmentioned, and scheduled castes is delineated in the Indian Constitution under Article 341. This classification was instituted to uplift disadvantaged classes in response to the pervasive caste system. This query pertains to the betel nut tree (*Areca catechu*) (265): the poet Chattopadhyay was a proponent of green poetry and harboured a profound love for trees (Sengupta 2005, 5). The narrator raises the question of whether the Brahmin poet from another caste could openly express inter-caste love by inscribing it on a tree trunk like a government census roll (Roy 2019, 265). The exploration of caste in this context highlights a significant nuance. Typically, when considering castes, the association is made with individuals. However, in

this instance, Roy associates caste with a non-human entity, namely trees. Through this approach, she places trees at the narrative forefront, attributing to them an active materiality and relational agency.

Each morning, the earth transforms into a “mass coffin” where “flower corpses” are interred by the “sweeper” (266). The narrator refers to Chattopadhyay’s poem title, “Does the garden know every plant in it?” (267), using it as an intertextual reference to inquire if the garden is aware of each individual tree. In this poem, the narrator highlights Chattopadhyay’s deep love for plants in the metaphorical “enormous garden” (Sinha 2018, 4). However, ambiguity arises as to whether this garden is tangible or exists only in the poet’s imagination, given later verses expressing concern about a mind seeking pleasure, suggesting a metaphorical realm (4).

In the concluding remarks of this section, the assertion that “Every tree is a folk tale” (Roy 2019, 267) prompts readers to ponder the complex interplay between humans and nature, emphasising the possible discord or unease arising from the existence of trees in specific surroundings. The tone and significance of verses convey a feeling of contemplation, irony, and comprehension regarding the dynamics between the natural realm and human conduct. This reflection is heightened by the closing line: “Only some shed their morals like leaves” (267). This implies that trees, in addition to their physical presence, also serve as moral instructors for human existence.

The third section delves into the Buddha Tree (*Ficus religiosa*) and the site of Buddha’s enlightenment, the “Bodhi Tree, Bodh Gaya” (267). This tree is surrounded by various myths, akin to “ambulance sirens” (268), attracting numerous “patients, pilgrims, and tourists” (268). The narrator reflects on the significance of sitting under a tree, emphasising the amalgamation of shade and shadow as a healing experience: “There must be something about sitting under a tree, in the bandaged conflation between shade and shadow” (268). A notable observation contrasts the Hindu mythological tradition of forest exile with Buddha’s deliberate choice to sit beneath a solitary tree:

Other men chose exile in the forest, vanwas—
Rama, the five Pandava brothers, their wives.
Only Siddhartha came to a solitary tree, to escape desire. (268)

The rationale for this choice is further elucidated a few verses later, highlighting the forest as a place of concealment and rivalry. In contrast, the solitary tree symbolises a lesson learned by Buddha – the futility of eyes, legs, combs, and words (268). Conversely, trees embody Buddha-like qualities, especially in perilous situations where they withstand bombing without fleeing (269).

The poem concludes with a potent metonymy: “Only I know that the tree is Buddha. And that the Buddha was a tree” (270). In this

instance, the Bodhi tree itself serves as a representation of Buddha, emphasising the intertwined identity of man and tree, where Buddha, in the past, was the tree.

4 Conclusion

Sumana Roy's *Out of Syllabus* delves deeply into the intricate relationships between humanity and trees, intertwining cultural, historical, and ecological narratives. The collection challenges conventional Western perspectives, emphasising the active agency, storied nature, and affective presence of non-human entities, particularly trees. The "Botany" section sheds light on different trees and their cultural significance, emphasising their role in shaping individual and collective identity. The dwelling perspective, rooted in indigenous practices and postcolonial critiques, underscores the interconnectedness between humans and trees in shaping local identity. The collection posits that trees transcend mere objects of exploitation, embodying active participation in the narrative of a place. Sumana Roy amplifies the indigenous understanding of trees as living entities with memories, fostering a nuanced ecological consciousness. The integration of perspectives from poets like Shakti Chattopadhyay accentuates the multifaceted connections between nature, spirituality, and human existence.

The exploration extends to sacred trees, exemplified by the Bodhi Tree (*Ficus religiosa*), highlighting the profound interplay between nature and religious or spiritual experiences. In this context, trees are not passive entities; instead, they constitute essential elements actively influencing mental landscapes, or more precisely, mindscapes, as per Lingiardi's terminology, and shaping human engagement. The conclusion emphasises that, in this intricate interplay, places and landscapes should be perceived as complex temporal-spatial-material processes, interwoven with social, cultural, and symbolic meanings. Individuals navigate these landscapes, feeling the affective resonance of what they see and experience. The Bodhi tree (*Ficus religiosa*), sacred and inseparable from the existence of the Buddha, serves as a poignant example of the integral role trees play in shaping both personal and collective identities within the intricate tapestry of human-environment interactions. *Out of Syllabus* thus stands as a compelling invitation to reconsider our relationship with the natural world, fostering a more profound understanding of the agency, memory, and affective presence of trees in the intricate fabric of our existence.

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Sikkim's Moving Landscapes Towards Non-Human Agency Scenarios for the Future

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Abstract Sikkim is a small state in India, bordered by China (Tibet), Nepal and Bhutan, known throughout the Himalayas as a biodiversity hotspot and a *beyul*. The history of Sikkim is the story of a vibrant and sacred territory made by multi-species relationships, of a landscape influenced by both human and non-human agencies. Within the sacred topography of Sikkim, conflicts between humans and the environment are not uncommon, and humans often do not emerge as the victors. The consequences of neglecting the relationship with the non-human communities manifest not only in the spiritual but also in the physical and everyday landscape. 'Moving landscapes' can serve as a model to encourage people to reflect on the consequences of their actions and to consider what steps need to be taken to protect the fragile balance of the landscape before it reaches a breaking point. The examples and data presented are from the last field trip to Yuksam (West Sikkim) in May 2022.

Keywords Environment. Sacred ecology. Animated landscape. Moving landscapes. Beyul. Sikkim.

Summary 1 Introduction – 2 Non-Human Agency and Anthropogenic Disturbance in the Animated Landscape – 3 Conclusions.



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1 Introduction

In May 2022, I embarked on a research trip to Sikkim with the objective of gathering and analysing ethnographic data pertinent to my master's thesis, which was subsequently titled *A Shamanic and Buddhist Ontology. A Case Study of Environmental Ethics in Sikkim (India)*.

The circumstances that led me to become interested in Sikkim and the Himalayan environment are varied. They can be roughly summarized into three categories.

1. An interest in the themes of the ontological turn, encompassing shamanic and environmental issues.¹
2. A basic understanding of the significant themes of Buddhism, and the idea that the theoretical contradictions between Buddhism and shamanism could be set aside, as both ontologies postulate a non-anthropocentric worldview. With regard to this matter, Balikci (2008, 4) presents a compelling argument that Buddhism and shamanism coexist in village realities in a more fluid and less dichotomous form than is commonly assumed from literary sources, on the basis of a strong "shared worldview, which links the body, the territory, society and the supernatural". Mumford describes this presence as an ancient matrix, apotropaic and non-soteriological, dating back to a form of pre-Lamaistic shamanic religiosity, upon which the Buddhist ethical apparatus was subsequently superimposed (Lepcha, Torri 2016, 147; Torri 2021, 185; Mumford 1989). The result of this peculiar combination has brought to light a particular intersection of perspectives on reality, which Torri (2021, 185) does not hesitate to define as animistic.² The most significant manifestation of this is the particular relationship with the environment and the myriad non-human beings that inhabit it. In particular, the bond of Sikkim's first inhabitants, the Lepcha, with the sacred landscape and non-human entities is experienced as true kinship (Torri 2011, 154). The territory is regarded as sacred due to its animate and inhabited nature, with a multitude of non-human beings

1 The authors of the Ontological Turn, which emerged as an alternative to Geertz's interpretive anthropology, have explicitly claimed a series of breaks with Western metaphysics and its implicated dualisms: culture and nature, subject and world, humans and non-humans. Following postcolonial studies and embracing the new sensibilities of ecological thought, they aim to abandon the idea of interpretation and take native worlds seriously. This shift from epistemology to ontology, with a strong anti-representationalist intent, pivots on the so-called "Amerindian perspectivism". For further reading, it is recommended consulting the following authors and texts: Brigati, Gamberi 2019; Descola 2020; 2021; Latour 2020; Viveiros De Castro 2004; 2019.

2 Drawing on Bird-David's interpretation of animism as a relational epistemology. See Bird-David 1999, 67-91.

present and influencing daily interactions, particularly in moments of illness or misfortune (Torri 2015, 258). The landscape is not merely a passive backdrop but an active participant in these interactions, with a sense of intentionality and agency. It is a complex assemblage of presences committed to a dynamic and ongoing process of exchange and engagement (Torri 2021, 183, 195). It seems reasonable to posit that such a worldview is non-anthropocentric, given the dynamics that create a thick interdependency among the villagers and the non-human communities of Sikkim.

3. Finally, the hypothesis that the coexistence of shamanism and Buddhism could form the basis of an environmental ontology. The ontological landscape thus conceived conceives a world not dichotomised by the antithetical opposition between nature and culture (as this dualism has been understood in modern Euro-American society, starting from the developments of Cartesian philosophy).³ This results in the possibility of an animated landscape composed of a community of actors, both human and non-human, capable of mutually recognising their agency on an equal level. Such a possibility implies that the aforementioned animated landscape would not support the division between a subject of knowledge and an object of knowledge.

Following preliminary research to identify a study area relevant to my research interests, I noted that Sikkim possessed all the necessary prerequisites to conduct a case study in the desired field. However, between the end of 2021 and the beginning of 2022, some of the most restrictive travel limitations were still in place due to the regulations implemented to counter the Coronavirus pandemic. The process of travelling was considerably challenging, as commercial flights had not yet been reinstated (up until that point, travel was only permitted for essential purposes), and the acquisition of an entry visa for India was a complex endeavour. In the initial weeks of March 2022, the gradual resumption of commercial flights was initiated, extending beyond the European Union to countries still considered at risk. Additionally, another challenge emerged: until the early months of February 2022, access to Sikkim was prohibited to all non-residents, primarily tourists. When the conditions appeared

³ The influence of Cartesian-Kantian philosophy has led to a gradual complication of epistemology and a simultaneous simplification of ontology in Western society, leading to the emergence of an absolute dichotomy: *res extensa* and *res cogitans*, nature and culture (Viveiros De Castro 2019, 139-40). The result of modern ontology's reduction is the pacification and silencing of things, their deprivation of autonomy, power, and agency; thus, the relegation of matter (nature) to a role of total passivity and indifference.

to be relatively optimal for planning a research stay, given the still relatively uncertain situation, I devised a travel itinerary that would take me to Sikkim for a month, from May to June. Originally, I was scheduled to conduct the entire research period in the Restricted Area of North Sikkim known as Dzongu. However, due to the Coronavirus pandemic and low tourist flow, an unforeseen difficulty arose, making it impossible to obtain an entry permit. Consequently, it was necessary to temporarily relocate to the capital, Gangtok (East Sikkim), and identify an alternative site that would be compatible with the research. Ultimately, the decision was made to select Yuksam. Its population is currently composed mainly of Lhopo (Bhutia) and Nepali groups, although there is a significant Lepcha community both within the inner perimeter and in the more peripheral areas of Yuksam.⁴ As the administrative centre of the Khangchendzonga National Park and the base camp for trekking to Mount Khangchendzonga, Yuksam experiences a significant influx of mountaineers from across the globe. The inhabitants of the village, as stakeholders in the preservation of biodiversity in the Rathong Chu valley, have played a significant role in the development of ecotourism in the area. The village has been particularly successful in promoting ecotourism not only in the region but also in other similar areas in Sikkim. Yuksam is thus considered a model village for ecotourism.

The ethnographic data referenced below are the result of qualitative research based on the exclusive use of unstructured individual interviews. Wherever possible, triangulation of sources (both oral and documentary) was employed, comparing what emerged during one interview with what was said in other conversations. The methodology employed led to the identification of informants who, despite my initial reluctance to define them as such, were nevertheless able to provide insights that were valuable to the research. Efforts were made to diversify the types of participants in verbal exchanges as much as possible, with interviews conducted with community members from various ethnic groups, including Lhopo (Sikkim Bhutia), Lepcha, Sherpa, Nepali, and Tibet's Bhutia. The socio-economic status of the interlocutors was also considered. This included entrepreneurs in the tourism sector, teachers, local government officials, academics, employees of a national NGO with a local branch office in

⁴ Bhutia, also known as Lhopo (from *Lhopa*, 'people from the South'), or Denjongpa, meaning 'inhabitants of the fertile valley' (from *bras mo ljongs*). It is used to refer to any Buddhist community of the Himalayan plateau, from Ladakh to Arunachal Pradesh, that uses a Tibetan dialect (Balicki 2008, 6). The term 'Lepcha' is an exoethnonym created by the Nepali communities. The Lepcha prefer to refer to themselves using the endoethnonym 'mutanchi rongkup rumkup', which can be translated as 'children of the snowy peaks or the gods' (Bentley 2007, 59). They also refer to themselves as *rongkup* (children of the mountains) or *rongagit* (*Rong* tribe) (Torri 2011, 149-65).

Yuksam, taxi drivers, and journalists. Additionally, the context in which the interlocutors operated was taken into account. This included secular or spiritual contexts, such as that of lamas and shamans.

Due to the incisiveness of some of the statements made, which appeared to be consistent with one another and highly pertinent to my current research, I was compelled to consider their words and ideas and to rely on their assertions. Although the total number of interviewed individuals, who were predominantly rural low-middle class, did not reach the standards necessary for quantitative analysis, this was compensated for by repeated interviews with the same interlocutors (sometimes scheduled, other times spontaneous and casual).

Consequently, in the early days of May 2022, I reached Yuksam, the first capital of Sikkim when it was still a sovereign state ruled by a Buddhist monarchy. My objective was to conduct research for my dissertation on Lepcha shamanism and esoteric Buddhism. My research aimed to gain a deeper understanding of the interrelations between religious cosmologies and the native ecosystemic microcosms. I was driven to think that the environmental landscape had been somehow mirrored in the spiritual landscape. For this reason, it was essential to delve into further comprehension of a landscape made up of multiple parts, driven by exchanges and countless interactions (of cooperation, predation, symbiosis, parasitism). Each component of the system, or agent, exhibited a capacity to act upon the environment and to perceive the direct and indirect consequences of existing relationships. The fundamental principle underlying any interactive process being a simple yet effective mechanism based on the exchange of matter, energy, resources, and possibilities. However, this relational equilibrium has an inherent fragility that tends to cause changes in the flows of forces that permeate the environment.

Although human/non-human contacts are not new in the daily life of the Sikkimese, there are situations where one is confronted with a thinning or dissolution of the boundaries between the village - the anthropized environment and domestic life - and the world of the jungle - the wild and untamed (Beggiora 2021, 205-6; Thapar 2001, 1-16). In these cases, it is not uncommon to witness upheavals in which the two parties coming into contact - man and nature -⁵ enter into a momentary situation of conflict in which one ends up exploiting and taking from the other. In general, the areas of the Tibetan plateau are

5 On the one hand, there is the geo-anthropised environment, comprising human collectives settled in given territories. The mere presence of these collectives can impact the environment, making the dominant signs of human agency evident. Conversely, there is the animated landscape, which comprises areas where human agency constitutes only a fraction of a diverse set of agencies (primarily non-human). This results in a state of continuous and extensive interrelation where exchanges between the parts are perceived to occur within a subtle, numinous, and sacred dimension.

well known for their long history of conflict between man and the environment. The relationships that have developed over the centuries between Himalayan communities and the ecosystems they inhabit were initially characterised by conflict: human groups struggled to survive in an environment characterised by very harsh climatic conditions and a geographical terrain that was highly unsuitable for human life (Terrone 2014, 466; Gergan 2017, 494).

Soon, however, it became clear that man could not win a war against the land itself and the natural elements, and it was realised that the very conditions that made human existence very difficult were the same factors that, under more favourable conditions, could ensure the flourishing of life. The relationship between man and the Tibetan mountain environment was transformed, shifting to a softer form of relationship compared to the initial one, which had been based on brutal competition for power. Himalayan communities began to recognise the superiority of the land and the power of the elements on which their fate could easily depend, but above all they became more aware of the importance of the resources that the land offered. It was precisely with the aim of continuing to acquire the resources necessary for survival that the relationship developed (Terrone 2014, 477). Men began to pay regular homage to the mountain deities in order to obtain their favour or to appease their occasional wrath, which sometimes erupted when man committed morally unacceptable acts - that is, when he violated certain environmental taboos: i.e. polluting places considered particularly sacred; appropriating the fruits of the earth or the spoils of hunting without first performing the appropriate propitiatory rites; in general, any action that could in any way be considered a precursor of transgression, of crossing that thin and almost invisible line that marks the separation between wild and domesticated spaces.⁶

This new relationship with the deities and spirits of the landscape aimed to resolve moments of difficulty through negotiation and compromise: in order to continue to have a good harvest (or even one not destroyed by bad weather or other external factors) or a successful hunting trip (or even a hunting trip completed without unpleasant incidents), the benevolence of the mountain deity was sought through prayers, rituals and offerings; likewise, in the event of problems or potentially serious situations, prayers, rituals and libations were used as a means of quelling the anger of the entity involved and attempting to appease it.

In the case of Sikkim, the above is also true, of course. We can affirm that in Sikkim there are two traditional - and complementary - ways

⁶ Little 2007, 81-98; Balikci 2008, 27-8, 118-19, 121, 217; Scheid 2014, 72-83; Spoon 2014, 431-56; Torri 2015, 255-6; Bhutia 2019, 191-206; Torri 2020, 173, 176.

of healing the occasional disturbances in the balance between human and non-human groups. On the one hand, one can rely on faith in Padmasambhava and the protection he grants to all the inhabitants of Sikkim, even resorting to specific rituals in which the lamas invoke prayers to the deities of the Buddhist pantheon and offer libations as a sign of peace to restore cosmic harmony.⁷ On the other hand, the knowledge of Lepcha shamans (almost interchangeably called *bongthing*, *mun* or *padim*) can be used to identify the subtle causes that have led to a breach in the never quite stable boundaries between human and non-human beings. Indeed, shamans seek to connect with non-human agents in order to identify the entities responsible for the ongoing problem.

2 Non-Human Agency and Anthropogenic Disturbance in the Animated Landscape

What has interested me most in this rich discourse of multi-species relations are the so-called 'moving landscapes'. I believe that the concept is of considerable relevance – especially within the broader scope of the Anthropocene – in terms of ecology, nature and the environment, and that it can provide a very valid tool for rethinking the ways in which human groups interact with non-human entities.

First of all, what is meant by a 'moving landscapes'? The term 'moving landscapes' is seemingly employed to describe a category of short narratives belonging to the religious folklore of the Himalayas (in this case, Sikkimese) that deal with the idea of physical and spiritual contamination of a place recognised for its particularly sacred qualities, perpetrated by human beings.⁸ In response to these acts of corruption and pollution, these sites undergo drastic transformations, often resulting in unfortunate or even tragic outcomes for humans.

In the foundation of the Sikkimese cultural landscape, any action that may create a disturbance in the social and natural equilibrium – in other words, that may tend to disturb in any way the spirits and numinous entities that are at one with the land – is considered a source of what we might define as moral pollution (*drib*); a kind of corruption that exists not only on the ethical and spiritual level but, indeed, primarily on the material level (Balikci 2008, 27, 92, 121; Torri

⁷ Padmasambhava is also known as Guru Rinpoche, Lopon Rinpoché, Ugyen Rinpoché, Padma Vajra, Padmakara, Padma Thôtrenng Tsal, Senge Dragdrog, Loden Chogsey, Shakya Senge, etc. He is considered to have pioneered the spread of Tibetan Buddhism across the Himalaya, including Sikkim.

⁸ Employed by Evershed and Fish (2006, 56), with a general bibliographic reference to Mullard 2003, 13-24.

2015, 256; 2020, 178).⁹ Any human action that is detrimental to the environment, even if unintentional, is fundamentally capable of dramatically altering the flow of the never-ending exchanges between the various agencies present in the landscape; specifically, we are talking about those anthropogenic interventions where man's selfish desires (but also lack of awareness) can lead him to adopt an aggressive approach in order to extract more resources from the land than necessary (Spoon 2014). There are environmental taboos that must be respectfully observed to ensure that watercourses and glaciers are not polluted, that plant and animal populations do not experience drastic fluctuations, that the cycles of nature can continue to unfold in their eternal becoming. It is possible to gain insight into the nature of environmental taboos by examining the accounts of various authors.

Anna Balikci, for instance, recounts one episode concerning the lake near the village of Tingchim (North Sikkim). The lake's sanctity and the village's feelings towards it were well illustrated in an incident involving a team of moth collectors from Darjeeling. The villagers believed that the moths that would be found flying around the lake at night were manifestations of supernatural beings and that capturing any of them would have dire consequences for the villagers and the researchers alike (Balikci 2008, 92).

Kerry Little provides examples of environmental taboos related to hunting and fishing among the Lepcha. For example, hunters will observe such taboos, such as the taking of only one prey, with the offering of prayers and gifts for another prey to be taken in the next hunt. Additionally, there are numerous habitat taboos in Dzongu that are off-limits to hunters and fishermen. One such example is a small lake in Lower Dzongu called Tung Kyong Duo, which is the habitat for fish believed to be the ancestors of the Lepcha clan, Hee Youngmingmoo. The small, silvery fish is never eaten by Lepchas, since they view the lake as an ancestral home and refrain from harvesting the fish (Little 2007, 93-4).

Finally, Jeremy Spoon presents examples of environmental taboos among the Khumbu Sherpa of Sagarmatha National Park (Nepal). These taboos include prohibitions on climbing the mountain home of

⁹ The argument presented by Torri relies on the interpretation of the concept of *bla gnas*, citing Huber: "The association with mountains and lakes constitutes a well-known feature of Himalayan and Tibetan *weltanschauung*, and it could be linked also to the theory of the *bla*, and the related concept of *bla gnas*, the 'place of the soul'" (Torri 2015, 256). "Vernacular beliefs maintain that individual or collective human life energies can be stored, hidden, or tied to specific traits of the landscape, like trees (*bla-shing*), stones (*bla-rdo*), or even animals (*bla-sems-can*), or even mountains and lakes (Huber 1999). Any kind of contamination, damage, or pollution affecting the *bla gnas* will reverberate on its human counterpart (Torri 2020, 56)" (Torri 2020, 178).

Khumbila (Khumbu deity), cutting trees, mining boulders, and polluting riparian and other aquatic ecosystems (Spoon 2014, 439). The reverence of Khumbila has resulted in beneficial environmental outcomes, including a prohibition on climbing the deity's alpine home and restrictions on the killing of livestock, which is often extended to other wildlife (441). Furthermore, they enacted taboos against the harming or killing of animals, discouraged the pollution of water sources, protected rock formations, and restricted the climbing of Khumbila (445). In traditional times, the management of natural resources was governed by a series of taboos, including restrictions on harvesting timber and non-timber forest products, as well as prohibitions on harming or killing animals, mining boulders, and polluting water sources (450).

I was able to document several examples of environmental taboos that are still observed by the Lepcha community of Yuksam. In most areas, including the forest, there are numerous spirits. Prior to harvesting corn, the community offers the crop to the gods. This offering is made after the corn has reached the appropriate stage of ripeness. The community requests that the gods accept the offering and refrain from harming anyone who might subsequently harvest the corn. The community's actions are guided by the understanding that spirits may be present in any location. Therefore, it is important to avoid placing one's hands in any area where spirits might be present. For the very same reason, it is advisable to exercise caution when entering the fields. If one's hands are not kept close to the body and touch something, such as ginger, the result can be a burning sensation in the hands and legs, preventing one from working and moving one's hands. This phenomenon is indicative of the continued presence of spirits in Mayel Lyang.¹⁰

Should we offend them, for instance by removing the cucumber and consuming it, we may suffer from diarrhea, stomach pain and other ailments.¹¹

Violation of these environmental taboos can have very serious consequences; in the worst case, a numinous entity living in a particularly sacred area may become so angry that it decides to leave its current abode forever and move to a completely different area. The consequences of such an action would be catastrophic for all the inhabitants of the area, not only from a religious point of view, but also

10 A legendary place of Lepcha people that lies on the lap of Mount Khangchendzonga from where they are believed to be originated from.

11 An extract from an interview with Lamit Lepcha and Jampo Bongthing, Yuksam, May 2022.

on an ontological and ecological level, since the gods and spirits living in the animated sacred landscape of Sikkim are the landscape itself. In Sikkim, the very idea of a place deprived of the blessing and presence of deities and spirits is frightening, both from a Buddhist perspective and from a shamanic vision, as it corresponds to the image of a place that has lost all connection with the *dharma*, with Guru Rimpoche, with the subtle entities that have always been part of the fabric of the world.

Certainly, examples of such phenomena, known as 'moving landscapes', can be found in the cultural and folklore heritage of Sikkim. The most striking and famous example is Khecheopalri Lake. Khecheopalri is a village near Pelling in West Sikkim, where there is a lake that serves as a meeting place not only for Buddhist devotees but also for Hindus. The lake is famous throughout Sikkim because its waters are believed to have miraculous properties, being a place where great spiritual power resides. There are several versions of the myth of the lake as a 'moving landscapes', but the common thread seems to be a respect for the purity – not only moral but also physical – of the lake environment. Both Evershed and Fish (2006) and Jain (2004, 297) cite the popular legends of Khecheopalri Lake. Rahaman states that "many legends and beliefs are associated with the formation, existence, and sacredness of Khechopalri Lake" (2015, 60; 2019, 4841). While the former authors do not specify any sources, oral or written, Rahaman reports that the version of the Khecheopalri legend he documented was transmitted to him orally by a lama.

According to Jain's account, there were two sister lakes in the north-western part of the Himalayas. The elder lake is still extant, but the younger lake, which is called Labding Pokhari, has migrated to the western part of Sikkim to a place called Yuksam. The people in Yuksam did not respect Labding Pokhari and deposited waste into her waters. The goddess was dismayed and moved the lake to a place called Chhojo. However, this location was unsuitable, so the goddess relocated the lake to Khecheopalri. Apart from the marshy land with terrestrial vegetation, the dead Chhojo Lake, located at the bottom of the hill, has no open water surface (Jain et al. 2004, 297-9).

An oral history narrated by a young lama to Rahaman of the Khecheopalri monastery during fieldwork indicates the presence of two sister lakes in the northwestern part of the Himalayas. The elder lake is still present, but the younger lake migrated to the western part of Sikkim in a place called Yuksam (the first capital of Sikkim) and settled in Labding Pokhari. The people of Yuksam did not respect the Labding Pokhari and disposed of waste into the lake water, which caused the goddess to become dissatisfied and to move to the place called Chojo. However, this location was unsuitable, and the goddess was forced to move again, this time to the present location called Khechopari. The Chojo Lake is still visible at the lower

end of the area, with no open surface except for marshy land with terrestrial vegetation (Rahaman 2015, 60; 2019, 4841).

In the short version given to me by Lama Tshering, the monk claimed that in ancient times, the spiritual being that now resides in Khecheopalri used to live in another body of water, the lake that is now in Yuksam, known as Kathok Lake. Due to a series of actions by the local people that displeased the spirit, it is said to have suddenly moved overnight in search of a new sacred space suitable to become its abode. The lama wished to emphasise that the effects of morally impure actions have consequences even on the material plane. Corruption, moral and physical, is a formidable force that can spread rapidly and widely. In order for the spiritual power of Khecheopalri to have a beneficial effect on the pilgrims who flock to the holy site, it is necessary that not only the water of the lake and the surrounding forest be pure and immaculate, but on a convergent level, purity cultivated by the devotees and exhibited in heart, mind and action (Evershed, Fish 2006, 56-8).

In fact, respecting this condition can be seen as an alternative way of expressing the same rule we mentioned above: any kind of disturbance (whether the agent is human or non-human) capable of causing disruptions in the fabric of daily life constitutes a suspension of order (mundane, natural and cosmic), the result of which is a situation that is out of phase. In such a situation, the communities inhabiting the landscape found themselves in a temporary communicative incompatibility. At the root of this communicative incompatibility lies negligence (i.e. a failure or lack of due care), not only at the level of intentions, but above all at the performative and practical level. In short, there is the appearance of a possible change in the relationship between man and the environment. In this case, we are witnessing carelessness expressed in a failure to respect a certain idea of physical hygiene that also touches on the realm of spiritual purity.

Indeed, Sikkim is considered by Tibetan Buddhism to be a *beyul*, a land consecrated by the passage of Padmasambhava, or Guru Rimpoche (Dokhampa 2003). As Bhutia promptly points out, there are multiple interpretive possibilities regarding the idea of *beyul dremojong*. Some support the idea of a hidden valley, while others see the *beyul* as a 'paradise' accessible only to the pure. Still others identify it with a dimension of peace and bliss. The concept remains open to theoretical exploration (Bhutia 2022, 18). The influence of the notion of *beyul* is so ingrained that every calamity, big or small, is directly associated with it, as is almost every festival (27). The belief in the *beyul* entails the conviction that Guru Rinpoche bestowed a blessing upon the Sikkimese territory. Consequently, the necessity of renewing, year after year, the sentiment of devotion and respect for the *dharma* is perceived as a means of maintaining the protection of the guardian deities (27).

The great tantric master recognised Sikkim as a lush and fertile land, ready to offer refuge to those seeking shelter from war, famine and disease. Guru Rimpoche consecrated Sikkim to Buddhism, but what is particularly interesting for our discussion is the way in which he did so. He first addressed those places of power in the local territory, those places where emanations of the numinous and subtle world could be felt, which had been objects of worship or veneration long before his arrival. Padmasambhava thus inscribed the animated sacred landscape of Sikkim and its hosts of beings (human and non-human) within Buddhist cosmology, creating a sacred topography in which every nook and cranny fell within a map organised according to the model of a *mandala*, an esoteric projection used to represent a microcosm in the form of a diagram applied to a geographically localised space (Chiron 2020).

In this way, the tantric adept achieved two results. On the one hand, he introduced a new order into the animated landscape, redefining the pillars of relations between human communities and the environment: the seemingly disorderly and overwhelming power of natural forces could be recomposed within the moral order of Buddhism. This did not mean, however, that the non-human world was denied agency; on the contrary, it continued to exert its influence on humans and the environment. The novelty lay in the possibility of identifying the internal (spiritual and moral) order with the external order: the construction of the sacred topography creates a physically ordered territory that is constantly purified of all impurities and elements that might constitute an affront to propriety. This dichotomy between that which is pure and that which is polluted or corrupted applies in practice to the relations between human communities and non-human inhabitants, since the landscape is not perceived in an abstract sense, but it is itself the sum of multiple agencies in constant interaction with one another.

The one other element introduced by Guru Rimpoche was a consequence, probably indirect, of his initiative to spread his teachings in Sikkim. He scattered relics (known as *gter-ma*) in certain places charged with power (and thus considered sacred or numinous even before his arrival), and to facilitate the spread of the *dharma*, Padmasambhava included in the sacred texts the temporal dimension so that the message of the doctrine could be continually renewed and understood in the light of different epochs (Beggiora 2023, 88). These texts have the capacity to lend themselves to a flexibility of interpretation aimed at capturing variations in the temporal dimension, enabling those who follow his teachings to know and make the most of the characteristics of the different times in which they are destined to live. The consequence, perhaps indirectly, is that a renewed adaptability of the tantric teachings has breathed new life into the animated landscape. Thanks to the possibility of reinterpreting the sacred

texts in ever new ways as the epochs change, *mutatis mutandis*, the nature of the relationship with non-human collectives remains in a state of being protectible and protectable.

The discussions with Lama Tshering were very helpful in giving me an idea of the applications of the concept of the 'moving landscape' in relation to the current conditions of the animated Sikkimese landscape in the light of the country's increasing modernisation. Sikkim is not only an inter-Himalayan pilgrimage destination for Buddhist and Hindu devotees (precisely because, as mentioned above, it is a *beyul*), but also a tourist destination for those seeking a relatively untouched Himalayan landscape compared to the intrusions of human activities.

As I have been able to document - thanks to conversations with some of the residents of Yuksam who are particularly interested in the issue of tourism - there is a clear awareness among the locals of the economic value that the landscape can have; provided, however, that respect continues to prevail for those relational codes that have allowed for a balanced relationship between the need to extract resources from the territory for one's subsistence without succumbing to the desire for uncontrolled development (Mannarini 2022). Uncontrolled development often leads to the disruption of natural habitats, which are suddenly exposed to much more intense predation than before, but above all to the accommodation of a much larger number of people than they would normally support; this results - and here we come to the point - in the slow erosion of biodiversity hotspots, the degradation of soils in areas that are normally strategic for primary production, and a staggering increase in the production of waste, which, if not properly disposed of, creates further sources of pollution for the territory and for all the creatures that inhabit it. Indeed, there are those who have expressed concern about the potential for rapid changes in the attitudes of the Sikkimese towards the environment, given the extent of anthropogenic interventions currently being undertaken in the region. In fact, according to Bhutia, Sikkimese attitudes towards the environment have changed as the scale of environmental resource extraction has become more apparent with the installation of large-scale infrastructure projects initiated by state projects that were meant to provide the isolated Himalayan state the state with the trappings of global modernity in the late twentieth century (Bhutia 2021, 153). These processes became all the more apparent after Sikkim was absorbed into India in 1975. Road networks and electricity have been accompanied by deforestation, hydroelectric dams, and the concretization of hilly landscapes (McDuie-Ra, Chettri 2020). In addition to rapid urbanisation, infrastructural development and modernisation, Sikkim has undergone a notable transition from a sustainable agrarian economy to a service-oriented one, particularly in the capital city of Gangtok (Indira 2021, 57). This is despite

the fact that approximately 65% of the population relies on agriculture for their livelihood (Mishra et al. 2019).

In her study of ecotourism in the sacred lakes of Sikkim, Maharana (2000) notes that visitor numbers began to increase in Sikkim in 1990 as a result of a relaxation of regulations that opened a number of new areas to both resident and non-resident tourists. Prior to 1980, the state hosted a mere 15,454 visitors. However, this figure had increased five-fold by 1990, reaching 143,410 by 1998 (Maharana 2000, 272). As a consequence of this significant surge in visitors, developmental activities, including the promotion of tourism for socio-economic improvement, have led to noticeable degradation of natural ecosystems where adequate attention has not been given to environmental conservation. In recent years, the condition of lakes has deteriorated as a result of changes in land-use practices and deforestation in lake watersheds. These changes have led to the deposition of sediment, the loss of biodiversity and the removal of valuable ecosystem components (2000, 269). An expected growth in tourism may increase the consumer surplus, but this may be at the cost of the aesthetic, biodiversity and religious values of the lake. Therefore, a balance between consumer surplus and other values for conservation and preservation must be established. In discussing her findings, Maharana swiftly compares the results of her study to those of other sites in tropical India, particularly a tiger reserve in Kerala and a national park in Bharatpur. The latter sites demonstrated that the values accorded to factors such as biodiversity, aesthetics, recreation, and religion were considerably lower than the consumer surplus value (Chopra et al. 1997; Manoharan et al. 1998). Conversely, Maharana's study demonstrated that despite a low visitation rate and a lack of protection, Sikkimese sacred lakes hold the same set of values (biodiversity, aesthetic, recreation, religion) in a higher account, and were in fact higher than those recorded in the tiger reserve in Kerala and the national park in Bharatpur (2000, 276).

With regard to the state of the forests, the majority of the forests in Sikkim are still considered to maintain good diversity, but in the last few decades, there have been visible symptoms of decline in the landscape and species composition at certain locations (Sundriyal et al. 1994a). Among the most significant concerns for the foreseeable future is the composition of species, as it may lead to significant challenges for local residents who rely on the woods for resource extraction and other forms of livelihood. Forests have been meeting and satisfying the material needs of the majority of the population of the watershed, but now evidence of decline in species number and composition are emerging and it is apparent that local subsistence needs are causing much of the degeneration in the forest at all sites. Indiscriminate cutting by people, selective felling by the Forest Department, plantation of exotic species like *Cryptomeria japonica*, lack of

strict enforcement of protection/conservation laws and use of enormous amounts of wood in house construction and large-scale cardamom curing are the most common causes of forest destruction (Sundriyal, Sharma 1996, 131). It is also of interest to note that, as observed by Sundriyal, despite the increasing degradation observed throughout decades, in the past twenty years forestry was not always a priority sector of management for villagers (Sundriyal et al. 1994b). Rather, it was seen as a source of economic generation, which can be attributed to the ease of accessibility and extraction of wood from the nearby forest. Furthermore, it can be observed that community organisation is a key factor in achieving the desired results. This is evidenced by the fact that the lack of community organisation has limited the successful launching of community forestry programmes (Sundriyal, Sharma 1996, 131).

On one occasion, I found myself in conversation with the director of an NGO based near Yuksam, Tshering U. Tshering is very attentive to the issues affecting her community and was able to provide me with first-hand data relating to her direct experience.

Tourism was doing good economically to the communities [...]. If we don't care about the nature then people would not visit here, right? [...] Everybody wants to see the other places where it's peaceful and there's beautiful nature. So, we thought that if we really look for earning some money from tourism we really have to take care of nature. So, to take care of nature then we have to go with conservation and livelihood together. We're looking for the long-term sustainable options on conservation and livelihood. In '96 we worked within the community to figure out why nature it's important, why tourist are coming here. If you want to earn money from the tourism for the long term then you people have to take care of your nature. How you do it? How do you want to go forward for the tourism business?... (Mannarini and Tshering, recording)

The director's remarks about the commitment of Yuksam's community to its landscape, indicating that such a profound involvement by its members has arisen from a profound sense of responsibility, resonates with the objectives of a former project enacted in the past. The *Sikkim Biodiversity and Ecotourism* initiative was initiated in the west district of Sikkim and was supported by the Biodiversity Conservation Network (BCN) under the Biodiversity Support Program (BSP), USAID. The project was a collaborative effort of the G.B. Pant Institute of Himalayan Environment and Development, The Mountain Institute, The Travel Agent Association of Sikkim and the Green Circle. The project aimed to conserve the biodiversity of the project sites (the trekking corridor of the Khanchendzonga Biosphere Reserve in the Yuksam-Goechha La route and Khecheopalri lake) by

providing alternative economic incentives to the local community. The primary objectives of the project were to enhance community and private sector initiatives for biodiversity conservation, enhance the economic returns from community-based and TAAS ecotourism, and improve and contribute to policy-making on conservation and ecotourism (Jain 2000, 6).

From Tshering's words, one can easily infer the commitment and sense of responsibility of the human community of Yuksam towards the non-human collectives, – the set of actors and agents she refers to as nature. It is worth noting the absence of explicit references of a spiritual and religious nature on the part of the director, although I am inclined to believe that this is not a limitation or a contradiction compared to the discourse held so far. The reason I am inclined to argue that there is no contradiction lies in the fact that any social initiative and activity (such as, in this case, economic-enterprise activities based on investments in the goods and services sector) still falls within the sphere of influence of a cosmology (that of the Buddhist *beyul*, sacred topography, places of power and ever-present non-human entities) that continues to shape the matrices of relational flows between humans and the animated landscape. In other words, the animated landscape has been assimilated by the indigenous people of Sikkim and at the same time has served for centuries as a criterion and reference point to guide the choices and actions of human society. Such a relationship between humans and non-human collectives – which, for discursive convenience, we will temporarily define by the term 'nature' – in the Himalayan context is in many ways in stark and direct contrast to the relationship that modern society has historically constructed with nature. Rather than being stripped of all agency and reduced to a passive object in the hands of humans, the environment has retained its primary relevance as a collective of actors capable of performative action in the world, and as a result the human populations of Sikkim have retained the capacity to perceive any attempt at communication on the part of the non-human world.

A clear example of this attention comes from episodes related to moving landscapes, as in the case of Khecheopalri. We can also find examples of such attempts in recent years, when the concerned voices of the indigenous population have been raised in the face of events or projects that threatened to bring about profound changes in the landscape. In 1958, for example, the construction of a road linking Sikkim's capital, Gangtok (East Sikkim), to the main town of Mangan (North Sikkim) was met with deep concern, as the road's construction required invasive interventions in the landscape (i.e. the demolition of several stretches of hilly and mountainous terrain) (Balikci 2008, 92). Or again, since 2007, there have been protests and demonstrations against the construction of a series of dams in the Dzongu

region, the ancestral home of the Lepcha people and a restricted area requiring special permits (Bentley 2021).

As we approach the conclusion, after this long interlude of illustrating the ways in which the indigenous peoples of Sikkim have developed a particular attention to perceiving signals of change in the non-human landscape in relation to their daily and spiritual experience, I would like to return to the issue of pollution (both spiritual and material) to highlight the connections it may have with climate change. In this context, it seems appropriate to mention the meeting I was able to have with a Lepcha shaman (*bongthing*) called Jampo. Jampo Bongthing was very clear about the difficulties of disposing of certain types of waste and emphasised the need to urge people not to discard highly polluting items indiscriminately.¹² The shaman's concerns placed on the same level the risk of serious health hazards to humans and the risk of disturbing natural habitats, leading to subsequent disruption and unrest in non-human communities. Not too dissimilar to what Lama Tshering advocated, actions that are sources of impurity have harmful effects on everyone, without exception, and end up undermining fragile and delicate balances that are difficult to maintain. To provoke the wrath of numinous beings -who are usually benevolent, or at least not actively malevolent, under appropriate conditions - is to deprive oneself indefinitely of a support that human beings cannot do without.

Another testimony I would like to present is from one of my informants, Pema Lepcha, regarding the effects of climate change felt by those families who have a plot of land to cultivate. Pema highlighted several irregularities in the typical climate patterns observed in Sikkim, particularly in precipitation patterns, temperature fluctuations, and the impact of pests on crops. As is the case with many other locations on Earth, the Himalayas are currently experiencing rapid climate change, which is likely to have a significant impact on local ecosystems, biodiversity, agriculture, and human well-being (Chaudhary et al. 2011). The weather has become increasingly unpredictable and erratic, with snow melting rapidly and water sources drying up.¹³ As in many other parts of the world, there is a lack of spatially disaggregated meteorological records in Sikkim. Long-term, reliable data are available only for one station, Gangtok. Climate change-related studies based on the analysis of the data for this station, month-wise, season-wise, and annually from 1957 to 2005 indicate a trend towards warmer nights and cooler days, with increased rainfall except in

¹² Ferronato and Torretta (2019) argued that one of the main reasons for environmental contamination is the mismanagement of solid wastes related to open burning and dumping.

¹³ Sharma et al. 2009; Chaudhary, Bawa 2011; Chaudhary et al. 2011; Tambe et al. 2011.

winter (Seetharaman 2008; Ravindranath et al. 2006; 2011). A comparison of meteorological data from the Gangtok station, spanning 1957 to 2005, with data from the last five years (2006-10), reveals a noticeable acceleration of previously observed trends. Winters are now becoming increasingly warmer and drier, with October to February representing an exceptionally dry period (Seetharaman 2008). As documented in recent climate change studies in Sikkim (Tambe et al. 2011), perceptions held by the local community indicate that climate change has resulted in a notable reduction of rainfall variability, manifested in both a decrease in the temporal spread of rainfall and an increase in the intensity of precipitation events. This has led to a marked decline in winter rainfall, with the monsoon season exhibiting less predictable patterns (Tambe et al. 2012, 64). Furthermore, recent studies in the adjacent Darjeeling hills have indicated the perceived impact of climate change in the form of less snow in the mountains and intense but short episodes of rainfall that increase runoff, causing poor accumulation and recharge of water, thereby resulting in the drying up of water sources (Chaudhary et al. 2011). It has also been highlighted that there is a near-universal community perception that the lean period spring discharge is declining at an alarming rate (Tambe et al. 2012, 68).

It is crucial to bear in mind that Sikkim is a state with a predominantly rural and agricultural economy. Agriculture is the sector where the effects of pollution and global warming are felt most acutely: erratic rainfall patterns; unusual insect attacks on crops; climate variability with uncertain winter temperatures; sudden hailstorms (Shukla et al. 2016). The diversity of flora and fauna is influenced by a number of factors, including climate, rainfall, altitude, and soil types. Of these, climate is the primary determinant (Foster 2001). The evolving physical landscape is also influencing and shaping a novel cultural landscape as a consequence of alterations in existing agricultural and other cultural practices (Huang et al. 2022). There is a growing concern worldwide about climate variability in agriculture (Sahu et al. 2012), including the sensitive Himalayan region, which has been experiencing climate change in recent times (Gautam 2017). This is evidenced by changes in its climatic patterns, which influence ecosystem services (Rai et al. 1994), and other micro-level climatic variability (Tewari et al. 2017). It is widely acknowledged that major climatic parameters such as temperature and precipitation exert a direct influence on agricultural productivity (Asseng et al. 2015). Variations in these parameters' trends could have a profound impact on agricultural production (Malhi et al. 2021). Modifications to the water cycle result in alterations to precipitation patterns, which in turn affect river runoff and nutrient cycles within river basins, including agricultural productivity in the Sikkim Himalaya (Sharma et al. 2016a; 2016b). The second-largest contributors to climate change

are agriculture, deforestation, and land use changes. These activities have resulted in increasing temperature anomalies, global warming, and the occurrence of extreme events worldwide. The changing temperature anomalies have initiated a transformation in global climatic patterns, with a notable impact on agricultural and other ecological services. This intensified in the twenty-first century (Hayashi et al. 2020). Recent studies have demonstrated variability in climatic patterns and trends across the Himalayan region, which has had a negative impact on annual and seasonal crop yield and production.¹⁴

In 2008, the Chief Minister of Sikkim, Dr Pawan Kumar Chamling, while inaugurating a commission to study and report on all major issues related to glaciers in and around the Sikkim Himalayas, said: “Sikkim is a mini-theatre, which in a way shows how climate change, triggered by non-natural forces at the global level, can bring about catastrophic natural disasters”. This statement ultimately brings us back to the ‘moving landscape’, at the catastrophic changes that could occur if humans commit sacrilegious acts against the landscape, desecrating its fragile delicacy. Compromising the integrity of the environment means being responsible for a series of actions that ultimately affect not only humans, but all non-human collectives with whom there is a long history of co-existence.

3 Conclusions

The concept of ‘moving landscapes’ is an appropriate tool to contribute to Anthropocene studies, as it fits into broader ecological and anthropological theories concerning agency and relationships between human and non-human communities. The concept of ‘moving landscapes’ provides a tangible illustration of the complex interrelationships between human and non-human communities. These relationships cannot be reduced to a simplistic dichotomy of nature and culture, and the ‘moving landscapes’ demonstrate the intricate eco-systemic interconnections that require careful consideration of the ongoing changes.

The image of a landscape in motion is useful for rethinking the relationship that modern society has had – and continues to have – with the environment. In Sikkim, the very idea of consuming the resources of a particular area to the point of depleting the richness of the soil, destroying biodiversity, polluting water sources and creating utter desolation, only to move on to another area to plunder in the same identical way, would be met with pure horror. It is true that man is free to move to other areas, but the same ability is reserved for the

¹⁴ Sharma et al. 2009; Smadja et al. 2015; Gurung et al. 2019; Upadhyay et al. 2024.

numinous beings that live in the lakes, the land, the forests and the mountains. The model of a nature that can pack up and leave, leaving man to deal with the consequences of his actions, is extremely powerful, suggestive and also realistic; and it is in this last point that the real wonder lies. The 'moving landscape' creates the image of a nature that forces us to confront the very idea of humanity, even before we confront the violent contradictions of an economic, industrial and cultural model -that of modernisation - that is now hardly sustainable. They force us to reflect on what remains, on the non-human forces behind future changes.

This paper examines the nature of the animated Sikkimese landscape and the modes of interrelation between human and non-human agency. The model of the 'moving landscapes' has been employed to demonstrate that, despite the changes brought about by modernization and industrialization processes, there exists in Sikkim a general ontological panorama in which the distinction between 'nature' and 'culture' is not postulated in the dichotomous terms belonging to the paradigm of modernity, founded on the assumption of a mono-naturalism and multi-culturalism. Conversely, the distinction between human and non-human inhabitants in Sikkim appears to align more closely with the Amerindian scenarios described by Viveiros De Castro, wherein belonging to a single culture is expressed through a multiplicity of forms and bodies.

The hypothesis of a Sikkimese perspectivist view, resulting from a convergence of shamanic and Buddhist influences, lends plausibility to the possibility of a more conscious and engaged relationship with the territory and the material forces present there. These forces, rather than reinforcing the primacy of human agency, demonstrate the capacity to shape the environment, relationships, and bodies. The animated landscape that emerges in the 'moving landscapes' is a community of non-human agents representing characters invisible to the human eye yet active and mobile, capable of reorganising everything around them just like humans, because this is a general ability of living beings (Latour 2020, 141-2, 149).

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Gone with the Clam Multispecies Arrangements and Feral Rhythms in the Goro Lagoon (Po River Delta)

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Abstract The Goro Lagoon, located at the southern edge of the Po River Delta, is considered a major European site for clam farming. Following the advent of the Manila Clam ‘revolution’ in the 1980s, the local community transitioned from traditional fishing to a mono-focalised ecological infrastructure focused on aquaculture. However, in the last decade, anthropogenic climate alterations have severely impacted the lagoon and its industrial system, triggering a series of accelerated proliferations of macroalgae and non-indigenous species – the Atlantic Blue Crab being the most prominent one. The article investigates the eco-cultural entanglement of the Goro Lagoon and critically explores the multispecies correspondences that excited its biosocial becoming. Thus, the concept of ‘arrangement’ is employed to question both local representations of clam farming and the feral disturbances endangering its feasibility. Finally, ethical and political implications are discussed in light of the cultural expectations of controllability embedded in the technocratic administration of the lagoon.

Keywords Po River Delta. Goro Lagoon. Clam farming. Climate change. Non-indigenous species. Multispecies ethnography. Environmental anthropology.

Summary 1 Introduction. – 2 Domesticating the Lagoon. – 3 Clam Farming as a Multispecies Arrangement. – 4 Feral Rhythms of the Anthropocene. – 5 Conclusions.



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1 Introduction

In his eclectic reportage on the Po River Delta, Italian writer Ermanno Rea wrote: “Goro is a complete surprise. Barely out of the darkest night imaginable and it is already shining: big cars, jewels for Sunday reunions, feasts that are monuments to wealthiness” (1990, 45; my transl.). At the time of his astonished observations, the local community was experiencing the euphoric booming of the so-called ‘clam revolution’. Once a fishing village that had faced severe socio-economic struggles for most of the twentieth century (Danesi della Sala, forthcoming), in the 1990s Goro turned out to be one of the most lucrative economies in the whole Emilia-Romagna region. After their successful experimentation in many brackish sites of the Po River Delta (Breber 2002), in the 1980s clam farming techniques had quickly taken over the old fishing traditions and boosted the development of an industrial model of aquaculture that has persisted to this day. In the case of Goro, the experimental ‘sowing’ proposed by a local biologist in 1986 led to a radical socio-environmental transformation that has been often described as a ‘mono-economic’ turn (Tamoni 2005). The staggering increase in incomes went hand in hand with the conversion of the Goro Lagoon into a productive infrastructure exclusively focused on the clam. Here, the clam itself became the ‘totemic icon’ of an unexpected and long-awaited rebirth: still nowadays, at the entrance of the town, under the local toponym, one cannot fail to notice the triumphal sign that reads *Capitale della Vongola Verace* (Capital of the Mediterranean Clam). This is undoubtedly peculiar given that modern clam farming is based on the exploitation of a non-indigenous species, which is the Manila Clam (*Ruditapes philippinarum*) of the Pacific Oceans.

However, in the last decade, the Po River Delta has been severely affected by climate-related issues that have been threatening the future feasibility of aquaculture systems. The impact of global warming has been framed locally in terms of rising sea levels, saline water intrusion, and coastal erosion phenomena which are becoming as frequent as acute (Simeoni, Corbau 2009; IPCC 2023). Moreover, the increasing tropicalisation of the Mediterranean Sea has triggered a process of biodiversity reduction (Templado 2014) or ‘simplification’ (Agostini et al. 2021) that has become sharply visible in the North Adriatic regions. In this regard, the communities inhabiting the delta wetlands have been witnessing a disquieting series of ‘accelerated’ environmental changes (Van Aken 2020) that have fostered widespread feelings of uncertainty and disorientation. More specifically, in the case of Goro, these turbulent alterations have been repeatedly enacted by bursting - and deathly - proliferations of nitrophilous macroalgae as well as growing intrusions of non-indigenous species that directly feed on clams (Mistri et al. 2019). The vulnerability of

the local socio-environmental infrastructure has become overtly evident in 2023, when the Goro Lagoon has suffered the overwhelming ‘invasion’ of the Atlantic Blue Crab, whose disruptive proliferation has been represented as a tragic disaster – both economically and culturally.

In this article, which is based on two years of ethnographic fieldwork in the Po River Delta, I delve into the eco-cultural entanglement of the Goro Lagoon and ask: how may we understand the multiple and more-than-human interactions of its biosocial becoming? In recent years, cultural anthropologists have been exploring new theoretical perspectives to critically address the Anthropocene debate by taking into account the material, semiotic, and social agency of non-human actors. In this respect, multispecies ethnography (Kirksey, Helmreich 2010) has emerged as a refreshing and provocative orientation that has pushed anthropological studies beyond their conventional boundaries and towards a more transdisciplinary stance. My analysis builds on this methodological premise and attempts to push its – very often belittled – ethical and political implications even further: if multispecies ethnography is an “art of attentiveness” (Van Dooren, Kirksey, Münster 2016) that ignites a peculiar “speculative wonder” (Ogden, Hall, Tanita 2013), I argue that anthropological writing should fully embrace the opportunity to elaborate uncanny narratives and metaphors that seriously question our understanding of the *Anthropos*. Thus, in this work, I employ the concept of ‘arrangement’ to explore the agential correspondences that have enacted (Mol 2002) the accelerated environmental changes of the Goro Lagoon. By looking at the lively forms of ecological synchronisation, attunement, and variation, the idea of a multispecies arrangement makes visible the rhythms (Krause 2022) and temporal configurations (Gan 2017a) that underpin clam farming and its subsequent feral disturbances (Tsing, Mathews, Bubandt 2019). Therefore, the tragic disruption of the local economy, I contend, is the marker of a re-arrangement that, by exceeding local assumptions of controllability (Rosa 2020), appears to be culturally unthinkable.

2 Domesticating the Lagoon

Floriano is waiting for me in the courtyard at the back of his house. “You better wear these if you don’t want to get your feet wet” he mutters amicably while pointing to an old pair of rubber boots. After meeting with his son Filippo, we reach the docks of Gorino – a tiny hamlet of Goro – and we jump aboard a small boat.

Filippo steers the boat with confidence and, as we navigate the shallow and rippling waters of the lagoon, is in the mood for some conversation. The lagoon, he explains, is a very ordered space. The

big wooden poles that appear at regular intervals mark the navigation canals, which have been recently renovated with great excavation works. They are the highways that the farmers of the clam industry use for their commute to work. The areas where clams are harvested, he continues, are delimited by smaller poles and are commonly known as *orti* (gardens): they are like agricultural plots of varying sizes, depending on the farmers' cooperative that owns them. Actually, he points out, clam farming is usually represented and spoken of as a *coltivazione* (cultivation).

Harvesting operations are aided by mechanised tools, such as the *idrorasche*, which are metal rakes equipped with blowing jets to crack the sand layers where clams are settled. The nets are then emptied over a vibrating sieve onboard: by doing so, Filippo explains, clams are filtered according to their size. The big ones are ready to be processed in the purification and packaging facilities in town. The smaller ones will be sown again. As we sail back to Gorino, I ask Filippo about the dark black tone of the shells. He smiles and explains that the colour is due to the sludgy floors of the lagoon. Once they are purified, they will return to their natural hues. Once ashore, Floriano asks me: "Did you like it?". It was my first time onboard, and I wasn't quite sure what to say. Anyway, he immediately adds: "I really don't like it". I would soon understand the meaning of his words. He was an old fisherman and, although he had adapted to clam farming practices, he belonged to a minority of people who never appreciated the abrupt 'industrial' turn of its world.

As Rita Vianello (2018) has shown in the context of the Venetian lagoon, the advent of modern aquaculture techniques in the 1980s fostered a rapid industrialisation process that involved most of the North Adriatic fishing communities.¹ In this regard, Goro clearly emerged as an unprecedented case of monocultural conversion and socio-economic homogenisation. Located at the southern edge of the Po Delta, the village was born in the eighteenth century and grew spontaneously between the riverbanks and the adjacent lagoon [fig. 1]. Given the amphibious peculiarities of the site, fishing represented the community's main source of livelihood for a long time. By developing creative practices, techniques, and knowledges that were attuned to the lively dynamism of their brackish surroundings (Maestri 1981),

1 The introduction of *Ruditapes philippinarum* in many sites of the North Adriatic region has played a major role for the development of the Italian aquaculture economy. This process had a significant socio-environmental impact in all the sites where the experimentation took place - i.e. the Venetian lagoon in 1983, the Caleri, Vallona, and Scardovari lagoons in 1985, and both the Marano and Goro lagoons in 1986 (Breber 2002). While not a mono-economic context as in Goro, in the last decade the Venetian clam industry has faced a similar crisis which has been thoroughly explored in an ethnographic inquiry by Florence Menez (2015).



Figure 1 The map shows the Goro Lagoon (ca. 20 km²) and the areas devoted to the clam farming industry (ca. 13 km²). Yellow areas identify the 'cultivation' plots of the cooperatives, whereas purple areas are 'nursery' zones created to preserve the younger stocks of *Ruditapes philippinarum*. Graphic elaboration by the Author. Data source: Copernicus Data Space Ecosystem, 2024; Life Agree Project Final Report, 2021.

local fishing traditions also expressed a vernacular form of ecological awareness and flexibility. However, soon after the 'clam revolution', these traditions were quickly abandoned and as of today, with more than a thousand boats for clam farming, fishing trawlers are gradually disappearing from the docks.

Considering the period 1988-2018, the local aquaculture industry averaged between 10,000 and 15,000 tonnes of harvested clams yearly,² making the Goro Lagoon one of the biggest farming sites of Europe. However, unlike in other contexts, here the aquaculture revolution had a sharper impact that significantly reshaped the eco-cultural relations of the community. During my ethnographic fieldwork, I noticed that many clam farmers, when discussing or explaining their job, were regularly using terms completely unrelated to the fishing or marine repertoire. As mentioned previously, the farming areas were referred to as *orti* (gardens), but also as *campi* (plots), *appezzamenti* (parcels) or *concessioni* (concessions). In the same vein, clams

2 Data taken from the report *Le marinerie del Polesine* (2018) published on the regional agency Veneto Agricoltura website: <https://www.venetoagricoltura.org/2019/04/news/le-marinerie-del-polesine>.

went by different names, like *raccolto* (harvest), *prodotto* (produce), *semi* (seeds), *pietruzze* (pebble) or *oro* (gold) – the latter indicating the high economic value associated with clam extraction. Also, the lagoon was usually called *fabbrica a cielo aperto* (open-air factory) or *miniera d'oro* (gold mine). This terminological assortment expresses a clear reference to intensive agriculture and industrial rationality as conceived by the late-capitalist fossil economies. More specifically, modern aquaculture reproduces the same ideological and technological paradigm that underpinned the Green Revolution – and its miraculous seeds (Cullather 2004) – by extending its agronomic assumptions over a watery space. In this sense, the figure of the ‘mine’ underlines an explicit extractive ideology (Ferry 2022) which is enacted through a mono-focalised exploitation of the lagoon with the ‘golden seeds’ of *Ruditapes philippinarum*.

However, the transition from the relational attitude of small-scale fishing to the ‘calculative ethos’ (Appadurai 2012) of industrial aquaculture has been driven by a wider process of ecological domestication. This process should be understood as a classificatory endeavour that, by imposing human control over non-human entities, reinforces specific assumptions on the state of advancement or progress of a social group (Swanson et al. 2018). In this sense, modern ideas of domestication have often paved the way for many large-scale political plans and techno-scientific interventions such as the aquaculture revolution. Moreover, as noted by Gro Ween and Heather Swanson (2018), the etymology of the term ‘domestication’ (lat. *domus*, ‘home’) implies the many practices that reconfigure what a community thinks as the proper home of a non-human subject. The Manila Clam was initially recruited by transnational laboratory research as a scientific object of study for applied biologists. This is where its ontological reconfiguration began: firstly, it was converted into a set of biological parameters for aquaculture systems, and then it was tested in specific environments to verify its commercial potential. Transformed from an animal into an economic resource, *Ruditapes philippinarum* was then desubjectivised by technocratic farming and harvesting practices. Laura, a young clam farmer, told me in all honesty that “clams are not considered animals. [...] It seems like you’re harvesting fruits”. Indeed, as made clear by the other terms employed by my interlocutors, in the Goro Lagoon, clams were hardly ever considered as living creatures. In addition to this, one should not forget the non-indigenous origins of the Manila Clam. In this sense, the extractive domestication of the species in the Goro Lagoon was allowed by a process of biosocial ‘purification’ (Latour 1991) that, given its economic value, made *Ruditapes philippinarum* a welcome arrival. Consequently, the cultural indigenisation of its presence quickly led the entire community to identify itself in the Manila Clam, which was promptly re-defined as ‘the clam of Goro’.

Furthermore, I argue that the domestication process did not concern the clam alone but also affected both the spatial representations and politics (Lefebvre 1991) of the environment. With the development of a system that was focused on the exploitation of a single species, the lagoon underwent a technocratic reconfiguration that prioritised its legibility and controllability. As required by modern aquaculture models, the Goro Lagoon was geometrically mapped and organised in discrete subdivisions for the ‘cultivation’ of clams. In this respect, the constant monitoring of hydrodynamic patterns by local biologists and experts has played a fundamental role in ‘fixing’ the productive landscape of the lagoon: on one hand, it has supported a series of environmental ‘restorations’ that were designed exclusively for clam farming (canal excavations and seabed nourishment, for instance); on the other hand, it reinforced the idea that the lively ‘volatility’ (Krause 2023) of a deltaic lagoon could finally be ‘tamed’ by techno-scientific management.

3 Clam Farming as a Multispecies Arrangement

Since its early days, the monocultural infrastructure of the Goro Lagoon has suffered multiple ecological crises due to the proliferation of nitrophilous macroalgae – *Ulva rigida* and *Gracilaria verrucosa* in most cases (Turolla 2008). Local biologists describe this environmental issue as a ‘dystrophic crisis’, which refers to a somewhat ‘pathological’ deterioration process triggered by algal blooming. As macroalgae exhaust all the nutrients and the oxygen of the lagoon, they begin their decomposition process. The biochemical reactions involved end up with the release of hydrogen sulphide – a white fluid that covers the upper strata of the water column. As a consequence, clams cannot feed or breathe anymore – they die en masse.

Alessio, a middle-aged accountant from Goro who gladly switched to clam farming, told me that in 2011 the *disastro dell’acqua bianca* (white water disaster) – as they call it – had dramatic consequences: “The infamous plague... The *Sacca* [the local name for the lagoon] was all white”. Doctor T., a local biologist, had analysed the severity of the event: “100% of clams were dead”. Mauro, a fisherman from Goro who embraced the clam revolution as a positive turn for the community, expressed the discouragement he felt after the event: “You need three or four years to start again. It’s not that easy”. To solve the problem and protect the local industry, in 2014, the administration of Goro initiated an environmental restoration project that was financially supported by European funding and local cooperatives’

sponsorship.³ In the following years, the morphology of the lagoon was modified by new excavation and nourishment works aimed at increasing water recirculation and oxygenation. In November 2021, during a public meeting on the project's outcomes, Doctor T. declared that the problem was finally solved: "Our success is due to our ability to modify the environment".

The technocratic representation expressed by Doctor T. was basically shared by the whole community. In Goro, the origins of clam farming are embedded in a 'mythological' narrative that gives Man and its techno-scientific knowledge a 'Promethean' merit - the lagoon, on the other hand, is no more than a background to be exploited or fixed. When I met Doctor Paesanti, the local biologist who proposed the first experiment in 1986, he told me:

The farming activity [started] not because I am... the Messiah... but because as a simple *Goranto* [a local term to indicate the people from Goro] I had the opportunity to study. [...] It was a revolution.

During fieldwork, it became sharply evident that clam farming was too-human a story: non-human actors had been instrumentally neutralised and objectified by an anthropocentric ecological paradigm. Therefore, drawing inspiration from Elaine Gan's work on the Green Revolution (2017a; 2017b), I wondered: is it possible to write a 'more-than-human' story of the clam revolution? In the following paragraphs, I present my attempt at recomposing the polyphonic arrangement - of fluxes, substances, capitals, politics, and organisms - that underpinned the emergence of clam farming in Goro. In doing so, I borrow many terms from the music jargon to underline the temporal, socio-environmental, and material interactions that sustain the idea of an indeterminate arrangement. This story starts with the Manila Clam itself.

Ruditapes philippinarum came to Europe by pure accident. In 1936, when it was classified as *Venerupis japonica*, the mollusc was unintentionally imported into the small port town of Ladysmith, on the Canadian coast of British Columbia. Probably harvested together with a commercial load of *Crassostrea gigas* (the Pacific oyster), as reported by marine biologist Daniel Branch Quayle (1964), the Manila clam displayed extraordinary adaptation skills. It proliferated rapidly in Puget Sound and throughout Vancouver Island. In 1941, as Quayle noted, *Venerupis japonica* was regularly harvested and sold along with the indigenous Littleneck Clam (*Protothaca staminea*). However,

3 The project AGREE (coAstal laGoon long teRm managEmEnt) was part of the LIFE Programme of the European Union. The main objective was the protection of some indigenous species threatened by environmental changes: however, most of the morphological interventions were aimed at restoring the ideal conditions for clam farming.

until the 1970s, the European market still preferred imports of Pacific oysters and Hard Clams - or Northern Quahogs - from North America. Interestingly, the introduction of these species in France was instrumental to early experimentations with modern aquaculture techniques. In 1966, the Madec laboratory was opened in Brest: it was the first mollusc hatchery in France. In 1972, it was quickly followed by the SATMAR, in the Cotentin peninsula of Lower Normandy. Designed for oyster farming, in their early years, both hatcheries had to deal with a zoonosis that had spread in oysters coming from Portugal. Thus, both the epidemic and market demand drove the researchers to experiment with new technologies for the controlled reproduction of different bivalve molluscs.

In 1972, as documented by biologists Flassch and Leborgne (1992), the SATMAR hatchery imported a stock of 500,000 specimens of *Venerupis japonica*. Introduced into French waters in larval state, the first experimentation was a total failure: the clams were preyed upon in no time. Between 1973 and 1974, the hatchery procured 1,000 more - this time, as adult specimens. In 1980, the British laboratory of Conway, under the supervision of the Ministry of Agriculture, Fisheries, and Food, procured another 50 specimens. Both imports were then used as laboratory breeding stocks to obtain new larval clusters: the 1,050 Manila Clams recruited in Europe fuelled a decade of biological studies that led to the development of new aquaculture systems. Between 1980 and 1989, the quantities raised and harvested in France increased from 2 to 450 tonnes. The *Ruditapes philippinarum* model was ready to be exported to the rest of Europe. In 1983, Italian biologist Paolo Breber started working with the Co.S.P.A.V. (Consorzio per lo Sviluppo della Pesca e dell'Acquacoltura del Veneto, 'Consortium for the Development of Fishing and Aquaculture in the Veneto Region') for the implementation of this model in the North Adriatic lagoons. In 1986, Doctor Paesanti, once he heard about Breber's project, decided to attempt the same experimentation in the Goro Lagoon. Thus, the 'revolutionary' sowings of the 1980s were an accidental entanglement of biogeographies, commercial routes, zoonoses, and techno-scientific programmes to which the Manila Clam responded in unpredictable ways.

The Po River Delta, with all its transitional wetlands and brackish lagoons, was identified as an ideal environment for clam farming. However, one should not forget that the morphology of the Delta has been shaped by a more-than-human interplay of political-economic disputes, nation-building processes, and environmental phenomena. Between the seventeenth and twentieth centuries (Maestri 1981), land reclamation interventions led to new forms of ecological exploitation that oftentimes had unintended consequences (Danesi della Sala, forthcoming). The temporality of human regimentations excited unexpected rhythms of riverine flooding and sedimentation

from which the aleatory deltascape (Krause, Harris 2021) of the present day emerged. Thus, the Goro Lagoon and its spatio-temporal tune were actually moulded by polyrhythmic patterns of material sediments, alternating Bora and Scirocco winds, tidal undulations, as well as anthropic actions. Moreover, the incidental harmonisation of salinity and phytoplankton tonalities resulted in the choral expression of unique benthonic biodiversity.⁴

It is exactly through the abundant frequencies of phytoplankton that the biosocial becoming of Goro's fishing tradition could resonate. The ensemble of these microscopic protists and bacteria plays a crucial part in the composition of the lagoon: by assimilating nitrogen and phosphorus dissolved in riverine sediments, phytoplankton fixes atmospheric carbon dioxide through photosynthesis and in turn releases oxygen. Due to their enclosed morphology, deltaic wetlands are usually rich in these substances and organisms - which biologists consider as the first link in the aquatic food chain. However, starting from the 1960s, the total amount of phytoplankton living in the Po River Delta significantly increased, along with the growing agronomic mechanisation and intensification that took place in the Po Valley. As observed by several studies (De Wit, Bendoricchio 2001; Castaldelli et al. 2013; Viaroli et al. 2018), high levels of fertilizers rich in nitrogen and phosphorus have fostered the eutrophication of the Po River Delta, leading to the multiplication of phytoplankton populations. *Ruditapes philippinarum*, just like in Puget Sound, displayed extraordinary adaptation skills and synchronised its presence to the seasonal growth of phytoplankton - an interesting harmonisation between the chemical temporality of agronomic spills and that of clams' reproductive habits.

However, the acceleration of intensive agribusiness in Northern Italy was also linked to processes of pollution and biological degradation that severely affected the biodiversity of the Po River Delta: interestingly, clams were introduced in the Goro Lagoon at a time when fish species that were traditionally caught were disappearing. Moreover, it is worth noting that, at least from the 1960s, the dominance of monocultural and extractive paradigms based on fossil fuels has played a major role in triggering global warming and subsequent ecological alterations: in this regard, the increase in carbon dioxide emissions between the 1960s and the 2000s has fuelled the tropicalisation of the Mediterranean (Bianchi, Morri 2003) and allowed many non-indigenous species to proliferate in unusual biogeographies - the Manila Clam making no exception.

⁴ It is worth noting that the Po River Delta, before the Manila Clam introduction, was inhabited by the indigenous Mediterranean Clam (*Venerupis decussata*). However, after excessive harvesting in the 1960s, the population noticeably declined until its disappearance. Biologists claim that this species is too fragile to be farmed. *Ruditapes philippinarum*, due to its aesthetic similarities, was thus presented as the ideal substitute.

As we acknowledge the agential temporalities (Barad 2007) of non-human actors, the mythological narrative of the clam revolution starts crumbling: human agency is enmeshed in a lively arrangement of multispecies correspondences, synchronisations, and improvisations that defy any idea of predetermination or invention. More precisely, the techno-scientific experimentation of clam farming was executed in the context of a pre-existing more-than-human polyphony. In this sense, the biosocial becoming of the Goro Lagoon may be understood as a creative ‘jam session’ that is always apt to enact new patterns, modulations, and rhythms. Therefore, the environmental infrastructure of Goro constitutes what Eben Kirksey (2015) has defined as an ‘emergent ecology’ – an ecological arrangement that is neither static nor entirely controllable.

4 Feral Rhythms of the Anthropocene

In May 2022, the people from Goro became really worried about the prolonged drought that had been going on since winter. The Po River was drying up and the lagoon was hardly navigable: I even started noticing that large piles of macroalgae were accumulating on the shores. Furthermore, salty waters from the Adriatic Sea were intruding into the river branches and the drastic increase in salinity levels was damaging both agricultural activities and aquaculture systems. Asked about the situation, Doctor T. invited me to his laboratory. His explanation was very clear:

Less water from the Po River, higher salinity... The clam is a species that requires medium-low salinity. I show you the data, I measure salinity levels [in the lagoon] twice a day, every day, I show you the data from last winter, from November until twenty days ago: salinity levels are constantly above 30 per thousand, which is a medium-high value, not medium-low. The clam is affected, it doesn't die, but is affected, it's not its habitat. It's like taking the lion living in the savannah, that is used to 50 degrees, and bringing it here... It eats, but if there were 2-3 degrees more [it would be better]. [...] The clam was affected, its growth slowed down. Less water from the Po River, less nutrients, less food, higher salinity, and there you have macroalgae appearing again, which we had not seen for a long time.

This time, Doctor T., who had always impressed me with his confidence, seemed quite uncertain:

We will see what is going to happen, the season has already started moving... It may be that water is coming, but how much? We will see. You don't know.

This form of ‘not-knowing’ clearly expressed the growing disorientation enacted by environmental phenomena that were eluding scientific expectations and interpretations. In the following months, especially between July and August, the absence of rain exacerbated the proliferation of macroalgae and its harmful effect on the aquaculture ‘gardens’. Clam farmers, on many occasions, lamented that the lagoon was ‘suffocating’ or ‘dying’, and therefore asked local and regional institutions for further environmental ‘restoration’ actions. Finally, by excavating a new canal with an emergency protocol, the administration of Goro managed to reduce the effects of the dystrophic crisis.

Algal bloomings and mass mortality phenomena in aquatic ecosystems represent a major impact of the ecological disturbances triggered by anthropogenic climate change (Benbow, Receveur, Lamberti 2020). In this sense, the increasing eutrophication of the Goro Lagoon and its dystonic shifts make the controversial interactions of fossil economies visible: on the one hand, clam farming is based on the monocultural, technocratic, and extractive paradigm that emerged in the twentieth century along with the exploitation of fossil resources; on the other hand, this very model not only created the ideal ecological conditions to which the Manila Clam was able to adapt but also produced unintended environmental alterations such as macroalgae proliferations and non-indigenous species intrusions.⁵ Mauro, for instance, told me that in recent years the lagoon was rapidly changing in strange ways:

And what about the *nucin*? [He refers to the allochthonous Sea Walnut]. And then those strange algae? These things have arrived because... In the past, they couldn’t create a habitat here... But now, as the sea has become warmer... There is also this crab that I don’t know where it comes from [he’s talking about the Atlantic Blue Crab]. But it is strong! It’s a beast! It’s a real beast! There are plenty of them!

Accelerated changes as such were often described to me as forms of ‘uncontrollable’ disruption. On many occasions, the ‘feral’ proliferations (Tsing, Mathews, Bubandt 2019) of unknown species were also defined as ‘disturbing anomalies’ or ‘monstrous invasions’. Interestingly, the metaphor of the monster has been used by anthropologists Tsing, Swanson, Bubandt and Gan (2017) as a means to reconceptualise the Anthropocene and its disquieting expressions. In this respect, the abrupt

⁵ Among the most relevant appearances, based on clam farmers’ observations, it worth citing: the Sea Walnut (*Mnemiopsis leidyi*) and the Atlantic Blue Crab (*Callinectes sapidus*) from North America; the Transverse ark clam (*Anadara transversa*) from the Atlantic coasts; the amphipod *Grandidierella japonica* from Japan; the red seaweed *Gracilaria vermiculophylla* from the Northwest Pacific.

re-arrangement of local ecologies seems to be a peculiar trait of the climate crisis: anthropocentric configurations of socio-environmental relations appear to be jagged, eroded, and stripped out by unknown rhythms and temporalities. Yet, one should not forget that these very rhythms have been excited by the more-than-human interplay of carbon ecologies, mono-focalised industries, and intensive exploitation models.

From a cultural standpoint, the unpredictable outcomes of these rhythmical entanglements have resulted in widespread perceptions of uncertainty and dismay. Clam farming in Goro was developed around technocratic assumptions of controllability that have been reversed by the climate crisis – a more-than-human reaction that, as sociologist Hartmut Rosa (2020) suggested, constitutes a peculiar trait of Western modernity. Yet, ideas of environmental manipulation or ecological restoration – which are supported by local biologists and institutional representatives – continue to be advocated by clam farmers as the only solution to the crisis. Fausto, a middle-aged clam farmer, told me it was a matter of life and death:

Because the lagoon, with its daily transformation, a transformation that occurs quickly... It needs continuous works that keep it alive, because if we leave it on its own, it dies.

In this sense, the rigidity of the productive infrastructure, which has been made precarious by the feral rhythms of the Anthropocene, is mirrored by the low flexibility of its social organisation: despite the evident de-synchronisation of clam farming relations, the community of Goro seems unable to coordinate and co-respond to the new emergent ecologies of the lagoon. Moreover, its technocratic politics enact what anthropologist Kari Norgaard has defined as ‘social denial’ – a form of collective blindness that originates from the lack of meaningful accounts of the ethical, political, and economic correspondences at the core of the climate crisis.

5 Conclusions

In 2023, the proliferation of the Atlantic Blue Crab (*Callinectes sapidus*) reached unprecedented levels. For the first time after many years, the community of Goro was facing the risk of economic collapse: the vast majority of clams’ gardens had been swept away by the feral hunger of the ‘alien’ – this is the term that my interlocutors used to refer to the Blue Crab. National and international media outlets, especially during the summer months, amplified the local rhetoric of a dramatic ‘invasion’ that had to be fought with all available means. When I paid a visit to Floriano, in September, he was clearly distressed: “There’s not a single clam left. They’ve all been eaten!”.

Asked about the local strategy, which aimed to capture as many crabs as possible to save the industry, he cynically told me that all efforts were futile: “This is an unequal war”. As we sailed across the lagoon, he also showed me other defence experiments: some plots had been enclosed in tightly knit metal fences. The ‘walls’ – to quote Floriano’s words – were installed by some cooperatives on the advice of the local biologists and technicians. However, it was not clear whether they would work as intended or not.

As the multispecies arrangement of the lagoon has been ‘remixed’ by the climate crisis, it seems like the local community is facing a radical disconnection from the biosocial becoming that has emerged with unexpected feral rhythms. The people from Goro are experiencing a crisis of presence (De Martino 2019) that deeply questions their eco-cultural imagination. Despite the severe crisis of the monocultural infrastructure, most inhabitants still consider clam farming as the only possibility of life. In the same vein, local identity and environmental politics insist on the vanishment of the clam as a dramatic loss that might leave no alternatives. In this sense, the collective denial of the socio-environmental re-arrangement may be understood as a different kind of loss: the loss of meaningful ‘response-ability’ (Barad 2007) that seems to amplify the fracture between human expectations and non-human interactions.

The cultural outcomes of this process are yet to be observed and discussed. Anthropological research is weaving transdisciplinary threads that might shed new light on the multispecies arrangements of the Anthropocene. By experimenting with perspectives, methodologies, and narratives that account for non-human agency and creativity, ethnographic work will play a crucial role in deconstructing the monophonic representations of late-capitalist ecologies. At the same time, the rehabilitation of more-than-human polyphonies should not be detached by critical accounts of their ethical and political implications. In this regard, the situation of the Goro Lagoon opens up a fundamental issue: will the local community be able to imagine a future outside the fence?

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Big Cruise Ships Going Feral: An Ecocritical Reading of Overtourism in Venice

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Abstract The problem of big cruise ships overtourism in Venice is examined with an ecocritical approach, through two novel concepts: Feral entity and Plantationocene. The first one is adopted to describe big cruise ships as other-than-human subjects benefiting from human-built infrastructures to spread beyond human control, becoming undomesticated. Such ferality is evident in some of their attributes, such as being uncontainable, creating a toxic environment or producing legacy effects. Plantationocene, instead, is used to depict the cruise ships-induced touristic monoculture affecting the city, highlighting its major characteristics, namely that of global circulation of humans and capital and the homogenisation, simplification and exploitation of eco-social landscapes.

Keywords Touristification. Ferality. Plantationocene. Anti-tourism movement. Touristic monoculture.

Summary 1 Introduction. – 2 Methodology. – 3 Big Cruise Ships as Feral Entities. – 4 The Venetian Plantationocene. – 5 Conclusion.



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1 Introduction

The world we inhabit is fluid, constantly moving and transforming at an ever-increasing pace – it is overheating, as Eriksen (2016) would phrase it. At every turn, unknown problems seem to mount, calling not only for original solutions, but also for new interpretations, apt to shed light on the infinite and complicated weaves in which we are all enmeshed. Old categories that once seemed convincing now fail to reflect the complexity of current dynamics, where the global becomes the local, the human becomes a natural force and the other-than-human is recognised as a subject and object of ecosystem disruption. Hence, new lens of analysis are called for to navigate these troubled times and to provide new meanings even for facts and events to which we are already well-accustomed.

For its own nature, Venice is a miniature, condensing in itself many of the processes occurring also at a global scale. It could be considered an open-sky laboratory, an extremely intriguing real-life experiment, and indeed it has already catalysed the efforts of many researchers, covering a variety of topics related to the city. One of them certainly is the problem of big cruise ships and overtourism.

Overtourism as a global trend has captured the mediatic and academic world's attention during the past thirty years (Perkumienė, Pranskūnienė 2019), gaining an increased weight in more recent times.¹ Indeed, in the last decades, tourism has rapidly expanded and diversified on a global scale (Heslinga 2018; Postma, Schmuecker 2017; UNWTO 2018), with Amsterdam, London, Paris, Berlin, Rome, Florence, and, of course, Venice being some of the most affected cities in the European continent (Martín, Guaita Martínez, Salinas Fernández 2018). In Bertocchi and Visentin's view (2019), the term overtourism combines the physical dimension of an over-crowded place with the psychological burden experienced by its residents, who feel overwhelmed. Scholars have dealt with this issue under different angles: some point to the difficulties of mediating between the travellers' right of movement and the residents' right over their living place,² while others emphasise the negative implications, such as the disruption of local livelihoods and the eco-social fabric (Calzada 2020; Seraphin, Sheeran, Pilato 2018). As a response, a wave of anti-tourism resistance has spread all around the globe.³ Moreover,

1 Dodds, Butler 2019; Erschbamer, Innerhofer, Pechlaner 2018; Koens, Postma, Papp 2018; Ribeiro De Almeida et al. 2020; Seraphin, Sheeran, Pilato 2018; Żemła 2024; Żemła, Szromek 2023.

2 Dauvergne 2004; Gilbert 2014; Juss 2004; Tolkach, Pratt, Zeng 2017.

3 Camisani 2018; Carballo, León, Carballo 2019; Kerr, Wardana 2019; García-Hernández, De la Calle-Vaquero, Yubero 2017; Ioannides, Leventis, Petridou 2016; Loperena 2017; Schiermeier 2004; Smith, Sziva, Olt 2019; Stanley 2021; Winengan 2019.

discussions on possible solutions have generated proposals including the implementation of a system thinking approach, rather than late emergency single policies (Cristiano, Gonella 2020), a combination of exploitation of existing markets and exploration of new ones (Seraphin, Sheeran, Pilato 2018), and degrowth (Buhr, Isaksson, Hagbert 2018; Ram, Hall 2018).

With its 21 million of visitors per year,⁴ overtourism affects the city of Venice, producing what van der Borg (2017) has named “Venetianization”, that is an unbridled growth in tourism supported by the expansion of touristic facilities. Indeed, residential tourism and excursionism have quadrupled and quintuplicated, respectively, compared to the late 1980s (van der Borg 2017). At the same time, major changes in the touristic sector – such as the rise of low-cost airlines, big cruise ships, B&B and rental platforms – have influenced not only the quantity, but also the quality of the visitors in the city (Bertocchi et al. 2020). Studies undertaken in 1988 applying the concept of tourism carrying capacity⁵ had already warned that the number of visitors was excessive, thus sabotaging local socio-economic needs (Canestrelli, Costa 1991; Costa, van der Borg 1988), and such trend has been confirmed by more recent research (Bertocchi et al. 2020; van der Borg 2017). To reverse the situation, some of the proposed solutions point to a comprehensive rethinking of the whole urban system (Cristiano, Gonella 2020).

However, as I have previously suggested, we need novel interpretations to old problems. Therefore, despite the already existing abundant literature on the topic, my contribution is that of suggesting the suitability of two brand new theoretical frameworks to investigate the aforementioned questions. These frameworks are represented by the Feral Atlas and the concept of the Plantationocene.

The first stems from the efforts of a group of anthropologists trying to narrate our present as the outcome of a co-evolutionary process, during which human and non-human entities alike have played their role, entangling one with the other. In this endeavour, they formulated the category of “feral entity” (Tsing et al. 2021), namely those other-than-human subjects that benefited from human-built infrastructures to spread beyond human control, becoming somehow undomesticated. This is the conceptual category I applied on big cruise ships and to which I devote the first section of this paper.

⁴ Città di Venezia, *Annuario del turismo dati 2022*. https://www.comune.venezia.it/sites/comune.venezia.it/files/immagini/Turismo/Annuario_del_Turismo_dati_2022.pdf.

⁵ Tourism carrying capacity can be defined as “the maximum number of people that may visit a tourist destination at the same time, without causing destruction of the physical, economic and socio-cultural environment and unacceptable decrease in the quality of visitors’ satisfaction” (UNWTO 1981, as cited in Bertocchi et al. 2020).

Instead, the term Plantationocene represents another attempt to re-name our epoch in a way that conveys its most relevant aspects; in this case, a parallelism with the situation of the plantations (and not just metaphorically speaking) is chosen to describe the dominant socio-political, economic and ecological dynamics. In the second part of this paper, I illustrate how this concept serves the goal of describing the situation of Venice in relation to big cruise ships overtourism.

Before delving into such analysis, it is important to contextualise overtourism as the most recent expression of Venice's entanglement with the global circulation of people, goods and capitals, which has characterised the city's history as one deeply rooted in long-distance trade (Arbel 1989; Cecchini, Pezzolo 2012; Chambers, Pullan 2001) - although, for space and time constraints, this aspect will not be dealt in detail here. Venice's role as a commercial intersection point between the West and the East also resulted in its exposure to other forms of "feral entities", such as pests and plagues, especially between the fourteenth and seventeenth century (Nono et al. 1979; Palmer 1978), which were managed by supervising people and merchandise movements and by establishing a system of ship inspection and quarantines in designated areas (the *lazzaretti*) (Osheim 2011; Palmer 1978). However, while merchants and traders have historically been a prominent part for the development of the city (Cecchini, Pezzolo 2012; Chambers, Pullan 2001), present-day overtourism presents peculiar characteristics and requires special attention. On one hand, as previously mentioned, the magnitude of the process is unprecedented. On the other, it is the unintentionality of a human-induced phenomenon that makes it interesting. Indeed, in the fifteenth century, merchants and traders, supported by favourable institutions, would enhance the city's wealth (Cecchini, Pezzolo 2012; Chambers, Pullan 2001; Tucci 1981), while their negative side-effects - such as plagues and pests - were non-human and completely unplanned. In the case of big cruise ship overtourism, instead, the negative repercussions are a direct result of a planned human-built infrastructure, namely big cruise ships, terminals and touristic facilities, which, however, escape from human control and expand to the point of becoming noxious. Moreover, as it will be illustrated, such unintended consequences arise as a combination of human and non-human factors. And in a time where the lines between nature and culture, human and non-human are becoming blurred and increasingly questioned, together with the faith in the superiority of human rationality to control and shape nature for its own needs, re-phrasing the mental categories with which reality is described and stories are told might be a fruitful contribution. Hence, the relevance of applying the "ferality" lens to describe cruise ships overtourism.

2 Methodology

In developing this work, I resorted to a qualitative research method comprised of an ethnographic and sociological narrative literature review (Bryman 2012), as well as on fieldwork, undertaken between January 2022 and June 2024 in the city of Venice. My positionality as a university student allowed me to get in contact with university collectives (such as Li.S.C., Liberi Saperi Critici, 'Free Critical Thoughts') and grassroots groups such as the Comitato No Grandi Navi (No Big Ships Committee), a local organisation, born in 2012 to demand the expulsion of big cruise ships from the lagoon. These groups are active in their mobilisation against cruise ship overtourism, therefore I approached them with the aim of investigating their perspective on the topic. During their social events, gatherings and demonstrations, I adopted a participant observation approach and kept a written account of relevant data. In addition, I undertook six semi-structured interviews with members of the Comitato, which were recorded with their oral consent. The selection of interviewees followed a combined approach involving the snowball method (Mikkelsen 2005) and purposive sampling (Bryman 2012): while one contact led to others, the inclusion of new informants was evaluated based on their contribution's validity to the study. More specifically, members of the Comitato No Grandi Navi were considered relevant due to their in-depth expertise on the topic of cruise ship tourism, as well as for their personal experience as residents of the city. However, such choice represents also the main limitation of the present research, since its results represent primarily the Comitato's view on big cruise ships tourism, and lack a more heterogeneous and varied perspective. The data obtained both through participant observation and the interviews was then analysed via thematic coding and further elaborated in combination with ethnographic and anthropological academic sources, from which I gleaned some pivotal notions - such as that of feral entity, Plantationocene, but also Patchy Anthropocene and radical simplification. In addition, another set of sources were ethnographic and sociological accounts focusing on the topic of overtourism and big cruise ships tourism, both broadly speaking and in relation to the city of Venice.

3 Big Cruise Ships as Feral Entities

In the Feral Atlas, Tsing and others "explore the ecological worlds created when nonhuman entities become tangled up with human infrastructure projects" (2021). In doing so, they highlight the "feral qualities" of these entities, namely the unintended consequences that such entanglements have produced, spreading beyond human

control. This is the conceptual framework through which I intend to re-read the problem of big cruise ships in Venice. In my analysis, I consider big cruise ships as feral entities, whereas I identify as human infrastructure projects both the physical touristic infrastructures, but also the political decisions of the local administration.

Perhaps, the first conceptual tool from which it is useful to depart is that of Patchy Anthropocene.⁶ With this term, the authors of the *Feral Atlas* adopt the philosophical-geological idea of the Anthropocene – the current era characterised by humankind being the dominant influence on the climate and on the environment – but they also point out the fact that, despite being a global phenomenon, it does not evenly materialise all around the globe. The Anthropocene takes different forms, according to the specificities of the single places. Therefore, it is through these lens that I read the phenomenon of big cruise ships tourism, by tracing its global outlook first, while then delving in its repercussions on the local level, namely the case of the city of Venice.

Starting in the Caribbean in the 1970s, after the decline of transatlantic maritime transport, big cruise ships tourism quickly expanded all around the globe, turning from an elite activity to a mass market. Due to this extraordinary fast growth, today it is one of the touristic sectors around which most profits and shareholder capital revolve (Baixinho 2015). During the last twenty years, it has grown like few other industries, arriving to account for around 2% of the global touristic sector (Gui, Russo 2011). According to Trancoso González (2018), since the beginning of this service, the demand for big cruise ships has been growing at an accelerated pace. Undeniably, the expansion of tourism is both a driver and a consequence of the globalisation process and the big cruise ships sector is no exception (Gui, Russo 2011). Indeed, Wood (2002; 2006) argues that no other segment of the touristic industry is so much embedded in globalisation dynamics, mainly because it relies on the deregulation of international regimes and the high capital mobility.

Reading the accounts of the history and development of big cruise ship tourism reveals that the expansion of this activity has been strongly marked by two recurring features: an accelerated growth and the involvement of high amounts of mobile capital. In the *Feral Atlas*, Acceleration and Capital are identified as two of the “Anthropocene Detonators”, i.e. specific historical circumstances that have

⁶ “Feral Atlas and the More-than-Human Anthropocene”. *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=feral-atlas-and-the-more-than-human-anthropocene&ttype=essay&cd=true>.

been crucial for the development of the following events.⁷ Increased and faster capital flows have undoubtedly been a distinctive feature of our epoch, to the point that some have even suggested the replacement of the term Anthropocene with that of Capitalocene, in order to stress the role that the commodification of human and non-human entities have played in the destabilisation and destruction of the world's ecologies (Moore 2016). Acceleration, instead, designates the period starting in 1945, which has seen an exponential growth of many phenomena – the population curve, the rate of commercial exchanges, the production of waste, to name a few. In the *Feral Atlas*, it is labelled as a combination and extension of colonial, imperial and capitalist projects.⁸

Big cruise ships tourism is thus a perfect expression of the convergence of typical aspects of the Anthropocene, namely globalisation, acceleration and capitalisation. And as any facet of globalisation, the range of its effects is both global and local. In this sense, as Tsing (2005) points out, interconnection and localisation are indissociable. The global conditions that have favoured the expansion of this touristic sector have also determined its repercussions at the local level. Globalisation processes shape the nature of places and this holds especially true in the case of big cruise ship tourism, whereby cruise lines are strongly dependent on port cities (Gui, Russo 2011). Venice is an exemplary case of this.

After spending almost three years living in this city, I can easily say that a walk around its streets will suffice to perceive it. Every corner flourishing with an astounding beauty, it almost feels like being trapped inside a post-card. The post-card offers a good metaphor: everything is perfect, but immobile. Meant to be looked at and admired, not lived. Next to vacant, unutilised spaces, restaurants and souvenir shops spring out like mushrooms. People passing through Venice will have no problem satisfying their most superficial needs (something delicious to eat, a new pair of sunglasses to buy...), but when it comes to daily-life necessities – like a shop for electronic devices or a hairdresser – the research becomes more difficult. In the luckiest case, you would have to search attentively in some hidden alley; in the worst case scenario, you would have to go Mestre (the part of the municipality of Venice that occupies the land just in front of the island) to be able to find what you need. My perception of Venice is that of a city emptied of its inhabitants and devoted to tourists. And, as I will describe later, such perception is not only mine.

⁷ “Anthropocene Detonators”. *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=ad-anthropocene-detonators&ttype=essay&cd=true>.

⁸ “Acceleration”. *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=ad-acceleration&ttype=essay&cd=true>.

But how does this relate to big cruise ships? If big cruise ships are to be considered as a feral entity, I must now turn to the human infrastructures responsible for this entity to become ‘undomesticated’.

Stefano is a high school professor. He teaches technical education in an artistic high school. The evening we meet, he confesses that the following day would be his last one as a teacher before retirement. We are in Sant’Elena gardens, one of the rare green and public areas of Venice. But drops of rain are falling heavily, so he invites me to continue our conversation in his house. It used to belong to his parents – he says, while we enter the old-fashioned white corridor. Stefano was born in Venice and has spent most of his life living in Sant’Elena, one of the neighbourhoods that have least been subjected to touristification. When I ask him about the development of the touristic sector in the city (referring also to cruise ship tourism), he tells me that its exceptional growth started when industries were moved to Marghera (the other terrestrial part of the Venetian municipality, just next to Mestre), but that it was also caused by market dynamics. A combination of intentional and involuntary choices, it would appear. Apart from being a Venetian and a teacher, Stefano is also an active part of a committee that has been fighting for the expulsion of big cruise ships from the lagoon, the Comitato No Grandi Navi (I will come back to this later). In a book edited by this committee, an account of the history of cruise ship tourism in Venice is provided: starting in the twentieth century, some infrastructural interventions were made in order to boost new productive activities. In this context, the commercial and touristic ports were created. Moreover, in the 1970s the canals were deepened to allow the transit of commercial and cruise ships (Fabbri, Tattara, Gregotti 2015).

The development of these touristic infrastructures has thus been pivotal for the further expansion of big cruise ship tourism and its feral effects, which will be analysed later. Indeed, as Bertocchi and Visentin (2019) point out, “the physical facility of a tourism destination entails the major tourism subsystem that affects the historical city” (6). Yet, considering solely the infrastructures is a partial and simplistic interpretation: the choices of the local administration have also determined an uncontrolled expansion of the touristic sector, including the one dependent on big cruise ships. On one hand, the neoliberal principles of free market and privatisation of public goods have been extensively followed, as it is proved by the liberalisation of retail stores and the privatisation of many post offices, schools and hospitals (Bertocchi, Visentin 2019; Dlabaja 2021). That is the case, for instance, of the hospital where Claudio, Venetian from birth and another historic member of the Comitato No Grandi Navi, had been treated during his childhood:

When I was a child I had diphtheria, so when I was eight I was sent to an island where there was a hospital for infectious diseases. That also became a hotel.

On the other hand, the inadequacy of regulatory measures paved the way to the feral expansion of big cruise ship tourism. Suffice it to mention that the harbour town development plan (*piano regolatore portuale*), the regulatory instrument aimed at managing the port system, dates back to 1908 for Venice's historic centre and 1965 for the area of Porto Marghera, and has not yet been thoroughly updated,⁹ thus failing to respond to the city's increasing needs of coping with the expansion of cruise ships arrivals. Indeed, the local administration has been repeatedly blamed for the "lack of initiatives", "inactivity", "emergency interventions, improvisations, paralysing conflicts, the prevailing of private interests" (Fabbri, Tattara, Gregotti 2015, 49; transl. by the Author), "lack of tourists' flow management and regulation of tourist facilities and infrastructures", "uncontrolled and unplanned strategies" (Bertocchi, Visentin 2019).

One major advancement, in this sense, was the Clini-Passera Inter-ministry Decree no. 79, issued in March 2012, which prohibits the transit of vessels over 40,000 tons in the St. Mark Channel and Giudecca Channel (art. 2). However, in the absence of alternative safe navigation routes, such decision was not implemented up until the emanation of the Draghi Decree no. 103, in July 2021, which launched a competition of ideas to identify alternative landing point for big cruise ships. The Fusina terminal, in Porto Marghera, was selected and is set to become operational in August 2024 (Ansa 2024). However, apart from diverting cruise ships' navigation routes, such decision does not limit their arrival; instead, the number of passengers is expected to grow by 9% compared to 2023, reaching 5wq (Delle Case 2024). This confirms what Bertocchi and Visentin (2019) and Dlabaja (2021) had already highlighted: when supposedly regulatory measures are implemented, they result ineffective at responding to the Venetians' needs and mostly devoted to promoting the interests of the touristic sector. Another blatant example, in this sense, is the creation of an entrance fee to access the city of Venice, which started its experimental phase in April 2024¹⁰ and has already been highly criticised by grassroots movements (Bison 2024), since, as Claudio stresses, "the ticket is completely useless, it will not reduce [the

⁹ Autorità di Sistema portuale del mare adriatico settentrionale, *Piani regolatori portuali*. <https://www.port.venice.it/governance/piani-e-programmi/piani-regolatori-portuali/>.

¹⁰ Città di Venezia, *Come funziona il contributo di accesso a Venezia*. <https://www.venezianaunica.it/it/content/come-funziona-il-contributo-di-accesso-venezia>.

number of tourists] by one person, it will only serve to raise more money". This strikes me: how is it possible that a local administration, elected by its residents, acts against the interests of its own citizens? To my doubts, Stefano has a ready answer:

Well, who's left in Venice? Red bourgeois, big professors, myself with my old parent's house... and then, all the people that live off tourism.

According to Claudio, what prevents regulatory measures from actually being implemented is the prominence of private interests over the collective ones: "There are huge interests at stake, huge. Just think of the hotel business... whole islands have become hotels". This becomes even clearer when it concerns big cruise ships management, where the interests of private companies become inextricably entangled with the political decisions. As Chiara, a thirty-five years old woman, who has lived in Venice for the past twelve years, participating in the activities of the Comitato No Grandi Navi since its creation, reminds me:

[The cruise ships] are not stopped because for them what it is more important is the economic flow that keeps coming in to the Costa, to MSC, to Royal Caribbean and all the various companies, rather than the damage they do. That was actually the political, economic choice. Why this? I don't know, the city hasn't profited or profits much from that... also because most of the shares held by the Venice Passenger Terminal are half regional public and the other half belongs to the cruise companies. So the interests are private anyway.

While the increased presence of big cruise ships in the lagoon of Venice and the consequent expansion of tourism brings some positive economic gains, as it is repeatedly stressed by mayors and port authorities (Trancoso González 2018), at the same time it generates unintended negative consequences, due to the fact that these feral entities (big cruise ships) have become so well entangled with human infrastructures (touristic facilities and political decisions) as to escape human control. Their feral qualities describe precisely the ways in which they have become feral in the presence of human infrastructures.¹¹

The most evident feral quality relating to big cruise ships is that of being uncontainable and it takes the form of overtourism. Indeed, such entities further enhance the wider dynamics of overtourism that

¹¹ "Feral Qualities". *Feral Atlas* (2021). <https://feralatlus.supdigital.org/index?text=fq-feral-qualities&ttype=essay&cd=true>.

affect the city of Venice (Dlabaja 2021). During the last decades, the flow of tourists has continued to rise, together with the expansion of touristic facilities (Bertocchi, Visentin 2019). Between 1997 and 2010, the number of cruise ship passengers increased by 440%, whereas the ships' landings increased by 263%, meaning that not only their number, but also their size increased. Today, 66,000 tourists arrive each day, around 30 million per year: of all of them, two and a half million travel on cruise ships (Trancoso González 2018). In this context, it is important to stress that overtourism and its related problems do not depend solely on the presence of big cruise ships. Venice attracts visitors in multiple ways and through various infrastructures: from those interested in cultural events, like the art Biennale, to long-distance travellers, who arrive by plane and book a B&B to stay several days. According to Bertocchi and others (2020), cruise ships tourism differs from the residential one insofar as it represents a form of "false day tourism" (11) that does not contribute much to the local economy. Moreover, it lacks a direct impact on housing facilities (Cristiano, Gonella 2020). Choosing to focus on the effect of big cruise ship tourism, however, does not imply that other forms of tourism are not equally impactful, or that they do not follow patterns similar to those referred to as "feral qualities" (Baldin, Bertocchi, Camatti 2024). Rather, the choice depends on the willingness to investigate the phenomenon under the framework of ferality, which suggests the need to concentrate on a single entity - in this case, big cruise ships. However, further research could expand this point, by applying the framework to other entities - such as the railway stations, airports, cultural festival, or booking platforms - and their "feral qualities" in relation to their entanglement with the city of Venice.

Going back to cruise ship overtourism, it can be argued that its ferality is expressed by the reiteration of words like "unlimited", "uncontrolled", "wildfire effect", "unplanned", "not controlled" when scholars try to describe it. Trancoso González even compares it to the spread of a pandemic (Bertocchi, Visentin 2019, 3-16; Trancoso González 2018, 37-8). Instead, when they consider potential solutions, words like "monitor", "control" and "regulate" are adopted (Bertocchi, Visentin 2019, 16). This somehow depicts the idea of an untamed process that needs to be domesticated.

As anticipated, the negative unintended consequences of such ferality are many and different. Some of them are directly linked to big cruise ships themselves, some others to the overtourism they participate in unleashing. During my conversation with Stefano, I ask him why the Comitato No Grandi Navi is against big cruise ships. He is eager to clarify that not all the people in the committee are against cruise ships themselves, but that "the common denominator is the ban of big cruise ships from the lagoon". This answer resonates with another perspective I had received just some days before, when I had participated

in setting up some stands around the city to sponsor a demonstration organised by the Comitato No Grandi Navi together with other local groups and associations. I was handing flyers around with Eleonora, a young student from the University of Venice, who is part of the university collective Li.S.C.. She had explained to me that the huge achievement of the Comitato No Grandi Navi had been that of creating an intergenerational movement that was broad in its reclamations. Indeed, it was precisely the vagueness of their claim that allowed such a wide public participation (they were able to gather 10,000 people in San Marco square in 2019). Within the committee, people take different stances on the subject of big cruise ships: some of them question them in principle, some other simply criticise their presence inside the lagoon. The important thing – Eleonora had told me – was not to fight for one specific solution, but to raise the question. This had encouraged a widespread popular support, because the movement was not seen as a “radical environmental movement led by people from social centres”.

Nevertheless, there are reasons to be against big cruise ships. This aspect was not so accentuated in 2012, when the committee was born. “But then Greta arrived, and with her the Fridays For Future movement...” Stefano explains to me. Therefore, now part of the committee is strongly against big cruise ships. Stefano appears quite convinced when he affirms that “cruise ship tourism is bad, it is unsustainable. In fact there are committee everywhere against it”. The most commonly mentioned reasons span from the visual impacts to the risk of collisions. Moreover, cruise ships contribute to air and water pollution, posing a direct threat to the residents’ health, but also exacerbating climate change (Trancoso González 2018; Fabbri, Tattara, Gregotti 2015).¹² Some of these problems are emphasised during my conversation with Chiara. She got to know many of the residents of Santa Marta, the neighbourhood located just next to what used to be the cruise ships’ terminal, and among the disturbances caused by their presence, she mentions that “the Internet would not work at home, you couldn’t see the television, there was always noise, all day long, glass vibrating, and an acrid smell...”.

Another problem that is referred to relates to the specificity of the lagoon of Venice and its fragile and delicate ecosystem (Trancoso González 2018; Fabbri, Tattara, Gregotti 2015). Interestingly, during a conference organised by the Comitato No Grandi Navi on 29 April 2022, one of its representatives had underlined that they are against big cruise ships “because we have seen them, we have seen their hulls”, therefore they know the damage they were causing to the lagoon. Chiara also confesses that one of the first impacts connected

¹² Comitato No Grandi Navi, *Cosa Chiediamo*. <http://www.nograndinavi.it/cosa-chiediamo-2/>.

to the presence of big cruise ships was the fear that stemmed from seeing them from the water:

Living in Giudecca, doing so many things by boat, going to so many places by boat, going to university or going out with friends or going to work, what I used to do was to cross the Giudecca Canal every day, which was the one concerned with the passage of the big ships. And of course, when you're with a barge that holds three, four people at the most, and you're in front of a big ship with five, six decks, let's say, you realise the impact that they have on the city, also for those who live it on the water, in the sense that you find yourself, I mean, you are actually scared.

However, the impact of big cruise ships extends beyond their mere presence, and must also include the repercussions of the overtourism to which they contribute. One of the ways in which overtourism affects cities is by causing the touristification of their historical centres, which are turned into commercial value (Dlabaja 2021). While I speak with Claudio, his eyes shimmer while he depicts the nights spent, in his young age, in the taverns that used to sustain the social fabric of the city, rather than the touristic business:

There was this city that you lived in until night. I've always been a bit a night owl, I would study after dinner and so on. Maybe I would finish at half past nine, half past ten, and go out, because it used to be full of taverns, where you would go and find a friend and have a glass of wine and chat. They used to be social meeting points, very, very frequent, so the whole city was alive.

Other dramatic changes brought about by the touristification of the city are the privatisation or disappearance of public infrastructures, the further withdrawal of everyday life shops and the rise of housing prices (Bertocchi, Visentin 2019; Dlabaja 2021). Claudio has experienced such change during his lifetime:

I am already very old, so I have lived almost a century in this city. When I was a child, the problem of tourism was already felt, but I remember playing in the *campi* ('squares') of Venice, with my child friends, with marbles and cards. And there was a newsstand every two *campi*. In Campo Santa Maria Formosa there used to be five, six vegetable markets, two fish markets. Campo Santa Margherita, up until fifteen years ago, used to have three fish markets, four vegetable markets, and today it has one and one.... Venice used to have dozens and dozens of small neighbourhood shops that have all slowly disappeared.

The privatisation and disappearance of public infrastructures is another major negative change. This is the case also for nursery schools. Chiara, for instance, who has a nine months old child, made a request for a school in Venice, but it was rejected, since the offer is not enough to meet the demands. Therefore, she saw herself forced to register her daughter in a school on the mainland. The same happened with her office, due to the inaccessibility of the rental rates:

We also tried to open the office in Venice, because most of the people who are registered are Venetian, they are Venetian workers who work in hotels and restaurants, so they work in tourism. But it is impossible to bear the cost of renting the office in Venice. We tried for a year then, unfortunately, it was really impossible to stay there economically.

In a survey distributed to around 6 000 people, Bertocchi and Visentin (2019) collected the major negative consequences felt by residents due to overtourism. They are the excessive number of tourists who crowd in the streets of the city, the scarcity of services for residents, the exorbitant costs of living and the absence of jobs unrelated to the touristic sector. Chiara's lived experience attunes with the previous points:

when you encounter a group of, I don't know, one hundred people passing a *calle* [street] and blocking it for twenty minutes, that is a cost for you, your personal time, that maybe you have to go to work.

Since big cruise ships and their connected overtourism disrupt the environment in which they are introduced in the ways described so far, thus altering the lives of the other inhabitants to the point of making it almost unliveable, according to the taxonomy of the Feral Atlas such entities fall within the feral quality of "toxic environment".¹³ The modality of their interference includes also pushing the systems to exceed its limits (thus undermining the conditions in which other entities can thrive), but also introducing new threats, for which the previous inhabitants lack sufficient defence mechanisms. Both these dynamics perfectly match with the way big cruise ship overtourism unfolds.

All of this leads to another apparently inevitable result, one that was signalled by the odd apparition of posters displaying the figure 49,999. They had been hanged overnight, filling the walls and corners of the streets of Venice, and I, among many others, had been

¹³ "Toxic Environment". *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=fq-toxic-environment&ttype=essay&cd=true>.

wondering what they could mean. The answer came on 28 May 2022, the day of the aforementioned demonstration. One of the bands that was playing on stage that day introduced one of its songs by stating that for the first time in the history of Venice, the number of its residents had dropped below 50,000. 49,999, indeed. The depopulation of the city is a direct consequence of the disruption of the lives of its inhabitants, brought about by big cruise ships overtourism. This effect is not limited to a single moment, but it stretches across generations, intensifying over time. In the *Feral Atlas*, this feral quality is called “legacy effects”.¹⁴ However, as I have already suggested before, I would argue that none of these outcomes had been forecasted or intentionally planned when the city opened up to big cruise ships tourism. Therefore, these entities are characterised by another feral quality, that of being a sort of “industrial stowaways”.¹⁵ If the authors of the *Feral Atlas* define industrial stowaways as “pests and pathogens unintentionally imported through large-scale commercial nursery trade”, what I have described so far are the ‘pathogenic’ consequences unintentionally caused by large-scale international cruise ship tourism.

4 The Venetian Plantationocene

The last feral quality that is worth mentioning with respect to big cruise ships goes by the name of “thrives with the plantation condition”¹⁶ and introduces another suitable conceptual tool for this analysis: the Plantationocene. The term was first used in 2014, during a conversation among some anthropologists around the idea of the Anthropocene (Haraway et al. 2016). As Moore (2016) has opted for Capitalocene in order to stress the role of capitalism in the current socio-ecological crisis, in that occasion Haraway proposed the use of Plantationocene to highlight some defining features of the current era, namely the global and long-distance circulation of capital investments, people and plants and the resulting simplification of landscapes, together with dynamics of homogenisation and control (Davis et al. 2019). Although such interpretation mainly refers to plant landscapes, I would argue that its meaning could be extended as to encompass also the processes characterising hybrid eco-social

¹⁴ “Legacy Effects”. *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=fq-legacy-effects&ttype=essay&cd=true>.

¹⁵ “Industrial Stowaways”. *Feral Atlas* (2021). <https://feralatlas.supdigital.org/index?text=fq-industrial-stowaways&ttype=essay&cd=true>.

¹⁶ “Thrives with the Plantation Condition”. *Feral Atlas*. (2021). <https://feralatlas.supdigital.org/index?text=fq-thrives-with-the-plantation-condition&ttype=essay&cd=true>.

places, where natural, human and non-human (feral) entities become entangled. That is the case of the Venice lagoon and its relation with big cruise ships and their feral qualities. Indeed, as it was previously mentioned, on one hand big cruise ship tourism is rendered possible by the high mobility of capital and people; on the other hand, at the local level it produces a social, cultural and economic simplification and homogenisation, whereby tourism appears to be at once the only possible economic activity and cultural identity of the city.

Unsurprisingly, a similar concept has emerged also within the vocabulary of local groups, associations and committees advocating for a different, more inclusive and caring city, many of which had participated in the demonstration of 28 May 2022. That day, many of them had appeared on stage, covering a variety of issues, from the problem of overtourism to the housing crisis, from the absence of public infrastructures to the need for the protection of the lagoon environment. During her speech, the representative of the group *Quartieri in movimento* (Neighbourhoods on the move), a determined and galvanised dark-haired woman, spoke passionately against

the touristic monoculture and its speculative projects: extracting profits from the territory through the exploitation of its common goods.

‘Touristic monoculture’ is the term that would resonate over and over in the context of such mobilisations. The affinity between the concept of the Plantationocene and that of touristic monoculture is striking. But it is also a confirmation of the fact that Haraway’s intuition was accurate, since it is mirrored by a local situation and by the words through which its protagonists have decided to describe it.

The term ‘touristic monoculture’ is adopted to criticise the idea of an economic development solely based on the expansion of the touristic sector. What is denounced about this axiom is that it overlooks the long-term negative consequences for the majority of the people and for the safeguard of the lagoon ecosystem, in the name of short-term benefits for a few. In fact, despite the economic advantages that tourism brings, the negative side-effects are too pervasive to be ignored. Apart from the ones already mentioned, there is another that deserves attention: it is the problem of the high vulnerability of monocultures (both literally and metaphorically speaking).

In his ethnography *Seeing like a State* (1998), Scott provides an illuminating account to illustrate this concept. He describes scientific forestry as the process whereby old-growth, complex forest would be replaced with orderly and easily manageable rows of trees, belonging to a much more limited range of species. This forest management plan was applied in Germany all along the nineteenth century with the aim of controlling, manipulating and measuring the forests’

yields and to maximise the profit generated by a single commodity (represented by timber, in that case). All that was not considered productive or efficient was eliminated. This proved effective in the short run, but after the second rotation of conifers had been planted, the negative long-term consequences started to arise, with the ultimate result that the production dropped by 20-30%. With the promise of maximising the return of one single commodity, an extremely complex and rich ecosystem had been disrupted, and this led to a further impoverishment. What had seemed a system able to isolate one fruitful item from which to extract the highest possible profit turned out to be the very recipe to irretrievably damage the whole system on which that item used to rely on. The problem at the core of scientific forestry had been that of overlooking all the factors unrelated to profitable production: in doing so, it had ignored the most important and underlying richness of forests (and, broadly speaking, of any ecosystem), that is its biodiversity. Ecology teaches us that diverse ecosystems are also the most resilient, meaning that they are more capable of absorbing disruptive inputs by adapting to them without collapsing. On the contrary, ecosystems composed by few species tend to be less resilient, and thus more vulnerable (Scott 1998).

Monocultures are the epitome of fragile and vulnerable ecosystems. Due to their radical simplification, they easily fall victims of external pests and pathogens that undermine the whole cultivation. Even though ecology studies the relations pertaining to natural ecosystems, the same analysis can be extended to socio-natural systems, such as the lagoon of Venice and its socio-political dynamics. As in the case of scientific forestry, the Venetian economic and cultural landscape has been radically simplified in the name of the touristic monoculture. This may have rendered some short-term benefits, but in the long run it appears to have destabilised the whole ecosystem in a way that is going to undermine the very basis of its capacity to provide profits. Indeed, as Dlabaja (2012) warns, “Venice could sink due to overtourism”, and not just metaphorically (166). The inherent weakness of an economic system uniquely based on tourism became blatant during the COVID-19 pandemic. Just as plant monocultures are fragile and tend to collapse when they are invaded by pests and pathogens, Venice’s economy has easily fallen down when the virus spread, and the touristic sector suddenly stopped (Salerno, Russo 2020). However, the fragility of the touristic monoculture goes beyond extraordinary situations, such as the pandemic. As the members of the Comitato with whom I spoke repeatedly stressed, a city relying solely on tourism becomes weaker, because it is emptied by its inhabitants. In the words of Claudio: “the city becomes a chrysalis”.

Hence, diversity is the key characteristic capable of counterbalancing the danger of vulnerability. This is true for real plantations as well as for the touristic monoculture in Venice. In fact, it is precisely

a diversified economy that the citizens present at that demonstration are advocating for, one resting upon other non-touristic sectors, such as that of the creative industry, renewable energy or new technologies (Dlabaja 2021). In their view, by reintroducing a similar economic diversification, many other problems, such as the touristification of the city and its progressive abandonment, would be solved at once. Of course, this represents only one perspective on the issue of overtourism in Venice and it is not necessarily shared by everyone, especially when it includes also the problem of big cruise ships. According to Trancoso González (2018), an extremely high percentage of citizens still perceive (big cruise ship) tourism as a positive source of income and employment. As Stefano pointed out during our conversation, “it is difficult to face the environment-work divide”, although when I asked him what kind of employment the touristic sector provides, he was also ready to admit that “of course, it is exploitation”, referring to the awful working condition in which the employees of the sector usually operate.

However, in spite of the resistance of all of those people that still have faith in the benefits obtained through (big cruise ship) tourism, grassroots responses proposing an alternative vision are multiplying, almost mirroring the feral expansion of big cruise ships. If these entities have increasingly entered the lagoon of Venice, bringing with them the pathogenic disruptive consequences so far examined, I would argue that grassroots movements such as Comitato No Grandi Navi or Quartieri in Movimento are the antibodies that the city is producing to respond to such external threats. Their transformative potential goes well beyond the critique they advance, since they also propose and enact the change they imagine for the city. The association *Poveglia per tutti* (Poveglia for Everyone),¹⁷ for instance, has been fighting for the last ten years against the privatisation of the Poveglia island, but, in doing so, has also advanced an alternative use for that space: the creation of a public urban park. To accomplish such project, meetings and weekends of collective work have been organised on the island, in order to re-establish the connection between the land and the community that is taking care of it. The VERAS association, on the other hand, is working in a similar direction, by planning an agroecological park and a renewable energy community on the Vignole island.¹⁸ These examples are accompanied by many others: the *Gruppo 25 Aprile* (25 April Group), working for a sustainable, inclusive and respectful tourism; *O.Cio Osservatorio*

17 Poveglia per tutti. https://www.facebook.com/povegliapertutti/about?locale=it_IT.

18 Associazione VERAS. <https://www.facebook.com/p/Associazione-VERAS-100070400553942/>.

Civico Indipendente sulla casa e residenzialità (Civic and Independent Observatory for housing and residency), established in 2018 to analyse the housing issue in insular Venice; *Venezia Autentica* (Authentic Venice), supporting and enhancing the local artisan community; and *Generazione 90* (Generation 90), an association of young Venetians working to discover new approaches and perspectives for a liveable city beyond just tourism (Bertocchi, Visentin 2019). The term 'ferality', then, appears apt to describe the uncontained expansion of such grassroots responses. Their heterogeneity, on the other hand, seems the most coherent reaction to the problems described by the Plantationocene concept. If, as it was argued, a homogenous economic and social fabric represents a threat for the survival of the city, the variety and biodiversity of grassroots actions are lifeblood that might revitalise this fragile Venetian socio-ecological system.

5 Conclusion

The issue of big cruise ships and overtourism in Venice is far from being a novel topic of research; however, the aim of this paper has been that of analysing an already well-known subject with new conceptual tools. In this endeavour, I have drawn mainly from two theoretical sources: the Feral Atlas, a comprehensive account of human and more-than-human eco-systemic interactions in the context of the Anthropocene, and the Plantationocene, a term coined by Haraway to encapsulate some of the determining aspects of our current epoch, such as that of the global circulation of plants, humans and capital, the homogenisation, simplification and exploitation of eco-social landscapes. It is with the help of these two critical lens that I have re-read the ecological, social and political dynamics regulating the relation between the lagoon of Venice, its human inhabitants and the more-than-human entities that interfere in this ecosystem, namely big cruise ships.

After having bridged the specific case of Venice with the wider trends of globalisation, international mobility and expansion of big cruise ship tourism, I have started investigating big cruise ships as feral entities, describing first the human infrastructures on which they depend - namely, touristic infrastructures and political decisions - and then providing an account of the feral qualities they are characterised by, i.e. being 'uncontainable', 'toxic environment', 'legacy effects', 'industrial stowaways' and 'thrives with the plantation condition'. The latter paved the way for the introduction of a second pivotal concept, that of the Plantationocene. Indeed, in the second section I have illustrated how such definition is suitable for describing the situation of overtourism in Venice, as it mirrors that of 'touristic monoculture' coined by local grassroots movements. Eventually,

emphasis was placed on the contrast between radical simplification and diversification, the latter being a means to save Venice from being overpowered by its own touristic economy. Ultimately, I have suggested that the grassroots movements' reactions, which are also spreading in a feral way, could be read as the inner defence mechanism of a city that is at once sick, but still filled with a glimpse of passion and desire to be inhabited, lived and restored, to provide a dignified life to the lagoon and its inhabitants.

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Haunted Sicilian Landscapes: Orazio Labbate's Petrovisions and the Italian Energy Hubris

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Abstract This paper explores the socio-environmental implications of energy extraction and production in Gela, Sicily. It examines narratives surrounding oil encounters and the manipulation of social and environmental consciousness by national energy companies. Two toxic narratives are examined: the formation of petrofictions and the use of myths and eco-efficiency rhetoric for greenwashing, drawing on environmental and energy humanities perspectives. Through a critical analysis of Orazio Labbate's novel *Suttaterra*, the paper explores the trauma induced by encounters with oil and environmental conflicts documented in Sicilian landscapes. It also examines the manipulation of public perception by national energy companies through mythological storytelling, using the example of Eni's offshore gas exploration project in Sicily. The paper points to the urgent need for a transition to sustainable energy practices and calls for greater environmental and energy justice in the region.

Keywords Energy. Toxic narratives. Sicily. Petrofictions. Environmental justice.

Summary 1 Questioning Gela: Exploring Environmental Impact and Energy Justice in Sicily. – 2 First Story: Oil Encounters and The Italian Petrofiction. – 3 Second Story: Energy *Hybris* and Eco-Transitions. – 4 Conclusion.



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1 Questioning Gela: Exploring Environmental Impact and Energy Justice in Sicily

What happened, my God, what happened in Gela, in the island, in the country in this dreadful time? What happened to the one who is here writing, is he an accomplice or an unaware killer? What happened to you who are reading?
(Vincenzo Consolo, *L'olivo e l'olivastro*, 1994)¹

What happened in Gela was that they discovered oil² and natural gas.³ And so, on the island, the dream of energy hubris dreamed by others happened. In this atrocious anthropogenic time of haunted geologies,⁴ writers craft narratives to make fuels tangible, visible, and readable, while readers witness the mourning of landscapes through oil-inked pages. Gela is in southern Sicily. It faces Africa. Yet materially, it is everywhere.

Gela is the omnipresence of petroleum-derived products in everyday life and the ubiquity of the movements they make possible. Its material and cultural body is multilayered: a gulf, a plain, an ancient Greek colony, the remains of concrete casemates,⁵ and unhealthy factories. A refinery and a petrochemical plant that constitute a chapter in epidemiological reports of national priority and an entry in the Environmental Justice Atlas. Talking about Gela means discussing the social significance of energy in the realms of climate justice and political commitments to an energy transition that addresses environmental concerns and promotes greater social justice. This is the main concern of this essay, which seeks to echo Consolo's call.

¹ "Cos'è successo, dio mio, cos'è successo a Gela, nell'isola, nel paese in questo atroce tempo? Cos'è successo a colui che qui scrive, complice o inconsapevole assassino? Cos'è successo a te che stai leggendo?" (Consolo 1994, 81). These penetrating questions, posed by the Sicilian writer Vincenzo Consolo, cut through the fabric of Gela's narrative, compelling readers to confront the repercussions of a collective environmental and social blindness. English translation in Bouchard, Lollini 2007, 34.

² "Oil fields, discovered in 1956, led to the construction of a petrochemical pole, in 1963" (cf. Di Mari et al. 2021, 486).

³ Between 2006 and 2008 Eni carries out exploration and drilling in the Sicilian channel and discovers undersea natural gas deposits just 20 km off the coast of Agrigento. Cf. Eni S.p.a. 2010.

⁴ On the concept of 'haunted landscapes' by forms of violence of technoscientific modernity, see Tsing et al. 2017, and especially the chapter on 'haunted geologies' by Nils Bubandt (2017).

⁵ At dawn on July 10, 1943, American and British soldiers of the Allied Army arrived in Gela, initiating the largest amphibious operation of World War II, the 'Operation Husky'. As soon as they landed on the Gela shores, they found the Axis troops entrenched in concrete bunkers and casemates, the remains of which can still be seen today. "They were built of 60-cm-thick concrete, equipped with three embrasures that allow the soldiers a 270° line of vision and moreover protected them from the splinters caused by bullets hitting the surface" (Salerno 2015, 185).

Sicily encompasses a wealth of extraordinary landscapes in which human and non-human agents share the same path of growth through addition and blending, as occurs in the material and temporal stratifications that make up the sedimentary rocks. It's no coincidence that the biological body of the island has been described as an "eloquent palimpsest" (Bufalino, Leone 1998, 24; transl. by P. Creagh). Its eloquence reveals the intimate intertwining of biological and literary elements that inspire people to connect with the natural world and seek a deeper understanding of their place within it. The metaphor of the palimpsest refers to the process of renewing the writing material (such as stone, metal, clay, parchment) by scraping. This suggests that both scars and new writings coexist within the fabric of the text, in our context, the fabric of the landscape. But what happens when we recognize that scars transcend resurgences? Quite simply, we are faced with an ecological conflict: a wide range of toxic practices and relationships that disproportionately affect already disadvantaged people while also altering the landscape. Gela and its surrounding archipelago of small towns in the province of Caltanissetta are privileged places to question the effects of an energy culture that feeds on sacrificed peripheries from the transdisciplinary perspective of the environmental humanities. Drawing from Marco Armiero's concept of "toxic narratives" (Armiero 2021), I explore two stories invoking energy crises and regimes spreading across the Mediterranean, whose consequences are visibly inscribed in the damaged body of Sicilian southern landscapes. Toxic narratives are tools of division and polarization as much in the natural and social body of damaged landscapes, fueling distrust, pessimism, and silencing injustice. They perpetuate a cycle of exploitation and oppression extending toxicity to social relations. My urge is to acknowledge the scars in a fabric that has been repeatedly scratched to make room for subsequent writings, as a philologist would do with a codex that has been altered but still bears visible traces of remains - and possibly of future remains. The first narrative deals with encounters with oil and the materialization of petrofictions. My interpretation illustrates the gradual infiltration of capitalist pollution into both social and geological realms, drawing inspiration from Amitav Ghosh's groundbreaking work "Petrofiction: The Oil Encounter and the Novel" (Ghosh 1992), a pivotal reference for understanding the intricate connections between literature and the oil industry. Ghosh's analysis highlights how the narratives surrounding oil extraction and consumption shape cultural and societal perceptions. This concept is particularly relevant to my analysis, as it provides a critical lens through which we can examine the socio-environmental implications of energy production. Ghosh's terminology, which originally focused on fiction explicitly about oil, has expanded within the burgeoning field of energy humanities, and

petrofiction now encompasses various genres and approaches that reflect on the impact of fossil fuel energy production on both society and our environmental imagination (Szeman 2012, 3). Scholars who have explored the presence of petrotxts in the field of Italian Studies, mainly with an ecocritical approach, have focused on the elemental nature of oil: viscous, omnipresent, but often invisible, as it appeared in the literature of the preindustrial and industrial age (Cesaretti 2020). More recent studies of petrotxts in Italian literature have tended to explore science fiction short stories, a less studied but fertile genre capable of imagining and embodying the invisibility of oil and fossil fuels (Malvestio 2023). When discussing the effects of oil on society, we often fall into the slippery trap of treating oil as a symbol or metonymy for energy rather than as an agentic substance. However, as Pinkus (2016) argues, a clear distinction between the two is crucial to dispelling the illusion that a transition to renewables alone will solve the problem of environmental justice. Our imagination should push us to approach texts where energy issues are not overtly addressed, and encounters with oil may not be immediately apparent, but gradually revealed through the web of relationships as the narrative unfolds. Born from the chthonic uprisings evoked by its title, Orazio Labbate's novel *Suttaterra* ('Underground', 2017) shines as a gothic outcry against the environmental devastation caused by the petrochemical industry in Gela. When read within the frameworks of material ecocriticism and energy humanities, Labbate's haunted landscapes strike me as a representation of the trauma induced by encounters with oil and documented environmental conflicts.

The second narrative deals with the manipulation of social and environmental awareness by the national energy company. These narratives use myths of the sea and the rhetoric of eco-efficiency to conceal greenwashing operations and environmental injustices, linking Mediterranean shores under the guise of the energy crisis. Indeed, they intersect with Europe's quest for gas autonomy from Russian suppliers and are intertwined with discussions around the UN Climate Change Conference COP28 and the Global Methane Pledge, positioning Sicily at the forefront of environmental commitments. The combined frameworks of energy humanities and material ecocriticism provide me with unique storytelling devices made of ruins of capital decay, such as the petrochemical complex of Gela and a web of futuristic techno-fossils buried under the Mediterranean Sea: gas pipelines and gathering manifolds, platforms, and a refinery. As Serenella Iovino elucidates, material ecocriticism is

an epistemological-critical project meant to both redesign the category of text and reframe the interpreter's role in the becoming of the examined reality. (Iovino 2016, 4)

Thus, landscapes and their landmarks emerge as protagonists of the narrative, illuminating the intertwined biological and literary dimensions within this narrative tapestry. The body of the landscape itself is where the energy hubris happens. Today, the palimpsest of the Sicilian landscape speaks eloquently of the uses and abuses of energy that have created a web of toxic narratives and biological relationships. As I write, Sicily is becoming an energy hub, connecting Europe to new sources of natural gas in North African countries. Despite the rapid decline in the cost of renewable energy technologies, Italy's energy plan continues to invest heavily in new gas infrastructure and storage technologies, reinforcing its presence in African regions rich in natural resources, including traditional fuels. This approach perpetuates a top-down scheme that masks the unsustainability of fossil fuels with ambiguous energy transition policies. Such a strategy raises environmental and energy justice concerns regarding new extraction activities in already damaged landscapes and the unequal distribution of the costs and benefits of energy access.

2 First Story: Oil Encounters and The Italian Petrofiction

The territory of Gela is a place of subterranean resurrection, bringing back all kinds of finds from the subsoil as well as from the sea. Pottery, coins, and Greek ships are associated with the first explorers from Rhodes and Crete who then inhabited Sicily. However, among these material remains that navigate us through the myths and logos of the ancient central Mediterranean, even more ancient fossils have plunged Gela into a 'dark pit', returning like something that could leap out of a petrofiction. The Great Acceleration, which made human agency a geological force, did not spare this deep southern corner of the island, which was shaken out of its internal resources. In 1956, the Italian National Oil Company (Agip) drilled crude oil from a pastoral landscape turning shepherds and farmers into workers. The oil was refined and poured out of the region, financing the industrial market of the north. From 1960, the refinery brought in specialized workers, doubled the population, built over the open countryside with cement, and contaminated the air with pet coke. By the end of the millennium, the city was known as the Texas of Italy. Sicily's oil had amazing potential, so its transformations fueled the production cycle of other chemical and synthetic substances, such as plastics, caustic soda, hydrochloric acid, and sulfuric acid. This is how, in 1963, the petrochemical complex, owned by Eni (National Hydrocarbon Agency), was born. Materially - and critically - speaking, the property of the material is not motionless, it tells us the outcome of the oil while exercising its agency. The distillation residue consists of steam gas and the

more tangible pet coke: defined as 'oil scum';⁶ this material was the fuel that fed the thermoelectric plant to produce electrical energy. Although the Ronchi Law (DL 22/1997) forbade the use of pet coke as a fuel to feed the refinery, along the way of capitalist progress, oil combustion had already started a slow transcorporeal contamination.⁷ Transcorporeality, as defined by Stacy Alaimo, refers to the interconnectedness and entanglement between human bodies and the larger material world, including biological, technological, economic, social, political, and other systems, processes, and events (Alaimo 2010). Since 1990, the cities of Gela, Niscemi, and Butera were declared as an Area at High Risk of Environmental Crisis. In 2000, a large portion of this territory was designated as a Reclamation Site of National Interest.⁸ The site includes a private industrial area, and public and marine areas, covering 51 km² (more than twice the area of Rome Municipality 1, which encompasses the city center, and 11 localities with a population of 167,300). Pollutants and chemical substances migrated into the exposed landscape and sedimented the perception of risk in carcinogenic corporeality. In 2002, the petrochemical plant was placed under seizure due to the high level of pollution found. The population was divided, on the one hand, between citizens who expressed their dissent and opposition and, on the other, between precarious workers who, in an event known as the 'pet coke revolt' demanded the dignity of their labor rights and the reopening of the plant. This is the schizophrenic outburst of a system that denies the destructive evidence of its poor landscape management. The ecological conflict is documented under the entry "Eni's Refinery in Gela" in the EjAtlas⁹ (Environmen-

6 Petroleum coke is the residue of petroleum refining, a toxic product containing carbon and other materials like sulfur and metals. The difference between coal and coke is that the latter emits between 30% and 80% more CO₂ per unit of weight. The Ronchi Law (DL 22/1997) regulated the management of waste, hazardous waste, and packaging waste and their classification to ensure high environmental protection. According to it, using pet coke as fuel to feed the refinery was defined as illegal, due to the high content of sulfur and heavy metals.

7 "Chemicals treated and emitted by Gela industries include sulfur dioxide, nitrogen oxide and dust related to refining activities, as well as ammonia, fluorine, phosphoric acid, dichloroethane, and cyanide" (Saitta, Pellizzoni 2010, 169).

8 Sites of National Interest (SIN) are "extensive portions of the national territory, of particular environmental value and understood in the various environmental matrices (including any surface water bodies and related sediments), identified by law, for the purposes of reclamation, on the basis of characteristics (of contamination and more) which involve a high health and ecological risk due to the population density or the extension of the site itself, as well as a significant socio-economic impact and risk for the assets of historical and cultural interest" (<https://bonifichesiticontaminati.mite.gov.it/sin/inquadramento/>). See <https://it.ejatlases.org/conflict/raffineria-eni-in-localita-piana-del-signore-gela>.

9 As described on the Atlas official website, the Atlas is directed by Leah Temper and Joan Martinez Alier and coordinated by Daniela Del Bene, at the Institute of Environmental Science and Technology (ICTA) at the Universitat Autònoma de Barcelona. It is

tal Justice Atlas) an international project that documents the material dimension of socio-environmental conflicts, not only in their economic consequences but especially in the systematic silencing of voices of dissent and to the exclusion of democratic participation and decision-making processes. In 2023 the update of the epidemiological evidence underlying the Sixth SENTIERI Report (Epidemiological Study of Residents in National Priority Contaminated Sites) promoted by the Italian Ministry of Health, highlighted an excess of mortality and hospitalization in populations living in proximity of contaminated sites of national interest (Zona et al. 2023). It also showed a higher risk of stomach, colorectal, and lung cancer sites, most closely associated with the principal pollutants in the Gela area, among citizens and workers (Zona et al. 2023, 256).

Until the late 1990s, low oil prices coincided with economic prosperity in Italy and Europe, with oil refining being Sicily's main economic activity. However, the financial crisis in 2008 marked a turning point, resulting in a fall in oil-based industrial production.¹⁰ This shift has certainly contributed to Eni turning its attention to offshore gas explorations, leading to the closure of many refineries, including the Gela refinery. The operations stopped in 2014 exposing the leftovers of this monstrous fire-breathing chimera. The giant gas flares of the refinery smokestacks disappeared, and from the still-burning embers of the Lord's Plain,¹¹ emerged a trilogy of black fire, the obscure fire of Orazio Labbate's petrofictions.

Wondering how to address resurgences from what's left out of these energy discourses and strategies led me to investigate critical readings that make the invisible bodily intimacy that connects our minds to a palpable place. These models give us visions of horrors we don't want to see, and landscapes we would rather like to forget. Stephanie LeMenager has powerfully explored the cultural dependence on oil and the ambiguous outcomes of encounters with oil in contemporary life. Her book *Living Oil: Petroleum Culture in the American Century* (LeMenager 2014) has quickly become a classic in energy humanities and environmental cultural studies for its striking methodology, which combines authorial writing with scholarly rigor. What is most striking about LeMenager's work is the act of bringing the "precedent outside" (LeMenager 2014, 2) into the academic

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¹⁰ Studies in energy and science engineering, as documented by Pagliaro, documented that "between 2008 and 2013 unemployment doubled because national income fell by 9%, per capita income by 11%, and industrial production by 25%" (Pagliaro, Meleguzzo 2020, 566).

¹¹ The Lord's Plain is a parcel that is part of the floodplain of the Plain of Gela.

archive: oil people, oil culture, oil landscapes, and the oil that lives in people, culture, and landscapes. In her own words

we experience ourselves... every day in oil, living within oil, breathing it, and registering it with our senses. (LeMenager 2014, 6)

This observation underscores the deep and intricate relationship we have with a substance derived from fossilized matter that was once a vital component of life itself. Indeed, as scholar Jennifer Wenzel noted, oil exhibits a compelling agency “with the suggestive force of a form of life” (Wenzel 2015, 505). A striking case of the intertwining of lifelines with petrochemical history is Orazio Labbate's *Suttaterra* (2017), which recreates the unforgiven earthly symbiosis with a landscape deeply contaminated by oil. This novel is the second chapter of a trilogy that traces the spell of petromodernity, expanding the boundaries of environmental memory while preserving the experience of oil's externalities. The narrative journey evolves from the uprising of industrialization shadowed in the first novel, *Lo Scuru* ('The Dark', 2014), to the onset of naturalized toxicity affecting people, objects, and spirits in the concluding episode, *Spirdu* ('Spirit', 2021). In *Suttaterra*, the petrochemical presence, filtered through literature, takes the form of a dark temple and an emblematic totem representing the corruption of nature and human existence.

The narrative unfolds as a tale of monstrous apparitions, spectral entities, and idols of a distorted, demonized Catholic religion, creating a Gothic-style odyssey. The central human character, Giuseppe Buscemi, is a Sicilian American mortician living in West Virginia. He lives in the shadow of his father, Razziddu, the protagonist of the first novel, *Lo Scuru*, who was exorcised in Sicily and is now a Sunday preacher. His father's mournful religion consists of a death cult of idolatry and local folklore: a personal religion born of a landscape seemingly forgotten by its gods. Giuseppe, trapped by his father's obsessions, tries to make a life for himself by working with the cadavers. He goes into business and marries, only to fall back into mourning as a newlywed. From the dead bride, Maria Boccadifuoco, he receives a letter from Sicily, where the two had their wedding and a cursed honeymoon while

venti, saturi di intrugli chimici, sgretolavano le rocce del promontorio di Manfria e si facevano sentire fin dentro la cattedrale. (Labbate 2017, 33)

winds saturated with chemical concoctions crumbled the rocks of the Manfria promontory and were felt all the way to the cathedral.¹²

¹² These translations and the following are by the Author.

Driven by memories of his evil father and visions that have haunted his mind, he embarks on an oil ship to return to the island. In the 'kingdom of Gela', Giuseppe meets the dwarf Alfonsino Scibetta, a sort of prophet of the petrochemical temple, an apostle of an infernal Madonna who poisons land, water, soil, and air from the chimneys. It is he who narrates Giuseppe's encounters:

ci sono scheletri e catrame sotto la sabbia. Afrore di benzina vortica nell'aria... sostanze velenose da bere.

There are skeletons and tar under the sand. The stench of gasoline swirls in the air [...] poisonous substances to drink. (Labbate 2017, 5)

As the title suggests, this novel delves further into the wounds of the landscape, penetrating beneath the veil of suspended particulate matter in the air and the blackened sands of the Mediterranean, into the heart of living beings, reaching the depths of their consciousness. The image of the sea as a viscous quagmire, silenced from any call to life, is very eloquent, indicating the profound influence of oil and its agency in shaping even the soundscape:

Dal Mediterraneo non si odono più risalire le scricchiolanti ombre di pesce che giungevano alla corte dei miei sogni, elettriche e furiose, scatenandosi dall'acqua fino alla mente. (5)

From the Mediterranean you can no longer hear the creaking shadows of fish that came to the court of my dreams, electric and furious, unleashing themselves from the water to the mind.

The view of a blackened sea, silenced by the voices of birds and fish, looks like the retrospective of an oil spill when the sound of crashing waves is eerily muted by the thick layer of oil accumulated in the water. Ghostly animals beg the toxic Mother of the Temple:

Madre! Madre! Perché ci hai abbandonato? Madre! Perché ci hai avvelenato con il tuo latte? (6)

Mother! Mother! Why have you abandoned us? Mother! Why have you poisoned us with your milk?

In such a haunted environment, the sole conceivable homecoming is a bodily reunification with the toxic realm of the petrochemical plant, a sinister place of living oil and performing chemicals where everything reeks, and stinks. Giuseppe encapsulates the interconnectivity and mutual influence between human bodies and the wider

blackened landscape, as exemplified by the phrase “i nostri corpi sono assemblee” (our bodies are assemblies; Labbate 2017, 19). The narration of toxic transcorporeality takes shape as an equation, with the protagonist articulating it through short, lapidary sentences:

La benzina nei cuori. I barili di petrolio che contengono cuori. I cuori del Petrolchimico. (48)

Gasoline in hearts, oil barrels containing hearts. Petrochemical hearts.

Everything is poisoned by crude oil. Even the sacred emblems of Catholic iconography are not spared, rather, they become unwitting deities within the “castello metallico” (the metallic castle; 60). This transformation becomes evident in passages such as the following:

In capo a una torre d'alluminio [...] la Madonna esaminava il paed saggio con occhi di capra [...] si trovava lassù come un'immagine votiva dipinta a chiedere protezione sulla raffineria. (92)

On the top of an aluminum tower [...] Our Lady examined the landscape with goat's eyes [...] She stood up there like a painted votive image asking for protection over the refinery.

In resonance with Amitav Ghosh, oil encounters in this novel “verge on the unspeakable, the pornographic” (Ghosh 1992). This effect is reinforced by the language and style employed. Orazio Labbate inhabits the Sicilian language endowing the vernacular with an intimate and resurgent function. Throughout his trilogy, Sicilian serves as the language of ritual and spell, aiding to visualize how the landscape embodies mythologies of ancient and contemporary narratives, including toxic ones. Born in Mazzarino, and raised between Butera and Gela, Labbate experienced firsthand the physical dimension of the ecological disaster in 1990, when these cities were declared as areas at high risk of environmental risk. In his writing, there exists a kinship with the Southern Gothic tradition of Faulkner, O'Connor, and McCarthy within the same belt region of the US Deep South (Alabama, Florida, Georgia, Louisiana, Mississippi, North Carolina, South Carolina, and Texas) where the term ‘environmental justice’ emerged in the 1980s. This term refers to events and resistance to pollution within primarily Black American communities, responding to the unjust practices of siting environmental hazards, such as landfills and chemical waste dumps, in already disadvantaged areas (Coolsaet 2021). Labbate chose to write about the Texan metamorphosis of Sicily, without neglecting the ecological cost of this metamorphosis and who paid for it. He chose to narrate and infuse his

literature with Sicilian because the dialect has a deep poetic connection to the landscapes he describes. The environmental memory of these places finds expression in the linguistic dimension, echoing Agamben's assertion that "before inhabiting a physical territory, people have their dwelling in a language" (transl. by the Author).¹³

Labbate's gothic imagery gives us an honest warning not to be complicit in energy-depriving policies. It is a "cautionary tale" (Iovino 2022, 11) against the myth of energy prosperity structured around fossil fuels. His narrative unravels a reality centered on the toxicity of a neglected locale, emphasizing the responsibility inherent in storytelling. It is noteworthy that the writer published his debut novel, *Lo Scuru*, amidst the cessations of petrochemical activities in 2014. However, the closure of the petrochemical operations does not mark the end of energy hubris, as history seems to repeat itself through new energy projects. *Suttaterra's* epilogue, where Giuseppe Buscemi repeatedly dies as he crashes from the petrochemical plant to the underground, symbolizes a relentless cycle of trauma induced by the encounter with oil and environmental conflict:

È da innumerevoli eoni che Giuseppe Buscemi si lancia dal Petrochimico. Cade senza cuore e dal mare gelido arriva senza cuore fin sottoterra [...] Misero, il suo corpo nel vuoto non si placherà di morire. (Labbate 2017, 121)

Countless eons have passed since Giuseppe Buscemi threw himself from the top of the Petrochemical. He falls heartlessly and comes to earth heartlessly from the icy sea. [...] Miserable, his body in the void will never rest from dying.

The end of Buscemi, an end that continues, is in perfect correspondence with the story of future events conveyed by the country's energy choices. Despite the closure of 2014, Eni obtained a favorable judgment of environmental compatibility for the 'Ibleo Offshore Project - Campi Gas Argo and Cassiopea'. This marks the beginning of the second story I want to tell. A story that revolves around the timeless dream of generating clean energy from nothing.

So, what remains? It is the ongoing task of continuing to tell our stories and organize our memories in a new chapter, much like Orazio Labbate did, trying to think better with and in the body of the landscape.

¹³ <https://www.youtube.com/watch?v=ZDg9UDfJtV4>.

3 Second Story: Energy *Hybris* and Eco-Transitions

The petrochemical complex that has been built on Gela's ancient shores created a human-disturbed landscape that today spreads its energy hold to the opposite shores of the Mediterranean, from Libya to Algeria passing through Tunisia. In a time of war and raging climate change, new gas discoveries offshore Sicily have catalyzed a dual response: a national, neurotic drive towards energy autarchy, and an international push to control energy trade dynamics, aimed to loosen Italian (and European) dependency upon Russia. This unfolding political agenda is reshaping the landscape as I write.

The EjaAtlas's database has another entry for ecologic conflicts in Gela. It's called "Eni's Ibleo offshore platform"¹⁴ and discusses a project first presented in 2010 by Eni based on the exploitation of fossil fuels offshore Licata (Agrigento) but also linked to the conversion of the Gela refinery into a biorefinery.¹⁵ In 2014, the aforementioned 'Ibleo Offshore Project', obtained a favorable judgment of environmental compatibility under the new name of 'Ibleo Offshore Project - Campi gas Argo e Cassiopea'. In the same year, Greenpeace, WWF, Sicilian municipalities, and other civil and environmental associations demonstrated that the project was located within protected areas such as an important natural bird reserve,¹⁶ and a Site of Community Interest (SIC).¹⁷ This chain of events, which should be understood as a distributional energy injustice against already affected communities, is a matter of procedural energy injustice as acknowledged by Rosie Day

in terms of lack of informed consent and lack of restorative justice, as marginalized communities struggle to get access to legal redress and compensation. (Day 2021, 162)

Indeed, the protests delayed new drilling operations. Over 10 years, the original project was updated and remodeled and today is known

¹⁴ Cf. <https://it.ejatlas.org/conflict/piattaforma-ibleo-eni-spa>.

¹⁵ For a complete reconstruction of the plant conversion and startup of the biorefinery cf. Giavarini, Trifirò 2021.

¹⁶ "The Biviere di Gela Nature Reserve was established to protect the largest natural coastal lake in Sicily, which is also a staging area for waterfowl of international importance. It constitutes one of the most important staging and wintering areas for numerous species of migratory birds" (transl. by the Author). Cf. <https://orbs.regione.sicilia.it/aree-protette/riserve-naturali-siciliane/208-riserva-naturale-biviere-di-gela.html>.

¹⁷ Sites of national interest are very large, contaminated areas with health and ecological risks and harm to cultural and environmental assets that require remediation. Sites are nominated, classified and regulated by the State, and of Article 252, paragraph 1 of Legislative Decree 152/06 and ss.mm.ii commonly referred to as the Consolidated Environmental Act (TUA).

by the elegant name of 'Cassiopea Project'. This submarine production facility includes: 1) the construction of a submarine production system (4 new wells in two offshore fields, Argo and Cassiopeia); 2) The laying of an underwater pipeline linking the wells to the coast up to the Gela Refinery where 3) the installation of a new gas treatment and compression plant is planned. From there the gas will be fed into the national network. To comply with the European Union directives,¹⁸ and to break free from dependence on Russian gas, one of the stated goals is to promote and greening of the transition along the entire energy supply chain. This includes extending the life of infrastructure through the eco-design of new facilities and the conversion and upgrading of existing ones. Eni used this objective to obtain state concessions for the onshore section of the Cassiopeia project, which involves the reuse of the Gela Refinery so that the construction of new gas processing and compression facilities remained in the background. The operation continued until January 2023, when Prime Minister Giorgia Meloni, accompanied by Eni's CEO Claudio Descalzi, visited some African countries. Meloni has announced an energy plan that would make Italy a European natural gas hub, and Sicily the first landing point for new supplies from African countries in exchange for a reduction in migratory flows. On January 28, 2023, visiting Libya, Giorgia Meloni not only signed agreements on gas and migration of energy resources but also assured the Libyan Coast Guard of five boats to intercept and repatriate migrants.¹⁹

Eni's choice to name the project Cassiopea and Argo carries significant symbolism borrowed from marine myths, shedding light on the company's energy policy around the Sicilian offshore platforms and its use of greenwashing rhetoric strategies. The name Argo, referencing Jason's legendary ship, plays on the association of the mythical vessel and the Argonauts' explorations, aligning with Eni's mobile

18 FIT FOR -55% - Ready for 55% refers to the EU's target of reducing net greenhouse gas emissions by at least 55% by 2030. REPowerEU introduced new energy security measures after the outbreak of the Ukrainian war.

19 The Memorandum of Understanding between Italy and Libya, signed in 2017, was renewed for three years on February 2, 2023. The memorandum committed the two countries to curb immigration with a garrison strategy in mind. "While Italy is providing the North African country with investments to further economic development and stability as well as vessels and border security instruments, Libya is intercepting boats of migrants at sea and preventing people from departing its territory to reach Europe" (Vari 2020). Cf. https://repository.uchastings.edu/hastings_international_comparative_law_review/vol43/iss1/5. According to the International Organization for Migration (IOM): "Between the end of 2017 and the end of 2022, over one hundred thousand people were intercepted and brought back to Libya, many of whom were held in detention centers" (transl. by the Author). Cf. https://www.repubblica.it/solidarieta/profughi/2023/02/02/news/memorandum_italialibia_roma_aumenta_i_finanziamenti_per_respingere_i_migranti_verso_le_galere_di_tripoli_khoms_misurata-386168186/.

platforms searching for their 'fleece' – energy resources. Conversely, the name Cassiopeia subtly invokes pareidolia,²⁰ linking the placement of underwater wells with the disposition of stars in the homonym constellation. However, Eni's naming strategy for its energy installations is deceptive and toxic, both discursively and materially. While Cassiopeia may evoke marine myth for some,²¹ it serves as a cautionary tale of human arrogance, emphasizing the dangers of human exceptionalism. It reminds us of the Mediterranean as a place teeming with dynamic forces beyond human control and the awareness *hybris* means precisely arrogance.

Furthermore, the eco-efficiency paradigm advocated by Eni ought to "blur the distinctions between fuels and energy" (Pinkus 2016, 3). As Pinkus argued, fossil fuels, whether solid, liquid, or gaseous, are not an immanent manifestation of energy but are materials with a still latent agency. In them, we should recognize the "vibrancy" of the matter (Bennett 2010) rather than commodities and profit. Imagining these materials outside the marketization of energy could help alleviate dependence on them. However, in Italy, not only the names but also the narrative of constructing an umbilical cord connecting the Argos and Cassiopeia wells to the coast takes on a mythological scale. This epochal venture is portrayed as a solution to energy security and emissions issues, not only for Italy but also for other European countries, with Sicily as a pivotal energy hub.

Referring to Sicily as an international energy hub would result in a physical and memorial alteration of its places. This means not learning from the past, breaking the foundational link with places, persevering in *hybris*, and silencing the warning of myth. Nevertheless, it is effective... politically effective. Especially in legitimizing a narrative that silences environmental and humanitarian injustice in the name of emergency.

This story has its latest twist at the United Nations Climate Change Conference in Dubai (COP28),²² where it became clearer how energy, environmental, and social policies are intertwined under the banner

20 Pareidolia is the tendency to perceive familiar or meaningful images in random visual patterns, such as seeing shapes in clouds or recognizing faces or objects in constellations.

21 The story of such a beautiful queen who thinks she's exceptional. She overflows with pride, thinking that she alone can win the beauty of an entire group of nereids, but her arrogance sets in motion forces beyond her control. The punishment of the god from the bottom of the sea does not fall only on her but on her entire kingdom and puts at risk the innocent life of her daughter, Andromeda.

22 Held between 30 November and 13 December 2023 in Dubai, Arab Emirates, The COP28 UN Climate Change Conference was particularly important because countries responded with a decision on how to accelerate climate action across all areas by 2030, including a call on governments to speed up the transition away from fossil fuels to renewables such as wind and solar power; cf. <https://unfccc.int/cop28>.

of justice. During COP28, Prime Minister Mia Mottley of Barbados advocated for increased regulations of methane and other non-CO2 greenhouse gases (GHGs), emphasizing the need for both nations and oil and gas corporations to adhere to the established parameters of the Global Methane Pledge. This initiative commits participating countries to work together to achieve a collective reduction in methane emissions by at least 30% below 2020 levels by 2030. At the same time, the Prime Minister of Italy introduced the Mattei Plan, 70% funded by the Italian Climate Fund to finance projects in emerging and developing countries. The Meloni government's plan bears the name of Enrico Mattei, the historic founder of Eni from the ashes of the fascist Agip, whose philosophy was to share the benefits of resource exploitation with resource-rich and generally less developed countries. Although it is well known how this attitude in the company crashed along with the plane that was supposed to take Mattei back to Milan from Catania.. Rhetoric counts as much as facts. Eni will be a key player in the initiative to make Italy an energy hub for the transportation of natural gas supplies from Africa to the rest of Europe. The Mattei plan has five key pillars: education and training; agriculture; health; water; and energy. The prime minister stressed the vital need to train and educate African countries to develop a skilled workforce capable of building key infrastructure. She also reaffirmed Italy's commitments to providing technological support to expand arable land and the critical role of agriculture in terms of food security. The most eloquent comment on this 'partnership' plan came from the African Union Commission Chair, Moussa Faki:

Signora presidente del Consiglio, sul Piano Mattei che propono avremmo auspicato di essere consultati. L'Africa è pronta a discutere contorni e modalità dell'attuazione. Insisto sulla necessità di passare dalle parole ai fatti, non ci possiamo più accontentare di promesse, spesso non mantenute.

Madam Prime Minister, on the Mattei Plan you propose we would have hoped to be consulted. Africa is ready to discuss the contours and modalities of implementation. I insist on the need to move from words to deeds, we can no longer be satisfied with promises, often broken.²³

Considering these negotiations, it seems clear that we are facing a plan prioritizing energy security over energy justice on both a regional and international scale.

²³ Transl. by the Author. These words were spoken by President Moussa Faki at the *Italy-Africa Summit* in January 2024, held in Rome; see https://finanza.repubblica.it/Pages/News/Item.aspx?ID=5_2024-01-30_TLB.

4 Conclusion

Silence in literature is a rhetorical act, not merely the absence of words. Toxic narratives surrounding energy use and abuse often silence environmental injustices, obscuring the recognition of pollution as a complex mix of harmful chemicals and damaging discourses (Iovino 2016). Conversely, Orazio Labbate's petrovisions in *Suttaterra* depict a landscape scarred by ecological conflicts, with each scar symbolizing both a gash in environmental justice and a suture in collective memory. Through Labbate's gothic imagery, the landscape is saturated with the presence of oil, offering a critical perspective on the lasting impact of the petrochemical industry on Gela's environment and its people. As such, Labbate's narrative presents a cautionary tale of energy hubris while acknowledging ongoing environmental challenges.

In this troubling context, the storied palimpsest of Sicily reveals both the toxicity and the empathy necessary to narrate a territory often considered marginal and sacrificial to energy politics' greed. As African dissent and environmental justice movements resurface, there is growing recognition that energy discourses must expand beyond industrial infrastructure. This expansion creates space for silenced histories to dismantle toxic narratives of oblivion and reimagine them within more sustainable frameworks.

Eventually, Sicily is once again becoming a narrative mangle, energizing international corridors and breaking the silence on the environmental injustices that recur cyclically in the Mediterranean Sea like tidal currents.

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Anatomy Lessons: Michele Beevors as Eco-Political Agent

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Abstract This article responds to the large scale sculptural work by eco-political artist Michele Beevors, whose work has recently been extensively exhibited in New Zealand, Australia, and Austria. She brings her audience close to the tragedies of eco-extinction and the brutalities of human interaction with our vulnerable animal co-species. The article considers her work through four frames: 1. Violence: Dissection and Restitution; 2. Death: Specimen and Requiem; 3. Grief: Solastalgia and Entanglement; and 4. Labour: Materiality and Companionship. Through these four frames, the artist's exploration of human relationships with non-human forms of life is highlighted as based in decolonial, feminist and activist values. The text includes memories and reflections from the author's life where relevant to the themes presented by the artist.

Keywords Sculpture. Eco-political. Animal ethics. Extinction. Solastalgia. Care.

Summary 1 Introduction. – 2 Violence: Dissection and Restitution. – 3 Death: Specimen and Requiem. – 4 Grief: Solastalgia and Entanglement. – 5 Labour: Materiality and Companionship. – 6 Conclusion.



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1 Introduction

The animals of the world exist for their own reasons...
Encouraging others to respect animals... is part of my
work in this world. (Alice Walker in Outka 2008, 11)

Twenty years ago, Michele Beevors moved from Sydney to Dunedin in New Zealand's South Island. She arrived at the Dunedin School of Art at Otago Polytechnic as the new Head of Sculpture, an institution where we worked together for the last two decades. Beevors holds postgraduate degrees from the Australian National University in Canberra and from Columbia University in New York. She has exhibited her work in Australia, New Zealand, and Austria. Her career in Australia included tertiary teaching in art history and sculpture prior to locating to New Zealand. In a recent interview (Fox 2022) she mentioned that she set out to buy wool to knit a hat against the newly experienced cold weather of her adopted environment and then thought, "wait, I could make much more of this material and of this technique as a sculptor". The results of this epiphany is now clear to see: a body of compelling sculptural work on animal exploitation and extinction, which has variously been described as "sad splendour" and as showing "the realities of species loss" (Freeman 2022).

Looking at the sculptures one sees them range from very small (a fish, an army of frogs) to medium size (a tortoise, a koala) to very large (an elephant, a giraffe). Beevors says that scale is important in her work (Fox 2022). It brings the viewer close or closer or overwhelms them with size: different kinds of attention are invited. Research for the work took her to visit anatomy museums in Sydney, Paris, and Vienna and to focus on animal skeletons in Tūhura Otago Museum in Dunedin. The making process then included measuring, drawing, patternmaking, cutting, creating armatures and filling, sourcing wool in different colours (mindful of animal markings) and then the laborious work of knitting to cover the interior structure. Some titles reflect the scientific research, some refer to specific animals, some have a deceptively childlike quality (reminiscent of cuddly childhood toys). Emma Burns talks about the sculptured material being soft, while the subject of the works remains hard (Oktay 2022).

This article partially reproduces a limited-edition catalogue text by the author which accompanied an exhibition titled *Anatomy Lessons: Michele Beevors*, held at The Dowse Art Museum, Lower Hutt, Wellington, Aotearoa New Zealand in 2023-24.

Author:¹ I grew up and worked in South Africa for half of my life. Seeing animals in the wild is part of my lived experience. It is not possible to explain in words the awe one experiences when feeling a parade of elephants moving the earth in slow motion amongst the trees or seeing a herd of giraffe loping gracefully across wide grassland in the Kruger National Park between South Africa and Mozambique. Currently, I am a sponsor for the Giraffe Conservation Foundation in Southern Africa. Recently, this foundation moved thirty giraffe from Namibia to their original home in Angola from where the species had been displaced due to war, poaching, and habitat loss. Executive Director Stephanie Fennessy says that reintroducing giraffe there will help to restore ecological balance as giraffes are great pollinators. (Chepape 2023)

Such respect for these animals have not always been evident. Since the time of Marco Polo's journeys along the Silk Route in the thirteenth century, giraffe were shipped from Africa as gifts to the Emperor of China, many of whom died in the process. In 2003, I cried when visiting a zoo near Christchurch in New Zealand and saw two lonely giraffe standing in the cold rain in a fenced enclosure. With Beevors, it pains me deeply to see online images of American Tess Thompson Talley posing triumphantly with a shot giraffe in South Africa, 2018. Talley said that shooting that giraffe was a life's dream come true for her. (Abraham 2018)

Beevors is quoted (Fox 2022) as saying that care is embedded in the knitting of her animals. This care has been experienced by visitors to the exhibitions held in recent times at various galleries in Vienna, Austria, and New Zealand's South Island. One of the most recent showed twelve works in a central space within the Animal Attic of Tūhura Otago Museum in Dunedin. The works - acting as a critical counterpoint - were surrounded on all sides by galleries of taxidermised animals, and cabinets of curiosities demonstrating the eighteenth-twentieth century European obsession with collecting, preserving, and continuing control over animals hunted, snared, caught, gifted, traded, and categorised. Her exhibition elicited overwhelming response. Henceforth, it will not be possible to omit her twenty-year project from discussions around art and animal ethics. The work is far more than an illustration of care for animals. Ernst van Alphen writes about

1 'Author' here - and in three further instances - indicates the voice of the writer, not the artist. These memories or reflections are inserted into the text as pertinent to the artist's themes.

...the power of art to transform ways in which cultural issues are being conceived. Art is a laboratory where experiments are conducted that shape thought into visual and imaginative ways of framing the pain points of a culture [...] thanks to art's experimenting with its limits, it is [however] not 'just' intellectual [but] in the strongest possible sense of the word *aesthetic* – binding the senses through an indelible bond between the subject and the world it tries so hard to inhabit. (Van Alphen 2005, XIII, XXII)

The following parts of this text considers Beevors' *Anatomy Lessons* through the device of four frames. With her, I agree, however, that sets (or categories) have "fuzzy borders when the terrain is definitely complex" (Beevors 2020a, 5). However, the four frames are useful in trying to untangle some of the many aspects of her work, including her legacy after twenty years as Head of Sculpture in the Dunedin School of Art. The article is conceived within the context of the environmental humanities as relevant to the visual arts. Victoria University of Wellington in New Zealand points out that the environmental humanities

is a broad term for humanities disciplines as they are applied to thinking about environmental questions and responding to environmental crises [...] [they] include a wide range of disciplines, from Ecocriticism (the criticism of nature writing and the treatment of the environment in literature, Ecomedia (the criticism of media through an environmental lens), Environmental Philosophy, and Environmental Politics.²

Cecilia Novero argues that the visual arts can illuminate and crystallise the concerns of the environmental humanities in the form of ecocriticism (2018, 1).

2 Violence: Dissection and Restitution

One of the penalties of an ecological education is that one lives alone in a world of wounds. (Aldo Leopold in Bogard 2023, 5)

The objects in anatomical museums and laboratories conjure up mental images of violent acts such as clamping, paring, cutting, ripping, sectioning, probing, wounding, and invasive gazing. We know

² Victoria University of Wellington/te Herenga Waka, Environmental Humanities. <https://www.wgtn.ac.nz/science/schools/science-in-society/research/environmental-humanities>.

paintings such as Rembrandt's *The Anatomy Lesson of Dr Nicolaes Tulp* (1632), in which we see the cadaver of an unfortunate person displayed/splayed and offered up to the viewer's intrusive gaze. A group of gentlemen (physicians) in black with white lace collars look intently at the anatomical revelations they need to bolster their knowledge of the human body via cadavers sourced from prisons or cemeteries for the poor.

We know of the *Theatrum Anatomicum* once used as a lecture room in the round but also resembling a theatre, where anatomical dissections took place as training sessions for medical students. In Padua, Northern Italy, the first permanent one was built in 1595 and is now still preserved in the Palazzo Bo for visitors to see how these spaces operated for many centuries.

Beevors encountered the results of anatomical dissection in large cities but also on a smaller scale in the W.D. Trotter Anatomy Museum of the University of Otago in Dunedin. Anatomical specimens – both human and animal – are preserved there as training material for medical students. One can also encounter the hierarchical categorisation of species – from insects on the ground floor to anatomical waxes of the human body on the top floor of the Museo La Specola in Florence, of which the name refers to observation or the scientific gaze. In the case of animals, we also know about the practice of vivisection, namely surgical experimentation on live animals, the physical results of which are rarely shown or acknowledged publicly.

We also know about the complicity of governments and corporations: money made from tourist safaris, hunting trophies, cosmetics sales, pharmaceuticals, and so forth. Beevors points out:

[...] representations of the animal [...] appeared everywhere in modern capitalism. The animal as material substance in the meat industry (and the pet food industry, who put the gelatine in silver gelatine photography) rose alongside. In advertising, animals appeared as the selling point of cars at one end (think of the brand Jaguar and the speed it implies) and, at the other, Louie the Fly as a popular brand of fly spray designed to kill poor Louie. In popular culture, the animal appeared – from Disneyfied versions of rabbits, mice and deer, to the nature documentary where the animal/camera nexus brings the violence of real life into the home. (2020b, 95)

Looking at Beevors' large giraffe works titled *Talley's Giraffe* and *Zarafa* [fig. 1], we are confronted with references to actual animals, animals who lived and breathed and freely roamed the veld at some point in time: Talley's before he was shot by the American hunter mentioned earlier, and dissected to become meat, decorative cushions and a gun case; Zarafa before she was travelled from Africa to live for eighteen years in the confines of the Jardin des Plantes in



Figure 1 Michele Beevors, *Zarafa*. 2021. Wool and mixed media, 4,400 × 2,000 × 1,000 mm. Northern giraffe, *Giraffa camelopardalis*. Classification status: Vulnerable. Courtesy of artist Michele Beevors and photographer Adrian Hall

Paris as a gift from an Egyptian ruler to King Charles X of France. Beevors shows us their skeletons and Talley's distorted and half-dis-membered limbs. The violence still haunts us in these works. However, restitution occurs, how? The skeletons are respected for their scale and anatomical integrity and also transformed into knitted sculptural surfaces to cover their humiliation. Giuliana Bruno writes: "surface matters, and it has depth [it is an] enveloping substance [...] 'feeling into' that is empathy" (2014, 4, 5, 9). I am reminded of Beevors saying that care is embedded in the knitting.

In an article titled "The Evolving Ethics of Anatomy: Dissecting an Unethical Past in Order to Prepare for a Future of Ethical Anatomical Practices" Amber R. Cromer (2022) joins a growing body of scholars who acknowledge the violations of the past while attempting to envisage a future for this practice which is based on consent

and respect. Recent publications – for example by Elizabeth Ormandy et al. (2022) – on animal dissection assert the efficacy of new technology and argue strongly for the end of animal dissection, using the three principles of replacement, reduction, and refinement (to avoid extent and pain). Beevors' work goes much, much further. In contrast with Van Alphen's somewhat cerebral approach, it seems her project aligns closer with texts edited into Paul Bogard's book titled *Solas-talgia: An Anthology of Emotion in a Disappearing World* (2023), in which Mary Annaïse Heglar is quoted:

what I truly feel is love [...] I mean living, breathing, heart-beating love. Wild love. This love is not a noun, she is an active verb. She can shoot stars into the sky. She can spark a movement. She can sustain a revolution. (2023, VII)

3 Death: Specimen and Requiem

It dawned on him that the requiem he was writing for a stranger was his own. (Durant 1967)

Whether directly juxtaposed with taxidermised animal specimens – as was the case at Tūhura Otago Museum – or not, Beevors' work conjures up the spectre of this practice as a kind of evil *doppelgänger* necessary to offset its obverse. She admits: "I'm repulsed by taxidermy, but I use the stuffed versions of animals at various museums as reference material in my own practice" (2020b, 95). In her article titled "The Matter and Meaning of Museum Taxidermy" Rachel Poliquin points out that specimens preserved through taxidermy were hugely popular at the height of British colonialism during the nineteenth century but that they are, more recently "[...] seen by many as a gratuitous spoilage, as death on display" (2008, 123). The author alerts us to the views of Donna Haraway on taxidermy, where she summarises: "Haraway exposes the racist, imperialistic, and masculinist motives underpinning the entire performance [of dioramas exhibiting taxidermy]" (123).

Death lurks for animals, from taxidermy to processes of extraction. Tortoises and turtles have been killed for their carapaces from which various items were fashioned, such as combs, frames for spectacles, guitar picks, and knitting needles. One of the works in *Anatomy Lessons*, ironically titled *Hope Floats* [fig. 2] shows the soft underside, the belly of such a creature. Its elevated position means it can only be 'dead' as live turtles and tortoises swim in water or walk on the ground with their carapace on top to protect their inner bodies. The softness of the underbelly and the flailing skeleton limbs are heart-breaking to see in its utter helpless vulnerability. We see



Figure 2 Michele Beevors, *Hope Floats*. 2014.
Wool and mixed media, 1,600 × 1,200 × 400 mm.
Green Sea turtle, *Chelonia mydas*.
Classification status: Endangered.
Courtesy of artist Michele Beevors
and photographer Adrian Hall



Figure 3 Michele Beevors, *Topsy* (2021).
Wool and mixed media,
3,400 × 3,000 × 1,200 mm. Asian elephant,
Elephas maximus. Classification: Endangered.
Courtesy of artist Michele Beevors
and photographer Adrian Hall

here the obverse, the counterpoint, of a dead specimen which has undergone taxidermy. The artist is showing us death while composing a requiem – an act of remembrance for our hapless victim, a victim which could and have been any of us as human animals. The first words sung in a requiem asks for eternal rest for the deceased. In contrast, taxidermised specimens are supposed to live on as zombies, half-dead and half-alive.

In our time of intersectional ecofeminism with its insistence on the multi-dimensional reach of the feminist project, we are reminded that the fight for women’s rights have long since been entangled with the fight for animal rights. Part Two of Carol Adams’s *Neither Man nor Beast* (2018) is titled “We Are One Lesson” and focuses on the intersection between feminism and ecology. Josephine Donovan discusses the complexities of the relationship between feminism and animal rights in “Animal Rights and Feminist Theory” (1990) and exposes the hypocrisies and complexities where feminism and animals meet in a consumer society, a field well traversed

by Beevors: In one exhibition *Hope Floats* trails an avalanche of domestic products.

Intersectional ecofeminism views feminism through an expanded lens, accepting that many identities or motivations can be in play at the same time. An example is when feminism is conjoined with ecological concerns or when women's rights and the rights of animals are equally important for an artist. One of the proponents of intersectional ecofeminism is Norrie Ross Singer in her article "Toward Intersectional Ecofeminist Communication Studies" (2020) in which she argues that this expanded lens is fast gaining momentum in the field of the environmental humanities.

As an ecofeminist, the artist laments (Fox 2022) the possibility that she might see the final demise of elephants in her lifetime. Another work by her is titled *Topsy* [fig. 3]. An elephant hovers over her dead baby calf. The slow death of the circus animal is also represented here: The large elephant is perched precariously on a Swiss ball balanced on a small set of bedside drawers covered with a domestic doily. Wild animal and its humiliation through domestication and spectacle make this work hard to experience. Again, the work pays homage to a real animal (St. Louis Republic 1903). *Topsy* was the name of an elephant electrocuted, poisoned and hanged on Coney Island, New York, in 1903. She was smuggled into the USA from Asia and forced to perform circus tricks. Due to mishandling by a drunken carer, various accidents occurred, and she was stigmatised as a 'bad' elephant and subsequently killed. The electrocution event was filmed and released to be viewed by the public in coin-operated kinoscopes. Beevors' homage does not show the brutality and horror of the event. However, the hunched-over animal with her perilous foothold under a knitted shroud of funereal blue-purple wool recalls the cruelty of her fate and the casual dismissal of her dignity through an infantilising and demeaning name.

Author: In South Africa, I used to see parts of elephants (mis-)used in domestic settings: feet and lower legs as doorstops, elephant teeth and buffalo horns strung on chains as wall decorations, elephant ears flattened as rugs on a floor. Of course, also zebra skins made into carpets, lion heads mounted as trophies, stuffed birds, severed chimpanzee hands as ashtrays... Recently - in 2023 - I walked into a rural pub on New Zealand's West Coast. The publican had thought it fit to decorate the walls all around with hunting trophies: dead victims of a 'bygone' era. No requiems for these hapless creatures, only humans laughing, eating, drinking below their glassy stares and skins and horns with dust gathered.

4 Grief: Solastalgia and Entanglement

... all critters share a common 'flesh', laterally, semiotically and genealogically... Kin-making is making persons, not necessarily as individuals or as humans. (Haraway 2016, 103)

Beevors made the point (Fox 2022) that animals also grieve, that Topsy grieves over her dead child, shown with her in the work. Mary Midgley writes:

Animals [exhibit] social and emotional complexity of the kind which is expressed by the formation of deep, subtle and lasting relationships. (1985, 60)

Barbara J. King's book titled *How Animals Grieve* explores witness accounts of animal grieving. She concludes:

Grief blooms because [...] animals bond, they care, maybe they even love - because of a heart's certainty that another's presence is as necessary as air. (King 2013, 14)

Horse and Rider: After Stubbs [fig. 4] shows us a very large knitted skeleton of a horse, in some exhibitions shown with a human skeleton - also knitted - placed horizontally on a black cloth on the floor of the gallery next to it. One could read the 'Stubbs' in the sub-title as referring to either or both George Stubbs's: A late eighteenth-early nineteenth century whaler in New Zealand or to the English eighteenth century George Stubbs, a painter of horses, often shown saddled, bridled, mounted against a manicured landscape. In Beevors' version, the horse seems presented as a memory of itself, a white sepulchral spectre or *memento mori* of an erstwhile alive and vital presence. There is grief here too, possibly also a grief for all the many horses who have been subjected to human ends: War, sports, spectacles, and the knacker's yard.

At the time this work was made, Beevors suffered personal loss and grief, of which the human skeleton - brought down, made horizontal - is a testimony. Grief for animals and humans intersect in the work. Both have been 'stripped to the bone' as it were, while simultaneously, their intricate and articulated anatomical structures are revealed and protected by knitted white wool, painstakingly crafted in acts of care and compassion.

Another kind of human grief has recently been called "solastalgia". Bogard writes that the word is made up of the Latin for *solari* (solace), *desolari* (desolation), and *algia* (pain):



Figure 4 Michele Beevors, *Horse and Rider: After Stubbs*. 2011. Wool and mixed media, 2,000 × 2,400 × 2,400 mm. Horse, *Equus caballus*, and Human, *Homo sapiens*. Courtesy of artist Michele Beevors and photographer Adrian Hall

solastalgia, about missing a loved place that still exists but to which the old birds and plants and animals no longer come [...] sadness at the ongoing destruction of the wild world. (Bogard 2023, VII)

Glenn Albrecht expands:

the existential and lived experience of negative environmental change [...] the loons gone from the lakes they have called home for centuries. (XXII)

Kathryn Nuernberger adds:

And if the elephants and giraffes never come? After a while the tree stops feeding the ants, and the ants plunder the rich ichorous sap of the heartwood. (7)

Grief and rage are close experiences. Kathleen Dean Moore rants against corporate greed and refers to Dylan Thomas's poem in her article "Rage, Rage against the Dying" and exhorts us to action: "[...] we must sharpen our sorrow into action. We must burn our grief into rage" (143).

Beevors is not paralysed by grief and rage. With dedication, determination, painstakingly, slowly – at every possible available moment – she makes and knits, and makes and knits, crafting her sculptures to bear witness, to protest, to externalise her grief and rage for us all to participate in. With regard to eco-anxiety, Sarah Jacqueline Ray writes:

Every single moment of our attention is precious, every single way we spend our time matters, and every habit we start adds up over time to the response-ability that these unfolding layered crises will require of us. (143)

In an interview, Donna Haraway urges us to always remain entangled with kin: "I have a cousin, the cousin has me; I have a dog, the dog has me" (Paulson 2019).

Horse and Rider together enact kinship, while also up-ending the humanist hierarchy between humans and animals. Adam Weitzenfeld and Melanie Joy write:

anthropocentrism [...] has narcissistically privileged humans as the center of all significance, the outcome of a distorted humanism [...] opposed to speciesism. Critical Animal Theory (CAT) scholars, including posthumanists and feminists, reevaluate the significance of dependencies, emotions, and the specificity of animal being and agency. (Weitzenfeld, Joy 2014, 3)

The use of the term 'posthuman' in the humanities stretches back to the 1990s with now well-known publications by N. Katherine Hayles and Donna Haraway. There are many different strands to this philosophical stance. What they all have in common is the insistence that human beings are fluid parts of systems and do not function separately from these systems. For the purpose of this article, the post-human relationship between people and animals is predicated on the acceptance that they all share the environment and are interdependent in a non-hierarchical system. Kari Weil writes:

Animal studies bring to light the need for a new posthumanist ethics, one that does not rely on... normative hierarchies... to determine who has moral status, or who is a who, rather than a what. (Weil 2018)

In the artist's composition, *Horse* asserts agency, standing high and proud and large; *Rider* seems to have lost corporeal balance and is placed on an off-centred dark ground reminiscent of a coffin. Both are comforted by their woollen surfaces, and they share their joint demise, but their relational agency has been shifted sideways.

Author: Living in Dunedin, New Zealand, now, for another half of my life, I have learned to understand more about birds. I was gifted an imported Indonesian parrot; she had been hand-reared and in our house was a free-flying bird who often landed on my shoulder and cuddled into my neck for want of her missed flock. We named her Liefje - 'little love' in Dutch - by hook or by crook we had her and she had us, and then she was given away to a somewhat better life with other birds of her kin we found for her in a large companionship aviary.

5 Labour: Materiality and Companionship

materiality is not [only] a question of the materials themselves but rather the substance of material relations. (Bruno 2014, 1)

Beevors talked about her making process in an interview (Fox 2022). Listening, one becomes aware of the patience and time-consuming effort required to achieve the results in *Anatomy Lessons*. Research about animal ethics and the histories of specific species and particular animals is coupled with a personal experience of eco-anxiety. This research is augmented by anatomical enquiry into the physical structure of animal bodies and their surface patterning. Materials are chosen, armatures are built, knitting takes up endless time: Evenings and weekends and holidays when she is not teaching. One is reminded of Henry David Thoreau's now famous dictum about the cost of a thing being the amount of life required to be exchanged for it.

Adeptness in the handling of materials come into play and an understanding of scale and relative size and proportion. It is important to the artist to "make things perfectly" (Fox 2022). She started with some of the smaller works as a kind of warm-up before moving on to the large works. In "Manual Labour", Katve Kaïsa Kontturi writes:

in the arts a warm-up should be conceived of as part of the actual exercise, and not as preceding it: Warming up turns into

training - into 'working out' a work of art. Rehearsal, time, and patience are needed. (Kontturi 2018, 109)

One of the works in *Anatomy Lessons* presents a veritable colony of sixty frogs, each one painstakingly crafted and embraced with white knitted wool. On a recent exhibition, they seemed to swarm across a dark background. Next to them, a small, lonely fish - separated from its shoal - with its fragile, exposed skeleton was carefully articulated against the black. Frogs and fish are now endangered species. The whiteness of these works act as an indicator of their demise, again this seems sepulchral, acting in conjunction as *memento mori* of species alive in a distant time.

Author: When I lived in South Africa, frogs were part of daily life. Big toads scared us as children. Tadpoles swarmed in ponds. Frogs could be seen anywhere where water was to be found. We were often woken up by the sounds of frogs croaking. Sometimes they found their way into swimming pools and had to be dragged out with a net and deposited in other places. Now, I have been in New Zealand - a watery country of lakes and pools and eddies - for thirty years and have never seen a frog. Researching this strange phenomenon, I learn that there are no longer any significant numbers of frogs in the South Island where I live. Archey's Frog, Hamilton's Frog, Hochstetter's Frog, and Maud Island Frog are holding on by a thin thread in the North Island, Great Barrier Island, the Cook Strait, and the Marlborough Sounds. Frogs are social creatures and live in groups called colonies or armies or knots. These have been eaten by predators and decimated by environmental changes. John Muir is famously quoted: "When we try to pick out anything by itself, we find it is hitched to everything else". (Wood n.d., n.p.)

"Part V: Take Action and Take Care" in Bogard's anthology on emotion in a disappearing world is devoted to remedies for the condition of solastalgia. He responds to Aldo Leopold's sense of a lonely experience of the wounds of the world, by suggesting that we can find a source of companionship in sharing distress and taking action (2023, XXV-XXVI). Albrecht writes in the foreword of the anthology using the new word 'symbiotude' or working with others in the face of solastalgia. 'Symbiotude' (from the Greek *symbios* which means living together) is a term used and created by Glenn Albrecht as part of

the tiny (but growing) vocabulary for our emotional connection to the environment... I have sensed, within humanity, a profound sense of emotional isolation. To help overcome the solitude, I have created the idea of symbiotude, thinking and working in companionship with others, to reconnect to life. (2020, n.p.)

6 Conclusion

Beevors is quoted as saying (Fox 2022) she can ‘only’ continue knitting and do her recycling. As an animal-companion she has done much more. *Anatomy Lessons* is a monumental ode in material form to the suffering of a collection of animals.

The artist has also created companionship in other, related ways. Over the two decades during which the works in *Anatomy Lessons* were made, cohorts of students have learnt how to critically confront the crucial issues of our time, not least environmental degradation and the extinction of animals. They have learnt the ‘working out’ of making art and how materials can carry signification. They have learnt to be unafraid of large scale and accepting of the patience of the labour required for making such works. At present, Beevors is continuing her knitting and is well aware of its implications. Stephanie Springgay writes about knitting as

an aesthetic of civic engagement [...] to reconceptualize collective and feminist pedagogy from the perspective of relationality and touch. (2010, 11)

In 2020, Beevors brought a group of artists and scholars together for a symposium titled “Animals at the Edge”, which also led to a special issue of the journal *Scope: Contemporary Research Topics (Art & Design)* with the same title. Topics ranged far and wide to highlight the many, complex problems. As editor of the issue, she wrote:

Most of the articles that appear in this issue were given as papers at the *Animals at The Edge Symposium*. The premise was to highlight some issues around representing animals and to give students a balanced view of the complexity of looking at animals. We asked for papers from local scientists involved with conservation efforts, from lawyers involved in legislation change and other educators in other institutions. To our readers, *we say that we are not done here, because when we don’t represent our most urgent thoughts, art becomes a hollow reflection of capital only, a super commodity about anything and nothing.* (Beevors 2020a, 6; emphasis added)

Absorbed into the careful precision of working with materials in Beevors’ labour intensive *Anatomy Lessons* are the deep rage and sorrow which has sustained her over many years. Long-lasting, eco-political agency through art-making in the face of grief and loss – amidst the ever-growing inroads of capitalism and its catastrophic environmental effects on the lives of animals – is central to her legacy.

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Somatic Arts and Liveable Futures Embodying Ecological Connections

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Abstract Based on the author’s practice-based ecosomatic research, the article explores the role of the somatic arts in challenging the culture of separateness between humans and nature typical of Anthropocentrism. The aim is to enhance the debate on how to grow liveable futures in the face of ecological disaster. The author reflects on the possibility to re-activate our eco-consciousness through embodied practices of interconnectedness with nonhuman living beings and systems. Then he discusses the cultural conditions shaping the growing field of ecosomatic practices and evaluate their political implications as acts of caring, collaboration, and cultural resistance. The importance of awakening the memory of the body and grieving for anthropogenic ecological losses is foregrounded as a key passage towards regeneration. The concept of ‘Planthroposcene’ proposed by Natasha Myers is mobilised as an inspiration for envisioning the emergence of embodied alliances with other forms of life. Throughout the article, the reader is invited to engage with a series of somatic interactive processes offered as a pathway for challenging the widespread apocalyptic perception of ecological crises.

Keywords Ecosomatics. Critical embodied practices. Crisis of perception. Anthropogenic ecological losses. Apocalyptic thinking. More-than-human ecologies. Planthroposcene.

Summary 1 An Introduction to Ecosomatics. – 2 The Dangers of Apocalyptic Thinking. – 3 Awakening the Memory of the Body. – 4 Embodied Ways of Conspiring with the More-than-Human. – 5 Where Do We Go from Here?



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1 An Introduction to Ecosomatics

This is an article on how somatic movement practices, and somatically informed art practices more in general, can help us regain ecological futures by challenging the supremacy of mind over body and the dominance of humans over other species and living systems. The focus is placed on the growing ecological orientation of dance, movement, and other healing, expressive, and community practices based on somatic awareness and attention, and how this international and interdisciplinary trajectory of practice and research offers new resources to change the ways we perceive and value our more-than-human connections. The article is based on the interactive public lecture and the ecosomatic workshop I presented at the “(Re-) gaining Ecological Futures - Ecosomatics” programme at Floating University Berlin in June 2022.¹ The materials of the lecture and of the workshop are deepened and extended by reflecting on the movement-based ecosomatic research and applied artistic and pedagogical practice conducted before and after (Rufo 2022; 2023; 2024; Rufo, Gallo 2024).

I propose an approach to ecological consciousness that interweaves the ways in which we perceive our environment with the ways in which we perceive our bodies within our environment. In this sense, ecological consciousness is not an abstract function of the mind looking from a distance at the world we are destroying, but an incarnated process of encountering what French philosopher Maurice Merleau-Ponty called “the flesh of the world” in his phenomenological investigation of perception (Merleau-Ponty 1968). This is a painful process because to feel the wounds of trees, oceans, the soil, nonhuman animals, the air... we need to accept the grief we have caused to our own species by severing the ancient bond of solidarity with the earth. Let us consider the suggestion by activist eco-oriented scholars like David Abram (2010; 2017; 2018) and Wayne Mellinger (2022) to approach the ecological crisis as a crisis of perception.² We are part of the earth, not separate from it. The larger perceptual field in which human life is corporeally embedded is referred to by Abram as the “more-than-human” world. Abram describes the “more-than-human” as a “living landscape” that can be accessed through the recuperation of “the incarnate, sensorial dimension of experience”

¹ Programme curated by Berit Fisher at Floating University Berlin (23-25 June 2022). Part of the project *Natureculture Pedagogies*, funded by: Spartenoffene Förderung für Festivals und Reihen (zweijährig) der Senatsverwaltung für Kultur und Europa. <https://floating-berlin.org/programmes/re-gaining-ecological-futures/rgef2022>.

² I have discussed more at length the perceptual roots of the ecological crises and the role of ecosomatic art practices as a vehicle for embodying personal and cultural processes of grieving with the rest of nature in the public lecture delivered at the Italian Culture Institute of Bucharest in March 2024 as part of the ROOTS dance residency (Rufo 2024).

(Abram 2017, 65). Trapped in a sort of collective myopia, we tend to focus our attention on human lives and events and on the isolated ‘things’ that surround us. Mellinger (2022) argues that to change our worldview we need to change the way we perceive the world and that to change our perceptions we need to change the way we think about the world. So, where do we start? Critical embodied practices can offer us the gateways needed for experiencing the continuum between human-and-natural worlds by reinhabiting our bodies as ecologies nested within larger (and smaller) more-than-human ecologies.

In the last two decades the somatic arts have become an important reference point for articulating the possibility of working towards liveable futures. They have done so by enabling the circulation and interpenetration of knowledges that for a long time had been indifferent to each other: on the one hand the sensory experience of body and place, and, on the other, ecological and political thinking. It is quite remarkable to see how the work of somatic artists, and particularly of dancers, performers and choreographers is helping philosophers, anthropologists, natural scientists, and other eco-oriented scholars to co-create a field for observing, criticising, and rearticulating the embodied connections with more-than-human phenomena. Some of these processes were documented and critically analysed in two recent collections: the book on ecosomatic thinking edited by Marie Bardet, Joanne Clavel and Isabelle Ginot and published in 2019 for the French-speaking world;³ and the special issue on somatics and eco-consciousness of the *Journal of Dance and Somatic Practices* edited by Thomas Kampe, Jamie McHugh and Katja Munker in 2021.⁴ Ecosomatics emerges from the meeting of two relational paradigms. As discussed by existential philosopher and Feldenkrais practitioner Thomas Hanna in the 1970s and the 1980s, somatics is a term derived from the Greek word *soma* to reengage the human body as an integrated physical, emotional, mental, and spiritual phenomenon observed “from the first-person viewpoint of [one’s] own proprioceptive senses” (Hanna 1986, 4). Ecology is a term derived from the Greek word *oikos*, meaning household, habitat, or dwelling place, and used to indicate the study of how organisms interact with one another and with their environments. The ecological approach encourages humans to take responsibility towards the planet (Bottoms, Franks, Kramer 2012). Ecosomatic practices displace

3 Bardet, Clavel, Ginot 2019. Based on two five-year collective, interdisciplinary and international research projects, the book presents a range of conceptual frameworks and methodologies articulated and contaminated through a series of workshops, conferences and shared projects.

4 Kampe, McHugh, Munker 2021, 4. This special issue on somatics and eco-consciousness includes a wide range of theoretical considerations, reflections on practice-led research, and documentation of artistic practices across different academic and artistic disciplines.

abstract cognition and modern technology from the centre of the world to foreground the role of other forces like gravity and other species like plants in shaping our perception and well-being. With ecosomatics, attention shifts from the body and the environment as separate entities to embodied ecological connections as a perceptual continuum.

Francophone pioneers Bardet, Clavel and Ginot describe ecosomatic practice as “a way to put attention to work” and

take into account the relationships of co-construction and co-invention between gestures and contexts, between perceptions, thoughts and affects. (2019, 15-17; transl. by the Author)

This attentional work is coupled with an ecologically conscious process of positioning, of placing somatic experience in the larger scheme of things. Kampe, McHugh and Munker argue that:

The soma exists in relationship to all life, not as a separate unit of being, yet is culturally shaped and politically rendered. (2021, 4)

With ecosomatics, we start to consider how the actual, in-the-flesh sensory experience of the artist is shaped by atmospheric phenomena and biological processes as well as by cultural and political forces. Moving in this direction, the question that could unravel the potential of this promising field is the following: how can the practical and conceptual meetings between somatic and ecological paradigms help us articulate new ways of growing embodied alliances with the non-human and with matter which defy the global system of extractivism, consumption, and exploitation that is devastating the planet? Natasha Myers' concept of 'Planthropocene' is as an example of how we can envision the emergence of non-anthropocentric collaborations between humans and plants (Myers 2015; 2016; 2018; 2020). I will discuss this example in section five of the article.

But before addressing this key question, I think it is important to take a step backward. It is important to expose the powerful role played by apocalyptic narratives in the ways we come to care for the possibility of eco-futures. In what follow I will ask the reader to connect to the sense of frustration and disempowerment for the terrible wounds that humans are inflicting on the rest of nature. To regain ecological futures, we need first to regain access to the capacity of the human body to have a felt sense of these wounds. To clarify and vivify this delicate passage, I will invite the reader to engage in a guided experience of sensing and moving. I will start from ecological wounds and then open the path of deep breath and skeletal awareness.

2 The Dangers of Apocalyptic Thinking

In a recent speech on “The State of the Planet”, António Guterres, the secretary-general of the United Nations, claimed that “Humanity is waging war on nature”.⁵ We live in the age of ecological disasters. Humanity is facing the end of the world as we know it. For Guterres, the worst disasters show the direct or indirect influence of humans on the environment. Shutting down whole countries for months during the long Coronavirus emergence has not made things better: the pandemic has generated more than 8 million tonnes of extra plastic waste globally (Laville 2021). Just to give an example, Amazon’s plastic packaging waste increased by nearly a fifth between 2020 and 2021 to surpass 300 million kilograms – with this amount of plastic we could circle the world 800 times (Elton 2022).

During the interactive lecture at Floating University on which this article is based, I proposed a list of some of the terrible wounds inflicted by humans on the rest of nature in recent years. Before reading the list, I invited the audience to warm up their proprioceptive senses. I would like to ask the reader to do the same [fig. 1].



Figure 1 An image of the audience of the public lecture given by the author at Floating University Berlin in June 2022. The audience is engaging with the somatic interactive process of listening to a list of anthropogenic ecological disasters. Photo by Lorène Blanche Goesele

5 Message by António Guterres, Address at Columbia University, 2 December 2020. <https://tinyurl.com/ywfvjss5>.

If you are sitting, as I imagine you are, start by noticing the workings of your sitting bones. Where are they? Now I invite you to shift weight across your feet, pushing just a bit forward and then backward. Keep both feet under the knees. Bring the feet just a bit closer to the seat than the knees are. This is a way to create a nice movement dynamic between feet, knees, and pelvis. And while you do so, allow your pelvis to fold in and out, doing little rotations, like a wheel. I would like the reader to observe how there is never an end to movement even when we are sitting. In subtle and very small ways we are always moving, even when we are still. Somatic practices are gateways for becoming aware of the internal involuntary dynamics of movement. While you are reading the following list of anthropogenic ecological disasters out loud, I ask you to attend to how your breath changes, how the feeling of your chest changes. Notice any contraction in your muscles and in your bones. Don't think about doing this. Just notice while hearing your voice. Observe where the centre of your attention moves: towards your head? Your belly? Your feet? Try to stay with your body while your mind is trying to take over. After reading the list out loud, I invite you to close the eyes and notice the responses of your body.

First Somatic Interactive Process: Sensing Apocalyptic News

Deserts spreading
Wetlands lost
Biosphere shrinking

Oceans overfished and choked with plastic
Dying coral reefs
One million species at risk of extinction
Floods, hurricanes, and powerful storms scarring the globe
Devastating oil spills in sensitive areas of the oceans
Air pollution killing nine million people a year
Deadly wildfires consuming millions of acres of land.
Failing dams flooding entire towns
Half the world living with severe water scarcity

In 2020, Cyclone Amphan hit the Sundarbans region between India and Bangladesh displacing 5 million people
Last year the Amazonian rainforest lost an area nearly seven times bigger than greater London and thirteen times the size of New York City

Over the past 30 years, the oldest and thickest ice in the Arctic Sea has declined by 95%.⁶

These are the kinds of apocalyptic news on the future of the planet we are faced with every day. How did you feel about it? How did your body feel about it? I invite the reader to write some notes on what was noticed through the internal sense of the body. Please use a simple language and simply describe what happened (or didn't happen) without judgement.

We can think of information on ecological disasters as a call to action. However, apocalyptic thinking is dangerous. It is dangerous because it reinforces the paradigm of nature as something separate from us upon which we are acting. Going back to Guterres and his speech as secretary general of the United Nations, apocalyptic thinking assumes that humans act without considering the negative consequences of their actions and that, consequently, "Nature always strikes back ... with growing force and fury" (Guterres 2020). But weren't we connected with nature before having to face the consequences of our actions against nature? Aren't we part of nature? And is the agentic force of nature limited to revenge against us? It is hard to change our modes of perceiving the world, as it is hard to change the ways we think and act upon the world. Can we just expect, following Guterres' line of thinking, that, since "Human activities are at the root of our descent toward chaos... human action can help to solve it" (2020)?

The environmental humanities have deepened our understanding of the ethical and political importance of bringing ecological crises to the foreground of the cultural debate. However, as claimed by Owain Jones, Kate Rigby and Linda Williams (2020) in their critical discussion of the geographies of extinction, our capacity to respond to ecological crises depends on the way we frame their discourse. We need to be careful in weaving narratives which integrate the urgency of the problems faced by communities around the world with a sense of hope. This, in turn, involves recognising our inability to mourn for anthropogenic

⁶ Sources: United Nations. <https://indonesia.un.org/en/107181-message-antonio-guterres-address-columbia-university-state-planet>; Harvey, F. (2020). "Humanity is Waging War on Nature, Says Un Secretary General". *The Guardian*, 2 December. <https://www.theguardian.com/environment/2020/dec/02/humanity-is-waging-war-on-nature-says-un-secretary-general-antonio-guterres>; O'Sullivan, F. (2022). "The World's Fastest-Growing Cities Are Facing the Most Climate Risk". *Bloomberg*, 28 February. <https://www.bloomberg.com/news/articles/2022-02-28/global-south-cities-face-dire-climate-impacts-un-report>; World Meteorological Organization (2021). *State of the Climate in Asia*, 26 October. <https://public.wmo.int/en/media/press-release/weather-and-climate-extremes-asia-killed-thousands-displaced-millions-and-cost>; Hancock, L. (s.d.). "Six Ways Loss of Arctic Ice Impacts Everyone". *World Wildlife Fund*. <https://www.worldwildlife.org/pages/six-ways-loss-of-arctic-ice-impacts-everyone#:~:text=We%20lose%20Arctic%20sea%20ice,in%20the%20summer%20by%202040>.

ecological losses (Jones, Rigby, Williams 2020). There is not just an individual psychological resistance to change. Our ecological connections have been impoverished by centuries of sensory deprivation and cultural alienation from the livingness of the earth. Thinking and feeling with David Abram, ecological crises can be traced back to a fundamental lack of perceptiveness towards nonhuman living beings and systems. Borrowing Abram's words, the challenge of our time involves "turning our animal senses to the sensible terrain" to become "a creature of earth" (Abram 2010, 3). Where do we start? Let us begin by recognizing the "horrific wounds" that fill "the sensorial world of our carnal experience" (Abram 2018). Yet if the pain from these wounds is "unbearable", as Abram claims, how do we avoid retreating "*from the body's world to avoid the sensuous terrain with its droughts and its floods and its flaring wildfires*" (emphasis in the original)? How do we find an alternative to "*taking refuge in ever more mediated and virtual spaces*" (Abram 2018; emphasis in the original)?

3 **Awakening the Memory of the Body**

The somatic arts can help us find a way out of apocalyptic futures by offering a balanced approach to repairing the damage we have caused to the connective tissues of life. We need to restore the reciprocity between body and mind and between body and earth. Where do we start? Regardless of how complex the problems are, I suggest we always start from our direct sensory experience of the body. In describing the philosophy of Deep Ecology, Arne Næss talks about the intrinsic value and inherent meaningfulness of all forms of life and about the possibility of breaking the chains of abstract thinking that separates the human individual from the rest of nature by listening to the silent presence of the world in which we are immersed through the senses (Næss 2008, esp. 61). Moshe Feldenkrais, one of the pioneers of modern somatics, makes a methodological point that is quite important for building the eco-soma alliance. We know the reality of the world through our senses. One would expect most of our nerve cells to be directed towards the outside world to manipulate, analyse, and integrate this information. However, only one nerve cell per thousand informs us about the external environment. Our sensorium is much more directed towards the reality we experience on the inside than we would expect (Feldenkrais 1981, esp. 87-8). We need to rediscover our relationship with the external world based on the awareness that we receive so much sensory information from our internal systems, our organs, our fluids, our breath, our muscles, and our bones. According to Feldenkrais, this involves "reducing all stimuli to their bare minimum" to facilitate noticing and integrating the finer changes in the muscular and nervous systems (Feldenkrais 1975, 2).

But there is more to this. My experience as a dance artist and as a scholar of perception has led me to think that, in the somatic experience of sensing we are not only reconnecting with our interiority and our place in the world in this present moment. Somatic sensing is a gateway to reconnect with our genetic, biological inheritance as members of a family, of a tribe, of a nation. Not only that, the sensing of what happens here and now is grounded in millions of years of evolution of the human species to which we all belong. Indeed, following recent scientific discovery, I should say that human sensing is grounded in millions of years of co-evolution with other species of life and living systems.⁷ If we want to promote the emergence of life-affirming modes of relating with each other and with the more-than-human, we need to awaken the memory of the body. By recognising what we have forgotten we can create an opportunity to sense new possibilities for the future which are not totally defined by anthropocentrism and by the capitalist and colonialist systems of extractivism, consumption, and exploitation in which we live.

Second Somatic Interactive Process: Grounding

The sensory reappropriation of our evolutionary right to be part of nature can start right here, right now. I would like to ask the reader to join in a second sensory experiment. This proposed somatic interactive process is inspired by the 'Ecokinetics' workshop I conducted during the "(Re-)Gaining Ecological Futures" programme at Floating University Berlin [fig. 2].

This time I ask you to stand up in front of your chair. To awaken the memory of the body we need first to reconnect with breath and with the ground. We start with bringing our attention to the flow of breath moving in and moving out. Now notice how the ground is supporting your body weight in the face of gravity. Weight moves into the ground and off the ground, like a wave, like breathing. Now focus on your feet and your legs. When breathing in, feel the pressure of your body weight being poured into the ground. Then release that pressure by breathing out at that point of contact between the feet and the ground. Play with shifting weight from one foot and one leg to the other foot and the other leg. Notice how the legs support your bipedal experience of the body, one at a time. The other leg observes what is going on.

7 For a somatic evolutionary approach to the study of the body systems and the inherent neurological developmental patterns that underlie human movement, see the pioneering work of Bonnie Bainbridge Cohen (Bainbridge Cohen 2012).



Figure 2 An image from the workshop *Ecokinetics: Embodying Reciprocity with Plants* conducted by the author at Floating University Berlin during the “(Re-)engaging Ecological Futures” programme in June 2022. Photo by Lorène Blanche Goesele

Third Somatic Interactive Process: Becoming a Witness

Now we are ready to connect internal sensations with the perception of the world around us at a more conscious level [fig. 3].

Look around you as you keep shifting weight from one leg to the other, very gently. If you are not outdoor and if you can, move towards a window so you can directly access the presence of the outside world. Let the vibrations of light touch your eyes. The eyes are soft. They are not trying to grasp what you see. You are allowing what's there to address your senses. Look at all the plants and trees around you, if there are any – otherwise, look at the other human and nonhuman elements composing the outside world. Feel their presence with your body, in your body. To awaken the bodily memories of being a creature of the earth, we need to become witnesses of the sensuous presence of the nonhuman life that embeds us and that makes our survival possible. You can close your eyes again for a moment as you breathe this more-than-human life in.⁸

8 I have explored the experience of becoming a witness of the bodily earthly ground in which human life is entangled in the ecosomatic research project *Sensing with Trees*. The internal adventures of movement involved in this research was articulated in a somatic storytelling which functions both as an account of what happened and as a guide for readers to engage sensorially with the presence of trees (see Rufo 2023). For an



Figure 3 An image from the workshop *Ecokinetics: Embodying Reciprocity with Plants* conducted by the author at Floating University Berlin during the “(Re-)engaging Ecological Futures” programme. Photo by Lorène Blanche Goesele (2022)

Fourth Somatic Interactive Process: Childhood Memories

I will conclude the experiential part of this article with an imaginative task I have borrowed from Maya Ward (2022), a creative writer who lives in Melbourne (Australia) and teaches courses on how to “write wildness”.⁹ I invite the reader to stay with the embodied ecological connections that might have emerged so far for by engaging with the proposed somatic experiences. Keep standing. You can face in any direction you want. You can close your eyes or allow the vibrations of light to touch your retina. I ask you to imagine a place of your childhood where you could go to play in nature and with nature. Can you remember the sensations of those playful moments as a child? Imagine with your senses. Let these memories flow in your body.

What places did you travel to? What sensations and images did you bring back to this present moment? I invite you to write down some notes. Try to stay close to the direct sensory encounter with these memories you have experienced. I want to share the text that I wrote during my first engagement with this exercise in spontaneous writing:

in-depth discussion of the relation of reciprocity between witnessing and being witnessed by the presence of the rest of nature, see Rufo 2022.

⁹ See <https://www.mayaward.com.au/> for information on Maya Ward’s approaches and activities for “coming home to the alive world”.

These little feet running around. These little hands picking figs from the tree. These little children playing at throwing figs at the cars. Little hands touching bark. Little feet running without plans. Summertime. School holidays. An urban child meets his peasants' roots. My ancestors worked this land and walked these fields for generations. Their sweat still lives here. The light of the sky turns brighter. The texture of the soil gets richer. My fellow wheat, the yellow spark of your leaves begins to speak in this empty space.¹⁰

Now I invite you to tell your story of body, place, and playfulness from the perspective of the more-than-human natural elements you have been playing with. What would water, the sea, the soil, the tree, the island, the mountain, the rocks... say about you being there, about the encounter with that child?

4 Embodied Ways of Conspiring with the More-than-Human

We are back to the key question addressed by this article: In an anthropocentric world threatened by ecological catastrophe, how can the somatic arts help us find a sense of belonging and support the development of collaborative and regenerative forms of research, expression, and activism? My movement-based ecosomatic research and applied artistic and pedagogical practice foregrounds the importance of building intimacy with the rest of nature through tactile embodied experience. This is combined with the need to articulate pathways for supporting the eco-cultural regeneration of the land and the community on which our individual sustenance and wellbeing rely. Ecosomatic connectedness can be described as an emergent way of dwelling in the porous spaces between the inside and the outside that challenges our anthropocentric perceptions. This is a practice that involves attuning with the rhythms and patterns of nature (inside-out trajectory) while paying attention and bringing awareness to how the (outside-in) direct embodied encounter with the nonhuman and matter can affect our bodily experience of self and other (Rufo 2024; Rufo, Gallo 2024). In this sense, the question of growing liveable futures can be offered to somatic artists - dancers, theatre and performance practitioners, therapists, educators, facilitators, etc. - as a call to position their individual practices, worldviews, and internal adventures of interconnectedness from the perspective of the ecological threats they are confronted with and the cultural resources they can learn to mobilize (and vice versa).

¹⁰ Memories written by the author during the *Writing Wildness* online workshop conducted by Maya Ward (2022) in February-March 2022. See <https://www.mayaward.com.au/> for more information on Ward's writing workshops.

Growing arts-based embodied alliances with the more-than-human involves developing a capacity of listening and mediating through praxis that stretches spatially and temporally the transformative power of the singular pedagogical and performative event. It is through this encounter of the inner and outer trajectories of being-with that we can try to overcome the sense of frustration and disempowerment for ecological losses and start repairing the connective tissues of life.

I want to reflect on this proposition by drawing on the vision for regaining ecological futures proposed by Natasha Myers. Myers, a cultural anthropologist with a background in biology and dance, claims that we can and should build liveable futures by searching for ways of knowing and living in a close and collaborative relationship with plants (Myers 2015; 2016; 2018; 2020). While inviting us to approach the co-creation of liveable worlds by “staging solidarities with the plants” (Myers 2020; see also Myers 2018), Myers uses the image of ‘conspiring’ to express the specific interdependence between humans and plants. Conspiring is intended by Myers both literally and metaphorically as a way of “breathing together” (Myers 2018). Breathing with plants implies recognizing their ancient and fundamental function of making human life possible on this planet. Contrary to humans and other animals, plants can produce their sustenance by photosynthesizing water, carbon dioxide, and sunlight into oxygen and sugar. Indeed, plants are the paradigm of radical relationality. Their existence is already a co-existence with humans and other animals from whom they get oxygen and sustain their autotrophic being (Myers 2016). Myers (2020) argues that we have been blinded by the paradigm of human exceptionalism and colonial common sense to see plants as “extractable resources we can bend to our will”. On the other hand, as organisms that have evolved “in a responsive relation with other plants, animals, insects, microbes, and fungi”, plants might have a deeper awareness of and care for their surrounding world than we will ever have (Myers 2020). As an alternative to the Anthropocene, which sets forth an epoch of linear progress led by the *Anthropos* as a singular agent, Myers envisions the emergence of the ‘*Planthroposcene*’, an assemblage of “scenes or epistemes”, both ancient and modern, in which plants and people figure out how to breathe together as a collective formation – the ‘*Planthropos*’ (Myers 2020; see also Myers 2016; 2018).

What role could the somatic arts play in finding ways for conspiring with plants – and with more-than-human living beings and systems more in general, then? To support the aspirations of ecological futures, we need to inquire into our anthropomorphic tendency to relate to plants by making them more like us. Otherwise, following the lines of Myers’ eco-criticism, we will keep reinforcing the boundary between human and nonhuman. Plants sense the world in ways that are very different from how we humans have configured the experience of sense perception for ourselves. We are called to find ways of

letting go of the drive to assert the superiority of human cognitive capacities and impose human needs and values as the measure of everything (Myers 2015). The somatic arts can help us move in this direction by reclaiming the human propensity for engagement with every aspect of the perceptual world as sensible and sentient. They can provide us with fresh perspectives and practical frameworks for learning how to engage with plants as a measure of human knowledge and experience, that is, to feel more like them. Myers sees this as a process of ‘vegetalizing’ the senses. This process requires getting ‘entangled’ both kinesthetically and affectively in the behaviours, rhythms, and temporalities of plants to deepen our perceptiveness and sensibility towards them (Myers 2018; 2020).

We can envision the emergence of what Myers calls the ‘Planthroposcene’ as a process of exploring and embracing the reciprocity of perception between humans and plants. During the movement-based ecosomatic research project *Sensing with Trees* (2020-22), I engaged the encounter with trees in urban parks and forests as a slow improvisational dance of listening and attunement through which the human sensorium is imbued with arboreal attention and trees are recognized and honoured as intimate companions of movement and becoming (Rufo 2022). What began as a series of improvisational movement tasks evolved into a repertoire of rituals of belonging and thanksgiving to the body and the earth.¹¹ To sense with trees, we need to accept the frustrations of waiting and suspending judgement. Something unexpected and unintended is invited to address our conscious awareness whilst remaining outside our grasp. We are also called to confront the repressive and exploitative histories of the human relationship with trees. This requires placing oneself in a painful and yet beautiful position of vulnerability. In these in-between spaces, between touching and being touched and between witnessing and being witnessed, the soma is reached sensorially by ecological wounds and somatic experience is reclaimed as a healing force:

You are lying on your back under the crown of this tree, resting, with the eyes closed. What do you see when you look up? The tree is watching you, isn’t it? You can yield your weight and your thoughts into the ground. You are in good hands. Listen to your breath: can you hear the earth breathing? Observe the points of contact between body and earth. Some parts of the body are touching the

11 Among these somatic improvisational modes of experiencing body and earth, wandering, lying, grounding, and shaping were the ones through which I gained the deepest insights into the reciprocity of perception between humans and trees. The internal adventure of movement involved in this research was articulated in a somatic storytelling which functions both as an account of what happened and as a guide for readers to engage sensorially with the presence of trees (see Rufo 2023).

earth directly; others are not. Where do you sense your heart beating? Is it the chest? The belly? The hands? The arms? The legs? Then bend the knees and soften the pelvis into the earth. Play little games of pressure with the feet. Notice the smallest impulses in your inner landscape. Just stay where you are. Stay vulnerable. This is a process of waiting. (Rufo 2023, 95)

When last year I was scouting the Ostia territory of the Natural Reserve of the Roman Coast (Central Italy) in search of inspiring sites for conducting “*La Selva* International Ecosomatic and Regenerative Arts Residency”, I was struck by a particular place where the traces of the great fire that in 2000 burnt nearly 300 hectares of preserved forest are still very tangible.¹² In this clearing I was faced with a spontaneous scenography of the tragedy and touched by an ancient sense of solidarity with the dead trees. Indeed, this sense of solidarity was only deepened through the experience of being immersed in a dynamic space between life and death: where the pine trees lived (planted by humans as monoculture for commercial purposes), now the plants of the Mediterranean scrub (the *macchia*) are thriving again. As co-facilitator of the group of artists in residence, I proposed a somatic-improvisational movement practice of sensing and grieving with the dead trees and with the land. After an initial phase of wandering the field in a process of synesthetic listening, I invited the participants to engage with an intimate experience of lying on the fallen trunks and shaping into their dead bodies. I asked the participants to work on the sensation and embodied image of being touched by the trees, by the air, by the light and by the voice of the birds both kinesthetically and affectively. The invitation to shape human bodies into the trunks was offered as a way of acknowledging and coming to terms with how humans shaped the land anthropomorphically and exploitatively and how this played a key role in creating the conditions for the fire that burnt those trees.¹³

During the months that followed the *La Selva* residency I became more acutely aware of the presence of tens of thousands of dead pine trees killed by parasites in just a few years but still standing on their feet, scattered across the urban territory of Ostia with their grey crowns deprived of leaves. Soon after the residency, the municipality of Rome decided to start cutting down the dead trees for safety

12 The residency took place between 5-8 October 2023 and was coordinated by Raffaele Rufo and Thomas Kampe and organised in collaboration with Inter-cultural Roots’ (UK), Teatro del Lido di Ostia (Rome) and the Archeological Park of Ostia Antica (Rome). For more details, see <https://www.raffaelelufo.com/ecosomatics/2023-la-selva-human-nature-connect-residency-rome>.

13 For an in-depth account and reflection on the experience of the *La Selva* residency as a gateway to a process of grieving and regeneration, see Rufo, Gallo 2024.

reasons. I was left to witness their felling and eradication on my own, powerless. It felt like a betrayal. Humans planted these pines here, one next to the other, for their own interests; then humans cut these trees down, always for their own interest. I began to reflect on the kind of eco-cultural regeneration that could ensue by honouring the death of these trees in a collective ritual of mourning positioned between the performative and civic intervention. I spent months collecting what was left on the margins of the streets after the intervention of chain-saws, bulldozers, and drilling rigs: broken branches, decomposing and very fragile shields of bark perforated by insects, and fragments of the marrow shattered at the base of the trees and once connected with the roots. These vibrant materials became a key inspiration for developing “Listening with the Planet”, an ecosomatic immersion and intervention with a group of local artists.¹⁴ With the aim to create the conditions for intimacy and trust, the event took place in the more contained outdoor space of an old farmhouse. I placed the remains of the dead pines gathered from across the natural reserve around the lying blocks of the trunk of a tree that had just been felled. I composed the scene of the funeral of the tree before the arrival of participants: the shields of bark stacked a bit away from the trunk, the fragments of marrow wood on the soil to form a circle around the stump, a bucket of water on top of the stump, a big tray with small bits of charcoal near the water, and the broken branches on the other side of the main lying trunk. Before inviting the participants to enter the scene one by one, and engage the elements positioned there to build the ritual, we shared the story of the dying forest. Soon after that I witnessed quite clearly what I referred to above as the meeting between the inside-out and outside-in trajectories of ecosomatic connectedness. The focus went on the large pieces of bark and one participant asked to be buried under them. The group responded with incredible care and intensity. The funeral for the tree transformed quite spontaneously and rather quickly into a death ritual where it was hard to tell whether we humans were grieving for the death of trees or whether trees (what was left of them, their dead ‘flesh’) were grieving for the human condition (see Rufo, Gallo 2024 for an in-depth discussion of this experiment).

5 Where Do We Go from Here?

I want to reiterate the basic proposition this article began with: if we want to reach out towards more liveable futures, we need to start by engaging our failure to grieve individually and collectively for the

¹⁴ See <https://www.raffaelerufo.com/ecosomatics/masterclass>.

pain caused by anthropogenic ecological disasters. In an article published in *The Guardian*, journalist Jo Confino (2014) reflects on our unresponsiveness to the fact that half of the nonhuman creatures across land, rivers and the seas have been decimated in the past 40 years. He asks: “Why aren’t we on the floor doubled up in pain at our capacity for industrial scale genocide of the world’s species?” (Confino 2014) I concur with Confino when he contends that more scientific data or superficial behavioural change initiatives will not be enough to reappropriate the process of ecological grieving and create the narratives needed to transition into a more sustainable political-economic system. People need to be engaged at a deeper level psychologically, emotionally, and spiritually. How can the somatic arts help us repair the more-than-human connective tissues of life (and death) torn by the global exploitative histories of colonialism, capitalism, and consumerist culture?

In this article I have suggested that, as earth-body practices, the somatic arts can offer the pathways needed to start making space for sensations, words and modes of responsiveness and relationality that can nurture a deeper engagement with ecological crises. This involves shifting the focus from cognitive-linguistic processes and objectives to the tactile, kinaesthetic, and affective aspects of the human-nonhuman-more-than-human encounter. Let us begin by quietly observing and attending to the sensuous presence of the surrounding world and noticing through breath, through touch, through movement and the other proprioceptive senses what happens within us as a response to what we are constantly receiving from the world. Let us challenge the comfort zone of our urban body: a clean, safe, and detached body. We can lie and roll on the soil, the grass or in the piles of leaves fallen from trees, dry or wet. We can come into deep contact with the bark of the trees, soft or rough. We can touch the gelid water of the river with our bare hands and feet. All these things are simply a given for people living a rural life. However, it is important for the people of the city to be out in nature every day, to step over the line of abstract thinking and meet the earth halfway with an open attitude of playfulness and investigation. Be it with a warm sun and a clear sky or on a cloudy, windy, rainy, or freezing day, it is important that we address the carnal presence of what, in our culture, is simply reduced to the absence of human qualities. Let us also embrace the possibility of naming the internal adventure of our senses as it unfolds, without the urge to judge or explain. We might surprisingly feel addressed by the moving presences and the bodily voices of what we have always considered to be non-sentient or nothing else than inert matter.

I want to conclude this article with a practical task for the reader. I invite you to engage with the healing power of “wandering in

movement”.¹⁵ I believe this can be a useful starting point for embodying ecological connections. Wandering in movement is a task that I engaged in every day for several months when I moved from the periphery of Milan to the abovementioned nature reserve on the coast of Rome and that I try to engage in every time I travel to a new city or rural area. I invite the reader to approach this somatic experience as an embodied form of mapping the perceptual field beyond the familiar, the well-known, the safe boundaries of existence. Have you ever considered how your sensory perception changes when you cross the door of your home or your workplace and step into the outside world? Next time you cross that threshold, I invite you to let go of any specific destination. Let go of any set of directions you usually rely on. Give your body a chance to be a key player in this experience. Use your feet or a bicycle. There is no need to go too far from where you are. Once you are out, in the public realm, before you decide where to go, wait to be moved by the impulses you receive from the living beings and systems around you. Let yourself be touched by what happens in that very moment. It can be the reflection of light blinding your eyes or the appearance of shadows on the ground. It can be the color of the sky, a hole in the street, the chatter of people, the noises from a building site, the engine of a car, the singing of birds, or the sound of your breath. Once you are out, I invite you to wander until you feel you have reached a place that calls you to meet anthropogenic ecological losses, in any form they may appear, in an intimate exchange. Find a place where you can return, every day, or a few times a week or at least every week for an extended period. Give yourself the time to get lost, to go back to where you came from, to try another way. You cannot know in advance what will move you, but you can refrain from automatically behaving the way you always do. Waiting to be moved might feel awkward, especially when you realize other people might be looking at you. I invite you to meet this awkwardness as a chance to honour the somatic intelligence of the body.

Where do we go from here? Wandering in movement teaches us that we can embody ecological connections by accepting the possibility of falling into thinking and acting without a preordained plan - in the subtle and delicate spaces between presence and absence, doing and not-doing. We don't have to know in advance the direction and the purpose of changing our lives and the world. We don't have to name in advance where we are going if we keep listening in the spaces between our internal impulses and the sensory information we receive from the world. We need to learn how to wait to allow something more-than-human to happen. Foregrounding the ecosomatic arts as

15 For more extended guidance on the somatic experience of wandering in movement, see Rufo 2023.

a possible gateway to embody ecological connections might lead to an important doubt: how can an intimate, slow, first-person approach to ecological and ecosocial change tailored to individuals and small groups be combined with a political approach? When we think of the political, we tend to imagine a phenomenon based on power which involves large numbers of people and a strong organizational and often institutional aspect. Let us avoid falling back into the culturally sanctioned dualisms between action and contemplation, body and mind, inner and outer. Let us engage the ecosomatic to reimagine the political. What happens if we attend to collaboration, shared vision, and collective care as an embodied encounter with the more-than-human world? We need to come together and practice. Only by practicing and developing awareness through embodied practice will we have a chance to find a way out of Anthropocene.

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“Winterreise”. Sci-Arts Winter Season Journey Through the Human-Nature Relationships of the Land-Sea Continuum, from North Sea to Baltic Sea

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Abstract Crossing art and science, this text explores topographically the category of Land-Sea, both in the field, during collection phases, and from a more analytical point of view. To this end, it draws on collective surveys carried out between the North Sea and the Baltic Sea, focusing in particular on the question of the winter season. This article thus engages in a methodological and analytical dialogue between different complementary approaches, with the aim of deciphering, in depth, territorial socio-ecosystemic complexities, between mutations and perpetuations.

Keywords Land/Sea. Social-Ecological systems. Nature/culture. Europe. Sci-arts. Winter season.

Summary 1 Coastal Socio-Ecosystem Topographic Journey. – 2 Synchronic Alliances Between Humans and Birds. – 3 Nourishing Nature: The Eternal Restart of the Cut and the Regrowth. – 4 The Nomadism of Non-Human Societies: Birds and Fish Establish Their Camps. – 5 Translation of a Changing Coastal Boreal Social-Ecological System.



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1 Coastal Socio-Ecosystem Topographic Journey

During a geo-ethnographic field mission, a geo-anthropologist and a painter worked together on a sensitive collection of field materials. The field survey was devoted to the environmental, socio-economic, and political changes that have affected the rural coastal territories from Germany to Estonia since 1990, from North Sea to Baltic Sea. It took place during several winter seasons, until the arrival of springs. This common ground, carried out as a multidisciplinary collective survey, made it possible to question the collection methods, but also and above all the methods of reporting the observations made in situ. This resulted in a fertile cross between arts and sciences, of which this artwork is only an extract.

It made it possible to observe many interactions between the coastal communities concerned by our field survey and their daily local environments, and in the first place, certain non-human living beings. Far from being a ‘slow’ season, with ‘suspended’ work, winter is, on the contrary, widely used by these communities to prepare for the activities of the milder seasons. The result is a multitude of interactions, very discreet, between the Humans and the non-Humans who surround them during these short and cold days. Another striking fact: the ritual character of many of the uses observed and questioned during this fieldwork. The repeated nature of the practices, year after year, and the inherent expectation of the winter season each fall constitute an important pillar of identity. The synchronic nature of the relationships is striking, but also their diachronic aspect, symbolized by a multi-secular repetition, translation of a certain historicity of the practices, and of a relatively old socio-genesis (long-term social-ecological system).

2 Synchronic Alliances Between Humans and Birds

Winter corresponds to the arrival, in these regions, of cranes (*Grus grus*), which take advantage of the bare fields of the season of non-vegetation to stop in these plowed spaces. They use the food present in the soil. The pairs of cranes are then observable, and their cries recognizable for leagues around, benefiting some ornithologists.

A second, more local alliance can be established: that of the bird baggage camps. These regions of northern European coasts, well placed in the main migration axes of the Western Palearctic bioregion, are indeed full of migrating birds during this season. These birds have left to reach more lenient regions for the heart of winter. It is then a third alliance, more unbalanced, can be observed: that of hunting migratory birds. Local hunters take full advantage of cultivated open fields to establish themselves, via raised huts, on the edge of these

agricultural areas, to target passing birds. Some of these birds are also the subject of particularly entrenched gastronomic practices, especially during the end-of-year celebrations, like waterfowl.



Figure 1 Grues dans les champs
© S.Allais-Danto

The use of Indian ink here constitutes a sharp reminder of the colorimetry of the plumage of the cranes, which sometimes stand out little from the landscape in which they evolve. The Indian ink is manipulated with a brush, on a system of layers on Canson paper. The tracings here evoke the furtive passage of the cranes, during their migratory cycle, and before their disappearance, as sudden as their arrival, when they set off again in the direction of Iberia or Mediterranean Sea.

Representing the flights of wild geese, which sail in a 'V' in the sky, from dawn to dusk, here required the use of a double system of ink on tracing paper, but also of watercolor. Geese indeed migrate, just like cranes, on a not relatively short time even if certain groups have contemporary tendencies to the sedentarization by mutations of agrarian practices. Geese have the ability to locate themselves from space, but also to use the winds to move around. They are also very sensitive to weather variations, which they perceive upstream. They thus navigate in a world where water can appear in all its forms, and are permanently exposed to the worlds of fluids during their flights.



Figure 2 Le passage des oies
© S.Allais-Danto

3 Nourishing Nature: The Eternal Restart of the Cut and the Regrowth

The repetition of seasonality was also very striking in the more ‘bucolic’ works of the local communities. The Virgilian aspect of hibernation appears clearly in rural landscapes, when we have been able to observe the cutting of the reed, but also that of the young birches.

The reeds are cut in the reedbeds of the Wadden or the famous outlying Bodden of the Baltic Lake hilltops until Saaremaa wetlands. They are cut at the start of winter, when their post-summer growth stops, and before the first frosts (frost makes them brittle). They are then gathered in bundles, and left to dry for the winter near the farms. They serve as bedding, thatch roofing and even animal feed.

The reeds represent the vegetal element of the Land-Sea par excellence, since they develop in loose, sandy, muddy, sandy-muddy, even peat soils. They also support maritime bad weather and fluctuations in salinity. The artist chose to draw them in Indian ink, with the permanent reflection that can be seen in all reedbeds in the region. The image can be reversed to a full mirror. The precise limit between Land and Sea, impossible to determine with precision, is the subject of a voluntary ‘blank’, for lack of being able to freeze it with a brush and ink without flaring the line.

The young birches, a tree with multiplier power, but also regenerating with its sap, are cut by the fishermen of the Wadden Sea to mark out their tidal channels across the Watt. The Watt is this largest mudflat in Europe, an incredible nursery area for migrating birds and fish. They are cut during the winter, leafless and planted by boat in the mudflat, where they serve as ephemeral beacons for a few years.

Drawn with fine pencil, a system of tracing papers is employed to symbolize the wintry mists of the Wadden on windless days, when only fog horns and the cries of birds warn from the shore. Visually, the fishermen navigate or advance in dog sleds on the mudflat thanks to these birch helpers, real landmarks, which you have to know how to see piercing through the layers of fog, one after the other, tracing the berm of the tidal channels.

4 The Nomadism of Non-Human Societies: Birds and Fish Establish Their Camps

Although human communities have become sedentary for a long time, they nevertheless benefit from the advantages of the societal nomadism of non-human species such as water and sea birds (see above), and migratory fish species in particular.

Within the retrolittoral lagoons of the former Prussia, called Bodden in Low German from Pomerania Citerior, the fishermen take

advantage of the winter to carve their chestnut stakes. These stakes will serve them, in the spring, to stretch out their worm-nets, with wings, within brackish waters, between two waters (in a double dimensional sense: horizontally, from upstream to downstream, from fresh to salty, but also altitudinally speaking, from the bottom of the water to its surface). Chestnut is a wood reputed to be rot-proof, and allows fishermen to use the particular plant properties of this ligneous wood to increase the durability of their fishing gear. The taut fyke nets notably target one of the most emblematic migratory fish of the Baltic: the European eel (*Anguilla anguilla*), critically endangered according to the IUCN.

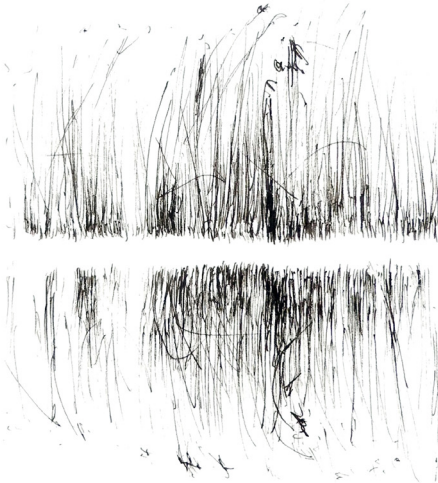


Figure 3 Roseaux en attente de faucardage
© S.Allais-Danto



Figure 4 Bouleaux immergés dans le Watt
© S.Allais-Danto

Winter previously allowed fishing under the ice, but now, for lack of winter pack ice (either it does not appear, or it is too thin), fishermen must adapt. It is this almost image of the past that the black and white of the drawing seeks to expose. The reflection, permanent in the lagoons, is represented by this play of mirrors. The eel, finally, shows through in the lines. The eel has the gift of contorting itself in many different shapes, and of drawing lines, with its body, from the Sargasso Sea to the upstream of the watersheds, passing through the



Figure 5 Pieux de châtaigner pour pêcher
© S.Allais-Danto

trajectories of leptocephali, the flow of glass eels, or the descents of silver eels downstream during the announcement of the meteorological winter. It is a very Ingoldian fish.

Taiga conifer will be used by fishermen of another migratory species: the lamprey, with their fishing dams in the estuaries of Latvia, around the Salacgriva region. The pines are cut during the winter by the fishermen's cooperatives, in forests far from the fishing grounds, which is symbolized by this composition of collages, with a fictitious border between the tree and the estuary of the Salaca river.

The stakes are driven by the fishermen to block the bed of the river, and traps are positioned on the structure. The horizon, in winter, merges, as shown in the second part of the composition: between the frozen river, the reedbeds of the snow-covered banks, and the sky laden with clouds heralding snow, one can barely distinguish the dam from the upstream or downstream in the distance. The composition demonstrates the functional, vital link between the fir tree and the lamprey, through this association of a plant and an animal, which Man unites in the bed of the river for subsistence purposes.



Figure 6 Résineux donneront lamproies © S.Allais-Danto

5 Translation of a Changing Coastal Boreal Social-Ecological System

The work of synthesis of this project is represented below. It demonstrates the difficulty of synthesizing the social-ecological systems encountered in winter weather. The voluntary segmentation of the collages exposes the ambivalence of the observations. On the one hand, the micro-socio-systems investigated have been the subject of long sedimentations. But like the Anthropocene, they are disrupted by major changes, mostly induced by the hand of humans. The double meaning of the word *temps* in French (*temps* as ‘time’ and *temps* as ‘weather’) symbolizes this fragmentation into a mosaic of uses that are perpetuated, but adapting, even transforming, by losing historical connectivity (also represented in the work by these micro-compartments in pictorial interactions, dispatched in the painting, which respond to each other, echoing) of these social-ecological systems, and their continuums (spatial: Land-Air-Sea, or temporal: Past-Present-Future).

This segmentation also reflects the contemporary divergences of scientific, political and ontological categories, which are no longer shared. Politics, or at least modes of government, lead to the enactment of a calendar of practices, freezing the seasonalities of traditional exploitation of the environment on opening and closing dates, in a fixist approach to environmental uses, running counter to the overcoming of the Nature-Culture dichotomy exposed by French famous anthropologist Descola.

This fixation by politics is found even more out of step by the misdeeds of climate change at work throughout the world, and particularly in the region, especially in winter, the season when sea ice no longer appears in coastal re-entrants.

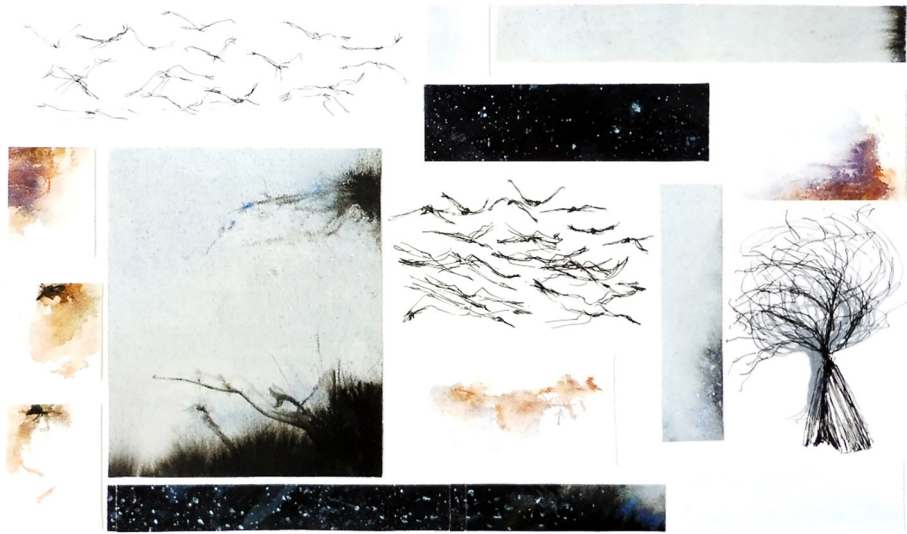


Figure 7 Social-Ecological system during winter time on northern coast
© S.Allais-Danto

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“Your and My Elements Are the Same”. A Conversation with Vibha Galhotra

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Abstract Indian artist Vibha Galhotra's artwork spans painting, installation, public engagement, performance, and land art in order to encourage people, across all walks of life, to learn directly from Nature. This conversation with Galhotra explores a worldview that she deeply embraces, one which counters the anthropocentric, growth-oriented relational dynamic that causes wars, climate change, biodiversity crisis, and more. Along the way, the discussion ranges from how Vibha's own relationship with Nature has changed since childhood to emotionally moving encounters with religions across the world to an Indian philosophical point-of-view that is rooted in intimate connections between the material world of the cosmos and all life on Earth.

Keywords Environmental art. Conceptual art. Humanism. Cultural criticism. Public engagement.



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In the current era of climate and biodiversity crises, when a particular anthropocentric world view of human dominance over more-than-humans entrenches itself in much of popular culture and thinking, art serves as a potential tool to destabilize this power imbalance and to develop practices that re-establish equilibrium between culture and nature, or even to demonstrate the absence of a divide between them. In order to delve into this relationship and power dynamic, we spoke with Indian artist Vibha Galhotra, whose practice spans and often blends painting, installation, public engagement, performance, and land art.

Galhotra's artworks provide not just a global wakeup call but also a way for individuals to heed that call by directing attention from oneself and one's own society towards inner and outer material as well as communal relationship with Nature. Galhotra's interactive artworks encourage participants to engage their senses in order to learn directly from Nature about the state of the environment and how human processes co-create this state.

By weaving together cultural influences with societal and environmental concerns, Galhotra creates a visceral vocabulary of engagement with global environmental issues such as the devastation of war, politics of water, climate change, and dramatic shifts in biodiversity. When speaking about these environmental concerns as well as her artistic practice, she refers to notions like "listening", "reading nature", "one world", "reclaiming", "the five elements", "weaving", and "fabric". Doing so, she allows people to imagine and engage with a complex, interwoven reality created by many different beings, including human and more-than-human, who hold many different perspectives. She shines a light on how those perspectives result in complex repercussions on the individual, community, planetary and even cosmic levels.

The material of Galhotra's weaving includes what academics divide into disciplines like ecology, politics, philosophy, religion and economics. However, for Galhotra, together these form a holistic cosmos where they do not exist separately from each other. The resulting tapestry demonstrates how particular approaches to human relationship with nature and different systems of (il)logic lead to actions that create direct repercussions on all of the communities and natural elements within the environment. These consequences are never isolated.

In our conversation with Galhotra, her unifying perspective, non-dualistic logic, and community based approach come to life through not only her choice of words and their conceptual meanings but also

via her artistic practice and the world of her art. She depicts an animated tapestry that brings to mind what anthropologist Tim Ingold calls "a writhing mesh of lines". As he explains,

The Latin verb for "to weave" was *texere*, whence come our words "textile" for fabric, and "text" for writing... For the living world, in truth, is not connected like a net, but a writhing mesh of lines. Knotted in the midst, their loose ends never cease to root for other lines to tangle with¹

This tangling mesh of perspectives and their corresponding reactions, woven into the fabric of Galhotra's work and artistic practice, helps to forward the cause of securing our interconnectedness within this world where every being plays an essential role.

LAGOONSCAPES Vibha, please provide us with an overview of how your artistic process and your relationship with nature have evolved over time, including what first triggered you to create art around these interconnections.

VIBHA GALHOTRA That's a good question. It goes long back because I never planned to work on nature as such. My father held a transferable job, and so I often moved from one place to another. I used to find my friends in nature first, and then in people, or in my schools. I never thought that I needed to advocate for its safeguard because I always thought nature was more powerful than human beings. But, this reversed as I grew up. In India we believe "Yat pinde tat Brahmande", which is basically, 'what exists in the universe, it exists in you and me'. As in, we are all made of five elements. I come from that belief system. So, for example, when the harvest season comes, we have these festivals. In Punjab, Lohri is a festival when you make a bonfire to say 'bye-bye' to Winter. And then the new season comes in. If you come from that mindset or that thought process, how can you ignore nature?

When I came to Delhi and I encountered the river there for the first time - the same river coming from my hometown - I was completely devastated because I had seen that river in its full blown glory. I was completely shattered. I thought, "This is not a river. This is a drain. This is a cesspool". So that was it. Subconsciously, I started documenting. At that time, I did a lot of photography, so I started documenting the river three or four days a week. I think that then I just had a lot of leisure time. <laugh>

¹ Ingold, T. (2020). "Lines, Threads & Traces". *TOAST Magazine*, 31 March. <https://www.toa.st/blogs/magazine/lines-threads-traces-tim-ingold>.

As I was chatting with people there, I learned more about the river, where it comes from, how the state divides the river water, and how the nation divides the water. So, you know, that is when politics also began coming in. I started thinking that there is not just one thing I have to consider. At that time, conceptual art was not very popular in India. We came from the British model of schooling where making things spectacular was a key to making art. So, breaking through that and thinking about how I can create this narrative or take a social responsibility as an artist became really important for me. I started advocating that we cannot make the river dirty. I had no clue how I was going to pursue my art career, but socially, I wanted to do something for the river or the environment.

This is how I began my journey as an advocate for nature and as an artist. I thought, it is much easier for me to convey or express myself through art and to engage people more - and more people - through that practice.

LS There is one particular story that we found online about a man who you met by the Yamuna River. You discuss how that encounter shaped your own perception and artistic relationship with the river. Please share this story with us because when addressing environmental concerns on a community level, we often must surmount obstacles caused by perceptual differences.

VG When I was documenting the river that day, it really was like a cesspool because I think only 1% of the water was coming to the river at the time. And, in my concern, I stopped that guy and a woman, who do ancestor puja there every Saturday and Sunday. They don't view the river as dirty. You know, they might think of the river as dirty at a different corner but not when they are in puja or prayers mode.

So, there I was encountering this duality between belief and reality. I am seeing the river as dirty, and he's saying it's not dirty. And he came to fight with me, saying, "How dare you call my mother dirty?" That was the moment when I first reflected, "I have to do something here. I need to engage people on the riverbank itself".

So, I thought of doing a performative work, which was like action-painting. I took my canvases to the river and then started throwing the muck, or the sediment, from the river [\[fig. 1\]](#). That is when my actual shift in my practice happened. I had never performed before, anywhere. I had worked within the landscape before that occasion, but I never had performed for the public or in the public space. So in that public domain, when I worked, it was quite challenging. I learned a lot within that process because, you know, you cannot break a belief system.

My thinking was, "Okay, I am coming from logical thinking, so they don't see what I am seeing. And, my perception is different than theirs". It was a very interesting thing to notice or observe. From then onwards, I started looking at religion as another cultural aspect to add into my practice. I already was considering politics, economy, and ownership. Then, there was this addition of culture to my research.

LS Speaking of politics, religion and the other domains that you just mentioned, what is your opinion on the Anthropocene as a framework in the context of global environmental justice? Are there any gaps that you see in this particular narrative which you address in your work?

VG I think humans have impacted the earth a lot. I mean, we are not unaware of that. And, the extraction has, let's say from 1995, really accelerated. I don't know if I want to term it as Anthropocene or not. I think there is a big debate about what to call this era - 'Anthropocene', or 'Plastocene', or 'This-o-cene'. It's debatable as a word itself, but the human impact is not. Look at how wars are money-making machines for power houses. We need to look into these things, such as how we are being bluffed by the people who are in power. So the Anthropocene is one factor, and power is another. Then, there is ownership. They're equally weaved together. They are weaving a fabric, which is confusing the masses. And, there is yet another element - responsible journalism.

I think we need to start reading the environment like in India, where we say that a plant speaks for itself. For example, if it's unhealthy or when it changes colour during certain seasons. I think the environment can tell you a lot. I am more interested in speaking with nature or hearing from nature rather than looking into technical things and 'isms'. Artists are not speaking about isms. I'm not going to get into that. <laugh>

LS Is there a way that art can be de-anthropocentric? How could we address anthropocentrism in art in general?

VG As I mentioned previously, "Yat pinde tat Brahmande", is a very small phrase, but it says a lot. It speaks of a universe in itself. So, if I talk about the human-nature relationship - and if I can speak my mind here that people are fighting for religion - religion was meant to give people a sense of belonging. Hinduism is not a religion, right? Hinduism is a philosophy. It's basically written as a philosophy on how one should live on the planet as a person who can navigate his or her space within the natural environment. While this is how the whole text was

written, I think it was misread by certain people who confused Hinduism as a religion.

I was in Israel, where I did a work that asked people about the human-nature relationship. I went to all three of the Abrahamic religions and their experts – the religious gurus – who shared knowledge with me about what was written in the ancient texts on how one should live in equilibrium with nature. Every philosophy has written beautifully about this relationship—we need to respect nature, and only then, nature will respect us back. We started thinking that we are bigger than nature, which is not true. COVID-19 was a warning that even a little, little germ – a virus – can really mess with our bodies and with our societies around the world.

I was looking at situations and why we are not going back to that situation of one world. In Greek philosophy, they talk about how it's one world. If you go to Africa, they talk about Ubuntu, which is about a human-nature relationship. In India, we talk about this. It's like every religion has something to say. In Israel, they gave me a translation from Arabic – 'What is our relationship with water? What is our relationship with air? What is our relationship with the mountains?' Everything is like those five elements, which makes us those same five fundamental elements. They are important to safeguard. And right now, I think doing so is more important than anything else in the world.

I made a series of works called *Life on Mars* [fig. 2], which neither condemns nor appreciates that concept. However, it is an absurd idea, "I am not going to make this planet better, but I'm going to spend more money to go to another planet in order to colonize that space". Why are we not thinking instead that we can make this world better?

LS In reference to more work that you have done in the Middle East, like the installation *The River Jordan*, and how you used food as an artistic medium in order to stimulate discussion around water security and water issues—please tell us about why you chose food as the medium to achieve this.

VG That work, *The River Jordan*, was the second iteration which I created in Jerusalem, and it looked at the ownership of water. We consume water directly and also indirectly through the vegetables and animals that we eat. And, our bodies are composed of approximately 67% water. I regularly check data graphs which show where waterborne diseases are day-to-day sicknesses. This scientific research shows waterborne illness is being reported in high numbers by people who live near contaminated rivers in places such as Africa, India, and Mexico. In India, everybody's stomach is upset all of the time because the

food is not hygienic and neither is the water that is sprayed on the vegetables. Also, the vegetables are grown in this kind of water. So this is how and why I decided to speak about ownership of water through food [fig. 3].

In Jerusalem, I was talking about the Jordan River. So I looked at the political ownership of the water there. I looked at Palestinian practices and Jewish practices. We mixed Arabic food and Jewish food but took into account what food is grown where. The result was this fusion on the table as a map of the river. People could not really make out what we had done at first. Then as people experienced and conversed with me, they saw this map of the river, which is also a map of the food producers and what is grown in which area.

I didn't have to say much. People were in tears. And, while consuming food, they discussed what an ironic situation that we live within. We, as common people, do not want any kind of conflicts between us. We are just human to human, you know? I can be friends with you. I can be friends with others. He's black, brown, or white. It doesn't matter. We get along because our soul connects us. So, I think that this practice, this experience together around the table, reminded us of those connections. It was a very immersive practice.

I really enjoyed making that work because it was the beginning of my thinking about differences between human beings. I frequented the Old City, where it starts with one community, then you enter into another, then you enter into the centre where everybody is together, and then you go to another side where other communities live. And, it's such a beautiful city. I made friends all around the Old City, and they all fed me food. They all gave me gifts. I reflected, “My God, they're so warm. Why are they not warm with each other?” So, I thought, “Fine. It's a fight for land, or it's a fight for power”.

LS It gives chills to think about. The energy of Jerusalem is so incredibly palpable. And, when you think about food and breaking bread together and how this creates community among people of different cultures without anyone having to use words, it's really special.

VG I was there in the year of Shmita, which is the year when they give rest for the land to recuperate. Modern agriculture has forgotten that practice. So, in every culture, it has been written that we need to respect and give rest to the land. Otherwise, it will not produce. But with contemporary consumption, we do not offer rest to the earth. We extract big stones. We extract metals. We extract everything, creating this imbalance on the planet.

My new show, *Silent Seasons* [fig. 4], looks at how silently things are changing, but we ignore it. If you read the reports, jellyfish populations are increasing all around the world because seas are warming. When jellyfish populations grow, the marine diversity diminishes because jellyfish eat everything. If this diverse marine life goes away, the sea health will change. If sea health changes, it will change the seasons [fig. 5]. So, it's interconnected. It's very easy to understand, but we make it complicated. We need scientific data to prove this or that. For me, that's not required. The sea is telling me, "I'm changing".

LS It's really interesting to hear about your affection for nature and your ability to observe and work along with it through Land Art. Do you think the practice of Land Art is done differently today than when the art movement began?

VG Oh, that's a very interesting question. I never thought about it because land art works with the ephemeral. Whenever I'm in the landscape, I am very responsible with how I use materials. I often use found material that is biodegradable. I have used discarded fabric from all around the world. India is a second-hand clothing market. One NGO gave me clothing which they had to discard because the clothing was donated during the COVID-19 epidemic and so they couldn't use it. The clothes were in really bad shape, and so I repurposed the cloth to write this note through Nature, or by Nature, "you don't own me" [fig. 6]. After COVID-19, we immediately opened our markets. And now, if you come to India, the heightened consumption level is like a form of revenge. Revenge-buying is happening all around the world. India was flooded with things, and I thought "We have to do something". I chose a particular landscape for this installation because it is a place that is changing drastically since it was taken away from the indigenous people from there and then given to the whole of India. Anybody with the means can buy land there now, including big companies. And, you can see the endless growth that started happening in that place. This area's mountains are arid. However, when people started growing trees there, more rainfall began. With this rainfall - and where there are no trees - the mountains started eroding, which resulted in landslides. People, who are not from that land, did not account for this circle, this cycle. They just started making policies for a 'green revolution' kind-of-a-thing where. "Oh, we have to go green and we have to grow more trees". No, that place is not for trees. And, nature directly tells you this. This is why I wrote these enormous letters. They were 65-foot long and made of these discarded clothes to claim, by Nature, "you don't own me". A mountain says, "I'm gonna reclaim

myself. Your being there or not being there doesn't concern me. You are just another species on the planet". That's what I made the work for.

Ólafur Eliásson's work, which is a very different kind of practice, really turns heads. He also makes us think about these things, but the kinds of resources are very different from mine. I think his work has changed a lot of minds. He's changed me as a person, as a thinker. So, while there exists many different practices among land artists, I don't see much difference between past and present land art practices. Ultimately, the difference depends on your resources and your site specificity.

LS There is an opinion about Land Art being originally a very male dominated space and how some artists within the movement imposed their own imprint onto the landscape, for example, painting it. It seems like Land Art today has come to a different place?

VG It was the Sixties when Agnes Denes started her pioneering Land Art practice, eventually creating *Wheatfield - A Confrontation* in New York City. If you Google Land Art and New York, then her work comes up first. Barbara Hepworth really fought for her own space within a male dominated art world. As did Lynda Benglis. I think those people have done really important work. They have created the space.

I personally didn't experience that kind of discrimination between male and female except during my college days. Today, I think financially speaking, it's a male dominated place, but that's a very different debate. It's an interesting thought, but I never undermine myself thinking that I am female. I never take that as a 'thing', and I always do whatever I want to do. I expand myself. I expand my teams. I expand everything to go larger than life because, perhaps, that's my way of dealing with the male world around me. So I constantly have to prove myself. There were times when I thought that I was not being given the dues which I expected because perhaps people wanted to invest more in male artists for their market viability. Investors used to think that a female artist will become a mother and then vanish from the market, and therefore it is not wise to invest in her. The Indian art market is mostly supported by the commercial side of art and so, initially, there were much less funds for female artists. Now, there are increasingly more women artists in India, and they're doing brilliant, fantastic work. Artists like Nalini Malani, Nilima Sheikh, and Mrinalini Mukherjee have carved a lot of spaces for me.

LS Whether it’s the movement itself or the theory, does ecofeminism play into your practice?

VG As a female, I think there is extra care for everything. If someone wants to tag me as an ecofeminist, I am fine with it because I am an ecologically aware and concerned person. However, I do not wish to tag myself as anything. I am just a working observer in these times. I think historians or writers are doing their job by using this kind of term. If it’s your observation, I’m happy to accept that term. For myself, I advocate that it is a collective responsibility to bring attention to these things.

It’s one reason why I sometimes make larger-than-life work. For my recent work, *Future Fables* [figs 7-8], I used the rubble that results from demolition of houses around Delhi as well as illegal dumping of that rubble around the city. I gathered and incorporated this rubble into my work. In other spaces, like when I was looking at the pictures of war in Ukraine and Gaza, I saw only the element of trouble. The debris in those photos is evidence of what happened here. Or, for another example, if you go to climate affected areas, only the debris will tell you that something happened there. The houses are broken. People once were living here. There once was a life, but now, there is none. So, I wanted to consider those war affected areas. Forced migration occurs due to climate change, war, and the rise in real estate prices. India is experiencing the latter. Through collecting rubble from Indian urban zones, I am speaking metaphorically about the war zones and about the memories left behind. Stone tells many stories. Stone has a memory itself. Cement doesn’t have that. If you see *Future Fables* in person, you’ll see that there are many marks and several different kinds of materials. They tell a story of time and the people living in those houses, which are now broken. I was thinking, “How can we repurpose this waste material? What have we created as a heritage for the coming generation, as art?”

I don’t focus solely on the art audience because I want for the general public to engage with my work. I don’t want to make art only for those people who are already aware of the issues. So, I try to engage with students and different groups as much as possible. It’s not about 200 people showing up at my events. I really enjoy it if one person can change, you know?

It is very idealistic to say that big changes are required globally, rather than focusing on the ones needed in developing countries. In India’s smaller, tier-2 cities, you can see how people are dealing with day-to-day amenities. I worked on a research project in Punjab where the waters are so contaminated that people must walk 15-20 km everyday for clean water. This is literally an extra job for them. Here we are, living in the age

of science and encouraging our kids to pursue global studies. While simultaneously, some people must carry water like this every day. It's a waste of time.

There's another state in India called Maharashtra where there is the story of water wives, which the BBC has covered. There are many widows in the village because men were dying earlier than the women. A man, who is already married, will take a widow as an additional wife in order to take care of her. She then becomes the water wife, whose duty is to walk for two hours from home to gather and return with pots of clean water on her head and hips. This is her job. There's no love, nothing. Whether she produces children, or not, doesn't matter. If she produces a child, then the man will marry a third wife, who becomes the next water wife. Stories like these definitely will change you as a human being. These are the kinds of absurdities I play with and see where they go.

LS Speaking of stories, we want to ask you about utopia and your exhibition titled *Utopia of Difference*. How do you see the role of utopia in our contemporary culture, considering also the context of the Anthropocene?

VG In the last five or six years, the word 'utopia' has taken a backseat because nobody knows what utopia is. If you ask Elon Musk, his utopia is living on or colonizing another planet or creating these cars that will take you to space. I think that's the utopia I can talk about.

Politically in the world right now, the situation is dire. We don't know where we are. We don't know what we want. During COVID-19, as we were being given the vaccination, we were not sure whether to take it or not, but certain advertising made us believe that this will be good medicine for us.

I come from a pre-computer age. My utopia, at some point, was that I wanted to learn math. I wanted to learn certain things. Now, all of the knowledge is at my fingertips. I don't have much of a surprise element left for utopia. I think that's why the word utopia has taken a backseat. There are not any surprises left anymore. If I go to Italy, I will know where I want to go. I will not get lost in Venice. I used to get lost there, but now Google helps me to navigate. Navigation made things easy as well as killed the element of surprise. Sometimes you want to get lost. So, leave the phone at home. These are the things we need to think about.

Now, my utopia is that I find a space where I don't need to compromise on modern day amenities, but I can cut down on my consumption. That social acceptance of it has to be there because advertising tells you to buy this brand or that brand, this

car or that car. However, you just need a car to move. You don't need big brand cars. These are the things that we must eliminate. That's my utopia.

If I'm thinking anthropogenically, I also want to stop the unnecessary excavation of the earth. We are living in this age of science. We need to find a new kind of fuel or perhaps go electric, if the electricity can be produced by air or something else. I'm not the best person to do that, but that is my utopia. And, looking at food production, I think older methods, like wild farming, were equally good. We do not need a lot of chemicals to produce food. Governments need to think carefully about what benefits everyone, rather than just the top percent of the wealthy.

We are living in absurd times. I am perhaps middle aged <laugh>, depending upon the ultimate length of my life, but my idea is to tell the youngsters to listen to the environment. Listen to the birds, listen to which birds are missing from your own town. In the last twelve years, there are three types of birds that no longer live in Delhi. There are no weaver birds or sparrows there anymore. They might be in some remote areas or the forests. The environment can tell you these things very easily because we are part of it. We have to re-look into it, let it reclaim itself, and then just agree with it. If a natural calamity happens and I die, I am fine with it because I think we have abused nature quite a lot. It will reclaim itself. It's okay with me. <laugh>

LS <laugh> Transitioning from present day crisis to an origin story, "The Churning of the Ocean of Milk" with Vishnu, and your artwork that is related to this story, it appears that you created it on the same riverbank which you discussed earlier as the place where your art practice shifted? The myth itself is about all of these interrelationships and all that is born from the process of the churning. Please talk with us about it in the context of your artwork.

VG My family came from Kabir philosophy. So, they never told us these traditional stories. When I read about these stories in textbooks, I was very fascinated by them. These stories give you imagination. They make you think about the ultimate things, like death. They tell how the gods and goddesses came into being. I used to ask my father why we have so many gods and goddesses, "It's like 33,000 people with gods and goddesses - I'm confused!" <laugh> He said, "You need not think of all those,

you just follow the Kabir philosophy".² Kabir philosophy instructs, in the form of a story or in a little poetic way, how to live and what is the right way of living.

Everybody talks about these stories. I was very confused, "What is an avatar?". You know, there are ten avatars of god Vishnu. I may connect this story to the story of the man who actually caused me to change myself for the environment when I was in this theatre of belief and reality. I started thinking about these belief systems and looking at the stories, which are about human-nature relationship, and the Vishnu story of *Manthan* (churning) came up [fig. 9].

Manthan is basically a sea-churning episode that happened between demons and gods because they wanted to find the elixir of life, so they could become immortal beings. Lakshmi, the goddess of money, came from this churning process. As did a goddess of sexuality, a goddess of education and so on. They churned the whole sea, and everything came out of that. It is kind of an origin story- everything was water on the earth, and then everything evolved from the water itself.

I saw that what we believe is hypocrisy because what we are doing to the water now is completely different. That's why I wanted to remove the sludge from the river and use it as the medium to create the works in the series *Sediment and other untitled...* as well as feature it in my short film *Manthan*. It offered a way to connect with people from the masses in addition to the audience of so-called intellectuals or people who were already the converted ones. *Manthan*, the moment you mention it, is a story that everybody recognizes in India. Everybody can relate to it.

LS You've spoken about engaging different communities and groups of people. How can we integrate this type of knowledge that is produced in academic circles and the type of knowledge and the experience of people who don't come from such backgrounds? How can we establish an exchange that could be helpful?

VG Art is a really great medium to connect people. Social media is a very powerful tool as well because it can engage across the world. If you think creatively while using that tool, it's amazing. Nowadays it is very difficult to take people out of their houses, or out of their comfort zones, to actual sites. Social media

² The number 33,000 (or 33 *crores*/33 multiplied by ten million) of Indian deities is a metaphor indicating a real multiplicity, possible in universal terms, but incalculable by the human mind. Kabir is a medieval Indian mystic who lived in Benares in the fifteenth century; he differently advocated a non-dual doctrine in which the concept of God is defined as *nirguna* (distinctionless).

becomes the knowledge partner. I think responsible use of this tool can provide a great way to share knowledge and tell stories. I am always telling a story through my art. Social media is a place where one can condense a story into 20 or 40 seconds. It makes for quite the creative challenge because sometimes the art itself took one or two years to make. That's a very different kind of process. It's an interesting way to think, and it's a very important tool to engage people. My idea is that the heavy knowledge of researchers and thinkers can be transferred through social media. I am trying my best to spread the word through my art. As a visual artist, I prioritize the visuals to capture interest in the art and in the writing about it. Then a link directs them to more. Everything needs to be so quick.

LS In reference again to "Yat pinde tat Brahmande", or "Whatever is in the microcosm is also in the macrocosm" - we would love to hear about how it is specific to your work that addresses climate change and for example, in your choice of using ghungroos to create the work you based on mapping the "Great Acceleration" [fig. 10].

VG As I mentioned, your and my elements are the same. We breathe this air, and that is why we exist. When I started thinking about the five elements, I looked at the five platonic elements and how Plato discusses them like different kinds of molecular shapes which make everything in and on the planet. Thinking scientifically, those are the molecules that actually form you and form the universe. Thinking philosophically, the universe is made of the same material as what you are made of. And, you are made of the same material that the universe is made of. This is why we all are coexisting beings on the planet. Nature is constantly changing. Why? Because it's breathing. It is also a living being, and we need to consider that. I believe in this more than anything else. I feel that the universe and I are not two separate entities, but we are one. When I die, I will integrate into it and I will fossilize after a certain point.

The philosophies are observations from nature itself. It was not that somebody was born with that philosophy and just wrote about it. They were sitting and observing the trees, the light, the shades, the sky, the changing of colors. I think we have stopped thinking about those things.

So, ghungroos is a material which is very significant in my work. I previously used seeds, but seeds are a very ephemeral material and so nobody wants to buy seeds for their art collection. One of the collectors came to my studio and she said, "Who is going to buy this ephemeral material? India does not have the advanced kind of storage or archival housing that it requires. It

is going to break, and it is going to look like trash in the house". It really disheartened me because I come from a practice of land art where I use entirely ephemeral material. Eventually, I decided to encase the natural substance in synthetic resin. This was a very conscious choice.

After this conversation with the collector, I researched the ways in which certain tribal people used little bells in their jewelry to replace the seeds that they once wore to make sounds when they walked in the forest in order to alert other species of their presence. So, when I used this material to create the first work with it, I thought about how very fascinating that this same material, which makes sound for this group of tribal people, is silenced in my work. I used the material in this fashion as a way to express issues that are being silenced. It resonated with me. I also continued to use this resin because people want to buy glitter and gold, very shiny objects. In this way, the choice of material also comments on the market and viability of the art. It's a two-way commentary—one where the object's purpose to make sound is being changed in my work and the second is in regards to the artificiality of art markets. Otherwise, I would have used plain seeds, which would have been more organic, more human.

LS You use mediums with multi-layered meaning—like human-made resin beads which are also representative of seeds—in such beautiful ways, while at the same time demonstrating this complex interrelationship expressed in the "Yat pinde tat Brahmande" principle.

VG It is the beauty and the beast. The vulgarity. Sometimes, beauty also can be vulgar. This is where I come in. I use these subjects or photographs of the deterioration of the earth or deterioration of the water and then I convert them into this very beautiful, ornamented material. Because this is what my age is, I'm celebrating even the vulgarity of my time.



Figure 1
Vibha Galhotra, *Sediment and Other Untitled...* 2012.
Sediment from river Yamuna on board, 60 × 48 in

Figure 2
Vibha Galhotra, *From Life on Mars* (series). 2019.
Ghungroos, fabric, wood and steel, 72" dia × 3"

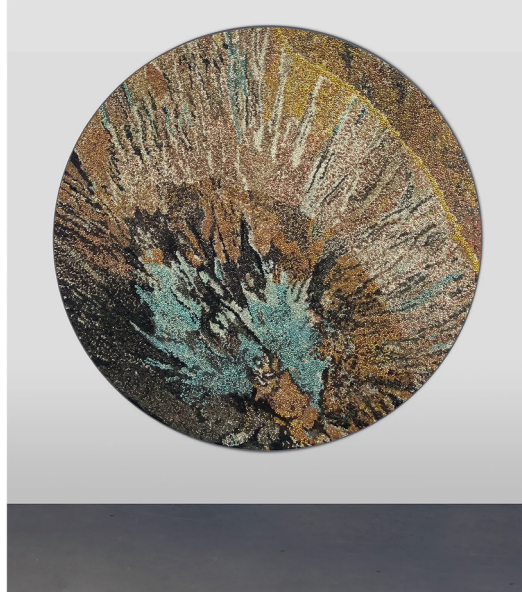




Figure 3 Vibha Galhotra, *Who Owns the Water? Interactive Dinner*. 2022. Jerusalem, Israel

Figure 4 Vibha Galhotra, *From The Silent Season: Un(promised)*. 2022. Film, single channel panoramic projection. 17:23ms

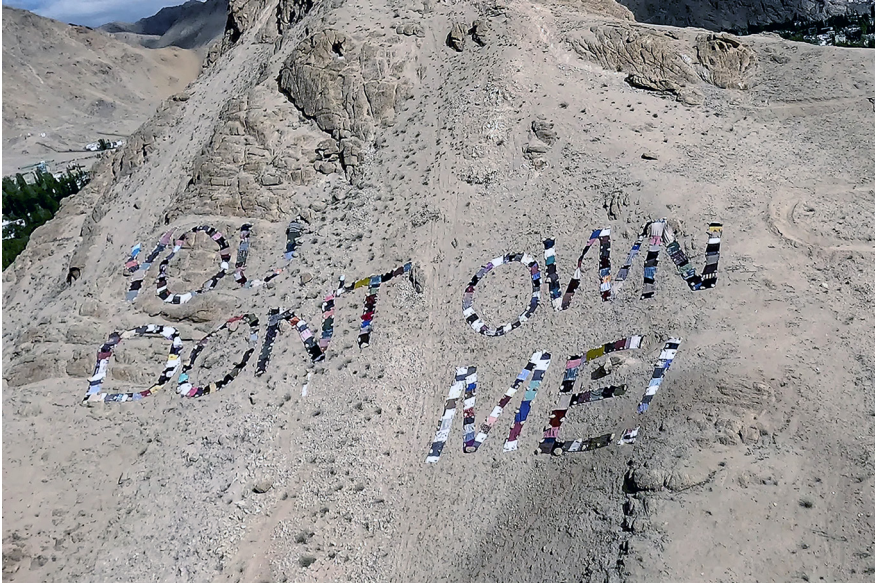


Figure 5 Vibha Galhotra, *Conference of the Invisibles*. 2022. Etched glass, 48 × 96 in in each of 13 panels

Figure 6 Vibha Galhotra, *You Don't Own Me!* 2023. Site specific, found material. Sa Ladakh, Ladakh, India



Figure 7 Vibha Galhotra, *Future Fables*. 2023-24. An architectonic sculpture, found rubble, metal

Figure 8 Vibha Galhotra, *Future Fables*. 2023-24. 6-channel video in loop, 32 in monitors each

Maria Kopylova, Stephanie J. Lindsay
“Your and My Elements Are the Same”. A Conversation with Vibha Galhotra

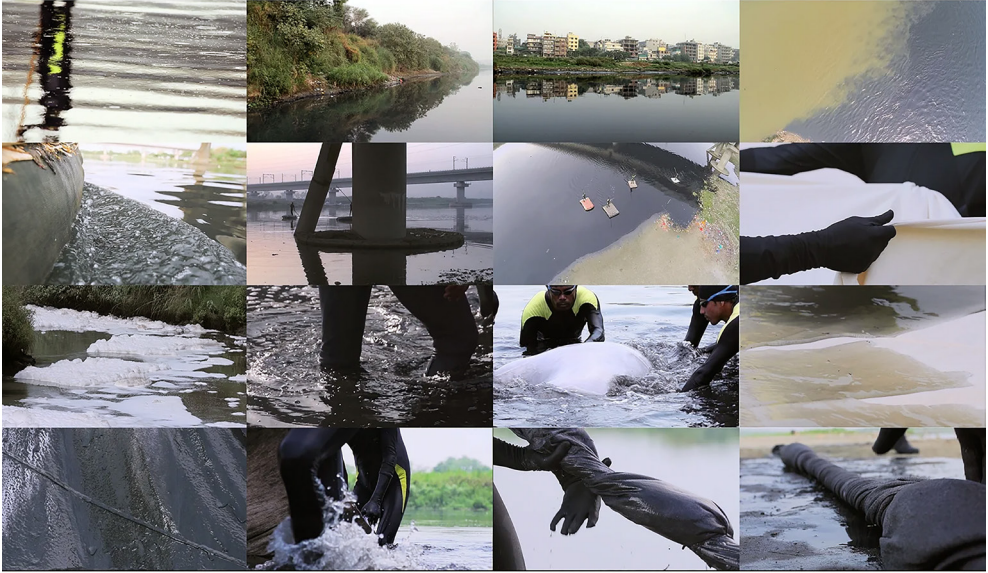
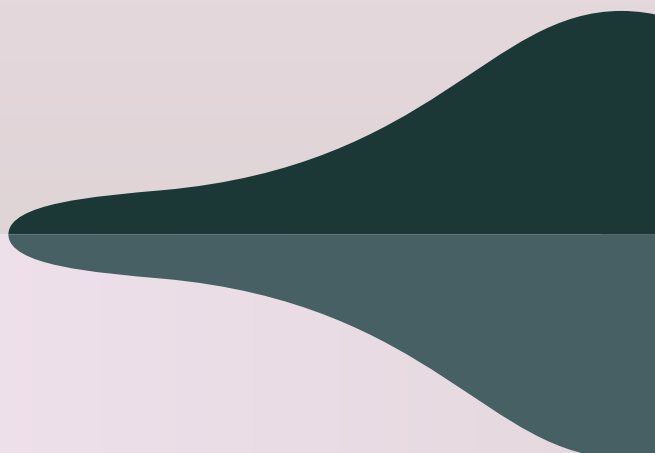


Figure 9 Vibha Galhotra, *Manthan*. 2015. Single-channel film, 10 min. 43 sec.

Figure 10 Vibha Galhotra, *Acceleration*. Ghungroos, fabric, wood, steel, 2" × 117"

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